CARINGBAH HIGH SCHOOL

ELECTIVE INFORMATION BOOKLET

STAGE 5

Year 9 and 10
2020 - 2021

THE RoSA CREDENTIAL

The NSW Education Standards Authority (NESA) issues the Record of School Achievement (RoSA) to eligible students who leave school before completing the Higher School Certificate (HSC).

The RoSA is a cumulative credential, listing all mandatory and additional Stage 5 and, where applicable, Stage 6 courses completed by the student, along with the grade awarded. The RoSA credential also lists any courses commenced but not completed, any minimum standard literacy and numeracy test results (if sat), and the date of leaving school.

The RoSA is useful to students leaving school prior to the HSC because they can show it to potential employers or places of further learning.

The NSW Department of Education follows curriculum courses as mandated by the NSW Educational Standards Authority (NESA). If students successfully complete Years 7 to 10, they are eligible for a Record of School Achievement (RoSA) credential, issued by NESA.

To qualify for the RoSA, a student must have:

- Attended a government school, an accredited non-government school or a recognised school outside NSW
- Completed courses of study that satisfy NESA curriculum and assessment requirements for the RoSA
- Complied with all requirements imposed by the Minister of Education or NESA
- Completed Year 10

The Department of Education requires students to complete the following mandatory curriculum for the RoSA:

- English (500 hours by the end of Year 10)
- Mathematics (500 hours by the end of Year 10)
- Science (500 hours by the end of Year 10)
- Human Society and Its Environment (400 hours by the end of Year 10)
- Languages other than English (100 hours by the end of Year 8)
- Technological and Applied Studies (200 hours in Years 7 and 8)
- Visual Arts (100 hours by the end of Year 8)
- Music (100 hours by the end of Year 8)
- Personal Development, Health and Physical Education (300 hours by the end of Year 10)
- Electives (400 hours by the end of Year 10)

Schools award each student who completes a Stage 5 course a grade to represent that student's achievement. The grades for NESA approved courses are reported on the student's RoSA and range from A to E, based on performance descriptors as outlined for each Stage 5 course by NESA.

YEAR 9 AND 10 CURRICULUM STRUCTURE AT CARINGBAH HIGH SCHOOL 2020 - 2021

All Years 9 and 10 students at Caringbah High School are required to study mandatory subjects as required by the Department of Education and NESA of:

- English
- Mathematics
- Science
- History
- Geography
- PDHPE

In addition, Caringbah High School students are given the opportunity to study 600 hours of elective subjects. Each elective subject has been divided into two distinct electives of 100 hours each, running on alternate years. Therefore students will study three 100-hour electives in Year 9 and three 100 hour electives in Year 10. For example, Commerce Elective A will run in 2020 and Commerce Elective B will run in 2021. Each elective is a separate course, and neither is a pre or co-requisite for the other. In this way, students can potentially choose:

- up to six different 100 hour electives over the two years
- to study an elective course B without having studied elective course A, and vice versa
- to continue with the same subject(s) over two years, for example, studying both Commerce Elective A (100 hours) in 2020 and Commerce Elective B (100 hours) in 2021, effectively studying Commerce for 2 years (i.e. 200 hours)
- any combination of 100 hour or 200 hour electives over the two years.

MAKING THE BEST CHOICE

It is important that students make sure that the subjects they choose are based on their interests rather than what subjects their friends have chosen, or advice suggesting that a certain subject is good for a future career or studies in Year 11 and 12. Students who choose an elective for any other reason than interest or curiosity up unhappy and under-performing. Years 9 and 10 is often the first time students can have some control over what they study with their elective choices and is the time when students can explore their interests and undertake studies in subjects they would like to try before they begin Year 11 and 12. Please note, there are no pre-requisite elective studies in Year 9 or 10 that impact student studies in Year 11 and 12 with the exception of Language Continuer courses.

In addition to this booklet, students are encouraged to discuss their choices with their classroom teachers, Head Teachers, Year Adviser, students in Years 9 and 10 and their parents.

SUBJECT SELECTION PROCESS

Students will receive an email with instructions on how to submit their subject choices. The email will include an individual password to access Edval WebChoice, an online web interface linked to the school timetable. Students will be asked to nominate **SEVEN** elective subjects and rank them in their preferred order; however, only **THREE ELECTIVES** will be studied in 2020. The selection process for elective choices in 2021 will take place in early term three next year.

Students will have until midnight, Sunday 21st July to make their preferences for their 2020 electives. It does not matter how quickly they make their preferences, although students are reminded that the ranking of their preferences is important for their confirmed subject list.
After this date, the Edval system will run an algorithm which will take into account all ordered preferences and will create subject lines that maximise student choice. The Principal and Senior Executive team will then consult to determine the final number of classes and subjects running,

based on the students' choices. For staffing reasons the school cannot run every elective offered in this booklet.

Once lines have been established, students will be issued with the elective subjects they have been successful in obtaining.

Please note that the offering of a subject is not a guarantee that the course will run. Final classes being run and their alignment on the timetable will be based on overall interest levels and whole-school considerations.

CHANGES TO ELECTIVES

Students requesting changes to electives must supply a letter from parents/carers requesting the change to the Deputy Principal within the first three weeks of Term 1. Changes can only happen if spaces in relevant classes are available.

SUBJECT ACCELERATION

Caringbah High School is offering acceleration in four Stage 6 subjects. This means that the Year 9 and/or 10 students study a Stage 6 course instead of a traditional Stage 5 elective, completing the HSC earlier than their peers. The courses and models of acceleration are:

Stage 6 Course	2020	2021	2022
IPT & Investigating Science	Year 9 students will complete the Preliminary (Yr 11) course	Year 10 students will complete the HSC course and sit the HSC exam two years earlier than their peers	
Mathematics Advanced & Extension 1	Year 9 students will complete Year 9 and 10 coursework in one year. All accelerated students will be in a Mathematics class together and will also study a Mathematics elective to ensure enough hours to complete two years of study in one	Year 10 students will complete the Preliminary (Yr 11) course	Year 11 students will complete the HSC course and sit the HSC exam a year earlier than their peers
Design & Technology		Year 10 students will complete the Preliminary (Yr 11) course	Year 11 students will complete the HSC course and sit the HSC exam a year earlier than their peers

Students wishing to undertake an accelerated Stage 6 subject must complete a comprehensive selection process undertaken by the relevant Head Teacher in consultation with the Principal. They must be aware that participation in the accelerated program will require attendance of lessons outside of traditional class times (usually mornings).

Usually students would only be allowed to study one accelerated subject and they must be able to demonstrate by means of a personal education plan how participation in the course will benefit them.

Students will still be required to take two other elective subjects.

Students who are interested in undertaking an accelerated subject need to complete the *Individual Learning Plan - Accelerated Study* form (page 37) and submit to Mrs Young by 26th July. These students should still choose seven elective choices in the subject selection process.

SUMMARY OF SUBJECTS OFFERED IN 2020

Subject	Faculty
Architectural Design	**TAS - Mr Smytheman**
Big History	**History - Mrs Fowler**
Child Psychology and Development	**TAS - Mr Smytheman**
Commerce	**Social Sciences - Mrs Northey**
Drama	**Creative and Performing Arts - Mrs Oakley**
Fashion Design	**TAS - Mr Smytheman**
Film and Video Production	**TAS - Mr Smytheman**
Food Technology	**TAS - Mr Smytheman**
Graphics Design	**TAS - Mr Smytheman**
History (Elective)	**History - Mrs Fowler**
Industrial Technology - Engineering	**TAS - Mr Smytheman**
Industrial Technology - Timber	**TAS - Mr Smytheman**
Integrated Computing	**TAS - Mr Smytheman**
International Studies	**History - Mrs Fowler**
Jewish Studies *	**History - Mrs Fowler**
Languages	**Languages - Mrs Babington**
Marine Studies	**Science – Ms Morgan**
Mechatronics and Space Exploration	**TAS - Mr Smytheman**
Media Industry Studies *	**English – Ms Hill**
MOOCs *	**Gifted Education – Mrs Marjoribanks**
Music	**Creative and Performing Arts - Mrs Oakley**
Musical Theatre *	**Creative and Performing Arts - Mrs Oakley**
People Vs Planet	**Social Sciences - Mrs Northey**
Physical Activity and Sports Studies	**PDHPE - Mrs Babington**
Shaping World Views *	**Gifted Education – Mrs Marjoribanks**
Visual Arts	**Creative and Performing Arts - Mrs Oakley**
***School developed course, not NESA approved**	

ACCELERATED COURSES

Design & Technology	TAS - Mr Smytheman
Information & Processes Technology	TAS - Mr Smytheman
Investigating Science	Science – Ms Morgan
Mathematics Advanced / Ext 1	Mathematics – Mr Hughes

CREATIVE & PERFORMING ARTS FACULTY

DRAMA

Course Description
Drama enables students to develop knowledge, understanding and skills individually and collaboratively to make, perform and appreciate dramatic and theatrical works. Students take on roles as a means of exploring both familiar and unfamiliar aspects of their world while exploring the ways people react and respond to different situations, issues and ideas.

What will students learn about?
All students undertake a unit of play building in every 100 hours of the course. Play building refers to a group of students collaborating to make their own piece of drama from a variety of stimuli. At least one other dramatic form or performance style must also be studied. Examples of these include improvisation, mime, script, puppetry, clowning, physical theatre, street theatre, mask, comedy and Commedia. Students also learn about the elements of drama, various roles in the theatre, the visual impact of design, production elements and the importance of the audience in any performance.

What will students learn to do?
Students learn to make, perform and appreciate dramatic and theatrical works. They devise and enact dramas using scripted and unscripted material and use acting and performance techniques to convey meaning to an audience. They learn to respond to, reflect on and analyse their own work and the work of others and evaluate the contribution of drama and theatre to enriching society.

Course Requirements
Students should demonstrate a willingness to perform and explore new context. They should actively participate in group tasks, improvisation and theatre appreciation.

Parents should be aware that theatre appreciation may incur the ticket cost of performances at the time of the excursion. Students are required to have theatre ‘blacks’ for performances.

Cost: $30 per year.

MUSIC

Course Description

All students should have the opportunity to develop their musical abilities and potential. As an art-form, music pervades society and occupies a significant place in world cultures and in the oral and recorded history of all civilisations. Music plays important roles in the social, cultural, aesthetic and spiritual lives of people. At an individual level, music is a medium of personal expression and self-esteem. It enables the sharing of ideas, feelings and experiences. The nature of musical study also allows students to develop their capacity to manage their own learning, engage in problem-solving, work collaboratively and engage in activity that reflects the real world practice of performers, composers and audiences.

What will students learn about?

In both the Mandatory and Elective courses, students will study the *concepts of music* (duration, pitch, dynamics and expressive techniques, tone colour, texture and structure) through the learning experiences of *performing, composing and listening*, within the *context* of a range of styles, periods and genres such as Film music, Rock music, Jazz, Art Music etc.

The course requires students to work in a broad range of musical contexts, including an exposure to art music and music that represents the diversity of Australian culture. The course also requires the study of the compulsory topic, Australian Music, as well as a number of optional topics that represent a broad range of musical styles, periods and genres.

What will students learn to do?

In Music, students learn to perform music in a range of musical contexts, both in groups and in solo situations, to compose music that represents the topics they have studied and to listen with discrimination, meaning and appreciation to a broad range of musical styles. They will develop skills using Music Technology, software programs such as Auralia and Sibelius as well as audio equipment. Elective Music outcomes intersect with the extensive co-curricular music ensemble program.

Cost: $65 per year

VISUAL ARTS

Course Description
The Stage 5 Visual Arts course for provides for a deeper, broader and more extensive learning in the Visual Arts, building on the skills and attitudes developed in Years 7 and 8.

The general aims of the course are to:
- develop a student's creativity as a direct response to their environment.
- allow experimentation with a variety of materials and techniques to develop a student's potential to respond to problems posed in a creative and technical manner.
- develop self-esteem through the art making activities.
- encourage an awareness of how a creative approach fits into the visual and technological aspects of our culture or everyday life.

What will students learn about?
Students are given experiences in a range of creative and technical activities, allowing them to make artworks and bodies of work using 2D, 3D and 4D expressive forms:
- 2D forms include flat works e.g. painting, drawing, printmaking, photography, digital media and collage
- 3D forms include works that involve volume and mass and exist in space e.g. sculpture, ceramics, textiles and fibre, designed objects and environments
- 4D forms include works that exist in real and virtual time e.g. time-based works, film and video, digital animation, documented forms, multimedia and performance works

What will students learn to do?
Students will develop knowledge and the skills to make artworks informed by their understanding of artistic practice, the conceptual framework and the frames. A visual arts process diary will be used to record artmaking ideas and intentions. Students are encouraged to develop a personal visual language to enable them to make more highly developed artistic statements using the concept of a ‘body of work’. This may include one or more individual works that can be related through the interpretation of subject matter.

Art theory, including Art Criticism and Art History, is linked to the practical artmaking. This includes an investigation of how the works of artists and designers have interpreted ideas, issues and events, and how circumstances, beliefs and technologies affect what has been produced.

Cost: $60

MUSICAL THEATRE

Course Description
This course involves a year of practical and theoretical study that elevates students to become a 'triple threat' singer, dancer and actor. The course will explore ensemble and solo singing across a range of repertoire, acting technique for both spoken and sung dialogue, and ensemble and individual dance styles, providing the rigour and skill required to get a foothold in musical theatre.

What will students learn about?
Students will learn about the various aspects of musical theatre, incorporating knowledge and skills from the various disciplines of music, dance and drama. They will also learn about the history of musical theatre, as well as the elements of stage production, including the logistical planning, rehearsal, and presentation of a musical theatre show.

What will students learn to do?
This class will focus on building solo technique and ensemble skills, drawing from standard musical theatre repertoire. Students will be given instruction and experience in the areas of movement and acting through song and dance, and will learn how to convey meaning and to drive a story's plot through vocal inflection, onstage interaction, and physical movement.

Students will be trained to respond creatively to scripts and songs, collaborate effectively with others and make informed decisions about character interpretation. The classes will have a strong practical foundation, which will focus on developing performance material of the highest calibre for presentation at school showcases.

Cost: $50

ENGLISH FACULTY

MEDIA INDUSTRY STUDIES

Course Description:
The media and communications industry is ever changing and connects people across the globe. Those who work in this industry require advanced communication skills and must produce high quality work in tight deadlines.

This course will work on developing essential communication skills through a focus on different types of journalism, marketing and social media strategies. A large proportion of the course will focus on project-based learning, where students will write their own columns for a school newspaper, record news style segments, podcasts and reporting reels.

Media industry studies will provide you with a broad array of skills tailored to meet the needs of this fast-changing landscape. Gain real world and hands on experience in media writing, radio, video and social media content production.

What will students learn about?
Students will learn about the features of four different styles of journalism.

- Column writing
- Foreign and political journalism
- Clickbait and popular culture journalism
- Investigative and forensic journalism

They will also develop a fundamental understanding of the purpose behind journalism and how to write in alignment with ethical framework standards.

They will learn about ‘fake news’, looking at validity, bias and how the media use strategies to pull their audience in.

Students will learn about how to create effective visual and written social media and marking material. For example, how to create a blog or newspaper and promote it successfully.

What will students learn to do?
Students will acquire a portfolio of skills in media practice, equipping them with knowledge of how to execute tasks in print, radio, television and online media.

To improve on their skills in English, students will learn to produce a range of written responses that are commonly used in the media industry. These include feature articles, columns, and discursive pieces.

Examples of activities include students analysing case studies of investigative/forensic journalism and creating a podcast which explores one of these case studies from a critical viewpoint.

The student’s ability in this style of journalism will be put to the test when the teacher puts together a ‘crime scene’ and students must take photos, write a report, ask for witness statements and collaborate a piece of writing that reports their side of the incident.

Students will learn to organise an online platform that communicates the achievements and notable events occurring within the school and wider community.

GIFTED AND TALENTED INITIATIVE

SHAPING WORLD VIEWS

Course Description
This is a cross-disciplinary course based on critical thinking, problem solving strategies, logic and reason. The course nurtures curiosity, open-mindedness and intellectual challenge through the exploration of powerful ideas that have shaped our world. Students can explore and express their own perspectives, build on each other's thinking and learn to recognise their own perceptions, ideas and thought processes.

What will students learn about?
Opportunities will be provided to research, analyse, argue and evaluate a range of topics. Examples include:

- ancient philosophers (Socrates, Aristotle and Plato) and their influence on education, ethics, citizenship and other disciplines
- personality styles and learning styles
- philosophy and its place in modern day issues and long standing debates (e.g. nature vs nurture)
- contemporary individuals of influence and current affairs issues
- future scenario writing.

Alongside the exploration of content will be an explicit focus on learning about *how* we learn, including the 'anatomy' of:

- communication
- collaboration
- problem solving
- critical thinking routines
- learning processes
- study organisation.

Students will have opportunities to co-design assessment and learning processes and engage in learning modes such as collaboration, small and whole group discussion, real world applications, feedback, reflection and guided, explicit and independent learning.

What will students will learn to do?
Students will learn to think reflectively, critically and creatively - the skills universally recognised as the key to success at school, university and the workplace.
Students will learn:

- *how* to think, not *what* to think, through systematic and critical thought strategies
- how to relate effectively with others and improve oral and written communication skills for the better understanding of their ideas
- how to plan, manage, monitor, reflect on and evaluate their learning
- how to analyse, evaluate and present arguments in a logical, reasoned, engaging and well-structured way
- how to research effectively and cite resources.

MOOCS – MASSIVE OPEN ONLINE COURSES

What are MOOCs?

MOOCs – or **massive open online courses** are online courses aimed at unlimited participation and open access via the web. MOOCs engage students in traditional course materials such as filmed lectures, readings and problem sets as well as provide interactive courses with user forums to support community interactions among students and professors as well as immediate feedback to quick quizzes and assignments.

Course Description

Autonomy. Versatility. Flexibility. This elective represents a unique opportunity for our gifted and high potential students to tailor their learning and follow whatever subjects and interests they may have, at a university level.

The MOOCs elective allows students to take control. Students are able to choose from any online course available from quality universities from across the world and complete them during their timetabled MOOCs elective lessons, under the guidance of a teacher. The teacher will be the coordinator who will offer advice and support and track student progress and record their results, but it is the students who are in charge of their learning.

Students can choose subjects as diverse as: Chemistry, How the Solar System Works, The World of Physics, The Greatest Unsolved Mysteries of the Universe, Tutor England, Shakespeare's Tragedies, Python Programming, Synapses Neurons and the Brain, Java Programming For Beginners, Questioning Everything, Medieval China, The World of Wine, Future Cities, Data Science Orientation, Empire: The Controversies of British Imperialism, Spanish for Beginners: People and Places, Maths Puzzles: Cryptarithms, Symbolologies and Secret Codes, IoT Networks and Protocols, Global Health Governance, Genetic Counselling, Governing Religions: European Challenges and Asian Approaches, to name just a few.

Universities offering MOOCourses include:

Harvard, University of Kentucky, University of Virginia, Australian National University, Caltech, ETZ Zurich, University of Adelaide, Kyoto University, University of California, Stanford, Yonsei University, UC Berkley, Harvey Mudd College, University of Copenhagen, Nanyang, Bux, Technological University, University of Arlington, Georgia Tech, University of Rochester, Cave of Programming, University of Edinburgh, Microsoft, University of Michigan, WelleseyX, Hebrew University, European University Institute, Saint George's University of London, EIT InnoEnergy, Anglia Ruskin University, UNESCO, Curtin University, University of Southampton, The British Society for Antimicrobial Chemotherapy, University of Exeter, Duke University, University of Illinois, John Hopkins University, Cambridge University, Oxford University, Princeton University and many more**.**

Cost: While most courses are free, students will need to pay fees for individual courses that have a cost.

HISTORY FACULTY

HISTORY – ELECTIVE (World History)

Course Description
History develops an interest in and enjoyment of exploring the past. It gives students a broad understanding of issues, events and people who have shaped today's world. This course covers study of past societies, the nature of significant issues and the impact of significant individuals in the modern world.

Topics

History Elective A	History Elective B
Ancient and Medieval Societies • Forensic Archaeology: Human Remains	**Early Modern Societies** • Imperialism • The Ottoman Empire
Constructing History • Der el Medina	**Thematic Study: Modern Conflict** • United Nations • MUNA
Personality Study • Cleopatra	**Modern Societies** • Holocaust • Research recent genocides
Thematic Study: Buildings in the Ancient World • The Great Pyramids	**Constructing History:** • Heroes or • Crises in the 20th Century

BIG HISTORY

Course Description

Big History is an innovative, interdisciplinary and cross-curricular course that weaves together elements of traditional History, Science and Geography with 21st century skills learning and technology skills, to look at the history of humankind from the Big Bang to Silicon Valley.
The high flexibility of the course and its easily customised content allows it to be delivered to students at different levels and there is a strong focus on multiple learning styles.

What will students learn about?
The course focuses on key threshold moments in human development, including the big bang theory, stars and elements, the solar system, life on Earth, early humans and civilisation, expansion and acceleration and the future.

In each unit students will be able to access relevant 21st century learning materials with plenty of access to online learning resources to allow them to follow their interests with project based and extension learning. Basically,13.8 billion years in one course.

What will students learn to do?
Students will develop their critical thinking, understand complex concepts and events, be able to tie together big ideas, and build informed arguments – all skills needed to fully embrace future 21st century studies. When they finish the course they will have a better understanding of how we got here, where we're going, and how we fit in.

JEWISH STUDIES

Course Description
Students are often intrigued by the Holocaust and consider how it was humanly possible for something like this to occur. GAT students in particular often have a strong sense of social justice. This Elective provides student with an opportunity to respond to a real academic concern plaguing Historians – how can we ensure the Holocaust never happens again when the survivors are gone and can no longer tell their story?

Through an exploration of pre-War Jewish life, the rise of antisemitism, the Holocaust and a return to life through art and literature students will gain insights into this period of history. There will be opportunities to meet with Holocaust survivors and students will explore the issue of the fact we will soon have no living survivors to tell their stories. Students will explore the various ways victim testimony is recorded and the impact of the different mediums and production elements. This will allow for students to consider the importance of commemoration in ensuring future atrocities do not occur against any religious, cultural or ethnic group.

Starting with the Holocaust as a springboard, students will also be able to delve into areas of personal interest as there have been atrocities committed globally before and since the Holocaust. (These other atrocities may include The Armenian Genocide, The Assyrian Genocide and The Rwandan Genocide). The course will culminate in students producing a commemorative museum display in a medium of their own choosing. There will be an opportunity to share these displays with the Sydney Jewish Museum which also has a human rights exhibition that goes beyond the Holocaust.

What will students learn about?
- Contextualising the Holocaust - e.g. Armenian Genocide was not condemned and emboldened Hitler
- Pre-War Jewish Life in Europe
- Rise of antisemitism
- Non-Jewish Holocaust Victims
- Holocaust Victims outside of Europe
- The Aboriginal connection to the Holocaust – William Cooper was an Aboriginal activist who supported Jewish immigration to Australia
- The idea of “choiceless choices”
- The Holocaust (through personal accounts such as diaries and survivor testimony)
- Return to Life
- The importance of commemoration
- The importance of being an “Upstander”
- Selecting appropriate literature about the Holocaust and debates about controversial texts such as “The Boy in the Striped Pyjamas”
- Current acts of antisemitism
- Contemporary genocides e.g. Kurds and Yazidis
- These aspects will be taught using a mix of traditional historical sources along with literature and art.

What will students learn to do?
- think critically and assess a range of different historical sources, literary and art works
- critically assess the appropriateness of texts in the commemoration of the Holocaust and explain why some texts may be inappropriate and/or be seen as culturally insensitive
- research methods
- develop their writing skills
- develop empathy for others
- identify acts of antisemitism and racism
- develop a method of commemoration for the Holocaust and other atrocities
- communicate with others
- conduct real life academic Project Based Learning and present these solutions to academics in the field of Holocaust History.

INTERNATIONAL STUDIES

Course Description
International studies is an inter-disciplinary course that provides a unique conceptual framework for the study of culture and the promotion of intercultural understanding. Through education, travel, work and trade, students increasingly understand how the study of culture requires knowledge to inform values and develop individual and community participation, action and commitment to be a global citizen.

Students gain knowledge of different cultural practices, values, beliefs and heritages to form a broader world-view. They gain the skills to recognise fact, detect bias and challenge stereotypes by exploring cultural difference and interconnectedness. This enables them to understand and value inclusion, and to respect the rights of others. Students learn to conceptualise and explore interrelationships and empathise with others at a local, national, regional and global level.

Topics

International Studies A	International B
Core – Understanding Culture and Diversity Students study the concept of culture and its many characteristics, and examples of cultural diversity in the contemporary world. **Global Interest Project:** Students will research one contemporary issue, event or scenario on a local, national, regional or global scale that is culturally significant, for example: • deforestation • slavery • child brides • animal rights **Culture and Food** Students explore how culture is created and expressed through food. **Culture and Beliefs** Students study religions and beliefs and the ways in which these interact with, and influence, cultures.	**Culture and the Media** Students will explore the ways in which individuals and groups' religious, political or human rights' views are represented through the media. **Culture in Film and Literature** Students investigate the representation of culture in film and literature through a case study. **Culture Science, Technology and Change** Students explore the way particular scientific and technological developments affect culture and vice versa. Students examine how historical and contemporary scientific and technological developments are spread, and their impact on culture. **Culture and Gender or Sport** Students study connections between culture and the roles of men and women, illustrating gender differences in how culture is expressed and the impact of these differences on societies. Or Students study how cultural differences express themselves in sport.

LANGUAGES OTHER THAN ENGLISH (L.O.T.E.)

Course Description
Enjoyment: Meeting and conversing with native speakers, playing language games, acting out role plays, undertaking cultural craft activities, participating in school trips abroad, cooking and visiting restaurants, hosting exchange students, writing to foreign pen pals.

Challenge: Evidence shows that undertaking a long-term study of a Language has a very positive impact on learning in general, due to the need for hypothesising, problem solving and divergent thinking.

Achievement: The skills gained through the study of Languages are tangible and enhance the self-esteem of the learners. These skills are often pre-requisites for jobs in fields ranging from tourism to marketing, to the diplomatic corps. Traditionally, a knowledge of another language was regarded as one of the attributes of an "educated" person. Given the globalisation of Australia's economy, it is also an attribute of a successful one.

What will students learn about?
Students will develop the knowledge, understanding and skills necessary for effective interaction in a language. They will explore the nature of languages as systems by making comparisons between English and the chosen language. Students will also develop intercultural understandings by reflecting on similarities and differences between their own and the target culture.

What will students learn to do?
Students will develop the skills to communicate in another language. They will listen and respond to spoken language. They will learn to read and respond to written texts in the language they are learning. Students will establish and maintain communication in familiar situations using the language.

Students will explore the diverse ways in which meaning is conveyed by comparing and contrasting features of the language. They develop a capacity to interact with people, their culture and their language.

Language Options for 2020:
French
German
Japanese
Chinese

Cost: Student workbooks of $45 and Language Perfect registration of $40.

PERSONAL DEVELOPMENT / HEALTH / PHYSICAL EDUCATION FACULTY

PHYSICAL ACTIVITY & SPORTS STUDIES - PASS

Course Description
The Physical Activity and Sports Studies (PASS) Years 7–10 Syllabus aims to enhance students' capacity to participate effectively in physical activity and sport, leading to improved quality of life for themselves and others. Students engage in a wide range of activities in order to develop key understandings about how and why we move and how to enhance the quality of movement.

What will students learn about?
The course will include modules which are selected from each of the following three areas of study*:*

Foundations of Physical Activity

- Physical fitness
- Physical activity for health
- Fundamentals of movement skill development
- Participation with safety
- Nutrition and physical activity
- Body systems and energy for physical activity

Physical Activity and Sport in Society

- Lifestyle, leisure and recreation
- Opportunities and pathways in physical activity
- Physical activity and sport for specific groups
- Australia's sporting identity
- Issues in physical activity sport

Enhancing Participation and Performance

- Technology, participation and performance
- Enhancing performance – strategies and techniques
- Event management
- Coaching
- Promoting active lifestyles

What will students learn to do?
Throughout the course students will develop skills that enhance their participation in and enjoyment of physical activity. These include:

- working collaboratively with others
- displaying management and planning skills to achieve personal and group goals
- performing movement skills with increasing proficiency
- analysing and appraising information, opinions and observations to inform physical activity and sport decisions.

Cost: $20

SOCIAL SCIENCES FACULTY

COMMERCE

Course Description
Commerce enables young people to develop the knowledge, understanding, skills and values that form the foundation on which they can make sound decisions about consumer, financial, legal, business and employment issues. It develops in students the ability to research information, apply problem-solving strategies and evaluate options in order to make informed and responsible decisions as individuals and as part of the community.

What will students learn about?
All students study *Consumer Choice* and *Personal Finance*. In these topics they learn about making responsible spending, saving, borrowing and investment decisions.

Students may also study *Legal and Employment Issues*, in which they will develop an understanding of their legal rights and responsibilities and how laws affect individuals and regulate society. They also learn about commercial and legal aspects relating to employment issues, and their rights and responsibilities at work.

While the new NESA syllabus has not been released as yet, students may also study optional topics selected from: Investing; Promoting and Selling; e-Commerce; Global Links; Towards Independence; Political Involvement; Travel; Law in Action; Our Economy; Community Participation; Running a Business; and a School-developed option.

What will students learn to do?
Student learning in Commerce will promote critical thinking and the opportunity to participate in the community. Students learn to identify, research and evaluate options when making decisions on how to solve consumer problems and issues that confront consumers. They will develop research and communication skills, including the use of ICT, that build on the skills they have developed in their mandatory courses. They will also develop skills in personal financial management and advocacy for rights and responsibilities in the workplace.

Please note: These topics may change once the new NESA Commerce syllabus in released

PEOPLE Vs PLANET

Course Description

People vs Planet emphasises the physical, social, cultural, economic and political influences on people, places and environments, from local to global scales. It also emphasises the important interrelationships between people and environments through the investigation of contemporary geographical issues and their management. The wellbeing of societies and environments depends on the quality of interactions between people and the natural world.

The study of People vs Planet enables students to become active, responsible and informed citizens able to evaluate the opinions of others and express their own ideas and arguments. This forms a basis for active participation in community life, a commitment to sustainability, the creation of a just society, and the promotion of intercultural understanding and lifelong learning.

What will students learn about?

- Disasters: Students will examine natural climatic phenomena, how and why they occur, and how people respond to these natural disasters. Students will also examine various people-induced disasters throughout the world, such as the Chernobyl Disaster and terrorism. The topic will culminate in students developing a plan to survive either a zombie attack or a flood in Sydney.
- American Road Trip: Students will explore the landscapes and landforms across an American transect. Starting in Los Angeles and finishing in New York, students will visit sites such as Yosemite National Park, the Grand Canyon and the Great Lakes, and uncover how these landscapes have come to be, their significance, and how they can be protected. Along the way, students will examine the changing demographics across the country, and how these worldviews influence the treatment of the environment. Buckle up!
- Just Keep Swimming: Students will investigate the topic of oceanography, focusing on the features and importance of the world's oceans, including a comprehensive analysis of the economic value of ocean resources. Students will examine *Finding Nemo* for its geographical merit. Students will examine international treaties that deal with ocean resources, develop an environmentally sustainable cruising company, and create satirical advertising campaigns for tourism in the ocean.
- World in Crisis – Politics, Propaganda and Problems: This unit examines significant world issues and human responses to these issues. These include the overconsumption of oil and other non-renewable resources, the implications of population growth, a future without jobs, human rights and the status of women. Students learn to make increasingly informed judgements about these issues, utilising data, GIS, political cartoons, speeches and videos to critically assess the impacts of these issues on our lives.
- Fail to Plan, Plan to Fail: In this unit, students will explore key concepts in town planning, where the provision of services must be equitable and sustainable for a proposed new town in Sydney. Students will test their theories by building a town in the game *Sim City* to suit the needs of a specific demographic and culture.
- Everybody Needs Good Neighbours: In this unit, students explore the Asia-Pacific region. Proximity doesn't always equate to similarity, and students will discover that the various countries in the region are vastly different physically and culturally. Students will look beyond the paradise facades of some nations in the Asia-Pacific, including Rapanui and Hawai'i, to understand the complex cultural, spiritual and economic battles some places face.

What will students learn to do?

Geographical inquiry in People vs Planet involves students acquiring, processing and communicating geographical information. Through an inquiry approach, involving several individual and collaborative projects, students explain patterns, evaluate consequences and contribute to the management of places and environments in an increasingly complex world. This process enables them to apply inquiry skills including: asking distinctively geographical questions; planning an inquiry and evaluating information; processing, analysing and interpreting that information; reaching conclusions based on evidence and logical reasoning; evaluating and communicating their findings in different modes and media; and reflecting on their inquiry and responding, through action, to what they have learned. Engagement in fieldwork and the use of other tools including mapping and spatial technologies are fundamental to geographical inquiry.

SCIENCE FACULTY

MARINE STUDIES

Course Fee: $45 plus field trip costs

Course Description
Marine Studies will develop a student's capacity to design, produce, evaluate, use and sustainably manage marine and water-related environments. This course provides a scientific educational context linked to our position on the coast and the opportunity for students to develop the necessary knowledge and skills to use and protect the unique marine ecosystem, and at the same time, communicate their appreciation to the community. They will be involved in both practical and theoretical learning through project development, relating to coastal areas and other water-related environments, as well as water-related enterprises and leisure activities.

What will students learn about?
Students learn about:

- marine and aquatic environments, water safety, general first aid and the maintenance of aquatic equipment
- economic sustainability of aquaculture and marine environments
- the ethical and sustainable use, management and protection of marine environments
- a range of industries and organisations that use, manage and regulate the marine environment
- how to research, experiment and communicate in relation to marine and aquaculture activities.

Students will visit and learn about our local estuarine, coastal and ocean ecosystems.

What will students learn to do?
Water-based activities and a focus on practical investigations are an essential part of this course. Practical experiences that emphasise hands-on activities will occupy a substantial amount of course time. There will be several excursions/field trips to marine or estuarine environments and each student will be required to complete their Bronze Medallion **during sport**, which involves swimming 200m continuously and performing CPR. It is strongly suggested that students are able to swim comfortably if selecting this course.

Marine Studies A and B each require the completion of 1 core subject, and 5 option modules. Learning experiences will be dependent on the option modules chosen by the course coordinator based on class interest. There are 48 diverse modules to choose from, including The Oceans, Coastal Management, Shipwrecks and Salvage, Tides and Currents, Marine Mammals, Dangerous Marine Creatures, Pests and Diseases of Aquatic Organisms, Marine and Civil Engineering.

Cost: $45

TECHNOLOGY & APPLIED STUDIES FACULTY

GRAPHICS DESIGN

Course Description
The study of Graphics Design develops an understanding of the significance of graphical design and communication as a universal language and the techniques and technologies used to convey ideas and information. Students will learn how to produce graphical presentations that communicate information using a variety of techniques and media. Students will learn to produce a wide range of images, pictures and drawings and media using industry standard practices. They will gain an understanding of graphics standards, conventions and procedures used in manual and computer-based drafting and design (CAD). Students will model their designs using the laser cutter and 3D printers. This is a project based learning course where concepts are integrated in the design and development of practical activities or projects.
To study Graphics Technology B students must have successfully completed Graphics Technology A.

What will students learn about?

Graphics Technology A may include:

- An Introduction to drawing & sketching
- Pictorial & Orthogonal Drawing
- Product Drawing and Rendering
- Logos and symbols
- CAD - An introduction
- Perspective Drawing
- Product Modelling - An introduction

Graphics Technology B may include:

- Computer-Aided Design (CAD) modelling Laser cutting and 3D printing
- Computer Animation
- Graphic Design and Communication
- Landscape Drawing
- Product modelling and Technical Illustration
- Student Negotiated Project.

What will students learn to do?
Students would develop essential design-thinking skills of observing, empathising, team building, communicating, and analysing in order to imagine and create innovative solutions. The major emphasis of the course is on students actively planning, developing and producing quality graphical presentations using manual and computer based technologies.
They will also develop an understanding of the use of graphics in industrial, commercial and domestic applications. The course is designed for students who consider careers in Architecture, Product Design, Graphic Design and Furniture Design.

Cost: $60

INDUSTRIAL TECHNOLOGY – ENGINEERING

Course Description
Students will be actively involved in the planning, development and construction of practical projects applying engineering principles. Students will apply engineering theory through a range of practical experiences that occupy the majority of course time. This course has a significant practical focus covered through the construction of projects using a range of materials, tools and engineering processes. These projects are completed individually or in groups and are designed to challenge the enquiring mind.

The major emphasis of Industrial Technology – Engineering is on planning and constructing projects, learning to select and use materials in their correct application with regard to their properties. They will learn to competently & safely use equipment, tools and machinery to construct projects. Students will learn to communicate design concepts and ideas.
This is a project based learning course where concepts are integrated in the design and development of practical activities or projects.

What will students learn about?

IT Engineering A will include:

- Materials, tools, and engineering principles
- Design and communication
- Engineering computer assisted drawing
- 3D modelling and Printing & laser cutting
- Small mini projects in timber, metal, plastics and electronics
- Engineering structures - design, build, test and analyse a small building structure
- Medieval siege machine – Trebuchet

IT Engineering B will include:

- Materials, tools, and engineering principles
- Design and communication
- Engineering computer assisted drawing
- Solar car challenge
- F1 in Schools competition
- Rocket design using recycled materials
- Control systems and Robotics – automated system development
- Alternative energy and electronics

Please note to study IT Engineering B students must complete IT Engineering A.

What will students learn to do?
Students will learn about engineering materials and their application, and will study a range of engineering equipment, tool and machines used in domestic and industrial applications. Students will also learn about principles & processes used in disciplines of Engineering such as: civil, mechanical, electronic, control and, alternative and sustainable energy generation. They will also learn about design and communication and the impact of engineering on society and the environment.

Cost: $60

FOOD TECHNOLOGY

Course Description
Students will develop a broad knowledge and understanding of food properties, processing, preparation and their interrelationship, nutritional considerations and consumption patterns.

Students will also learn the importance of hygiene and safe working practices and legislation in the production of food. Food-specific skills will be applied in a range of contexts enabling Students to produce quality food products. An opportunity to explore the richness, pleasure and variety food adds to life and how it contributes to both vocational and general life experiences is also provided.

What will students learn about?
Students will learn about food in a variety of settings, enabling them to evaluate the relationships between food, technology, nutritional status and the quality of life.

Food Technology A will include:

- Food in Australia
- Food selection and health
- Food service, catering and for special occasions
- Food trends

Food Technology B will include:

- Food service, catering and for special occasions
- Food for special needs
- Food equity
- Food product development

What will students learn to do?
The major emphasis is on students exploring food-related issues through a range of practical experiences, allowing them to make informed and appropriate choices with regard to food for enjoyment and good health.

Integral to this course is students developing the ability and confidence to design, produce and evaluate solutions to situations involving food. Students will learn to select and use appropriate ingredients, methods and equipment safely and competently.

There is a contribution to the cost of food stuffs required for practical lessons.

Cost: $80

INTEGRATED COMPUTING

Course Description
Students will develop skills in the use of computing technologies and the opportunity to become developers of digital solutions which might be applied to a range of industrial, commercial, domestic and recreational settings. Students will have the opportunity to apply computational, design and thinking skills to develop computer-based solutions from a strong technological base. A key aspect of the course is students engaging in practical activities and using computing technologies to model and evaluate their solutions.

Students investigate the role of hardware and software in managing, controlling and securing the movement and access of data in networked systems, and are encouraged to responsibly and ethically use computing technologies and will consider issues related to cyber security, digital footprints and the need to manage the sharing of personal information online.

Students learn about the technologies that support network security relating to cyber security. They engage with current and emerging technologies as they develop skills in a wide range of software applications, devices and hardware including computers, microcontrollers and robotic components.

This is a project based learning course where concepts are integrated in the design and development of practical activities or projects.

Integrated Computing replaces the Information Software & Technology IST course and offers a study in computing applications and software development.

What will students learn about?

Integrated Computing A – Applications
will include:

- Connecting people with computers
- Modelling with data
- Building mechatronics and automated systems
- Lego Mindstorms international competition

Integrated Computing B – Software design
will include:

- Coding using an industry standard language
- Designing for user experience and entertainment
- Creating intelligent systems
- Developing software solutions for business and industry

What will students learn to do?
Students will become increasingly confident, creative, productive and discriminating in the development and use of a range of computing technologies in computing and computer-related industries. In addition students will develop an understanding of related work environments while developing skills and understanding that equip them for further education, vocational pathways, and leisure and lifestyle activities.

Students will appreciate how computing technologies are used across a range of enterprises, including agriculture, commerce, community organisations, education, engineering, finance, public relations, human resources, entertainment, media and communication.

Cost: $60

MECHATRONICS & SPACE EXPLORATION

Course Description
Students will learn about the role NASA engineers play in the development of space exploration. You will study Mechatronics which involves the study of mechanical and electrical engineering with a focus on the development of space habitats, space and aircraft design, and autonomous systems that support space exploration. Part of your learning may involve the participation in international aerospace competitions.

This is a project based learning course where in-depth concepts and calculations are integrated in the design and construction of projects. University and industry visits are planned.

What will Students Learn about?
You will explore through project based learning the following areas:

- Basic electronics and circuit design
- An introduction to Mechanical Engineering
- Virtual reality VR systems, VR headsets, and autonomous drones
- The role NASA engineers play in space exploration
- Rocket design and orbit calculations
- Astronomy and the mathematics of space exploration
- Space habitat design including advanced materials analysis
- University and industry visits – JAR Aerospace, UNSW, UTS, USYD

Project competitions may include:

- **4x4 in schools** - Student design and construct an all-terrain vehicle, incorporating remote controlled steering used it to negotiate an 'extreme' 4x4 obstacle course such as Mars landscapes
- **Zero Robotics** - Students test their skills on NASA satellite robots known as SPHERES (Synchronised, Position, Hold, Engage, Reorient Experimental Satellites) aboard the International Space Station. This is associated with the University of Sydney.
- **Australian Space Design** - students respond to an engineering Request For Tender (RFT) and design a futuristic space settlement, planning structural engineering, operations and infrastructure, personnel factors, automation, and business development.

What will students learn to do?
Students will learn about engineering materials and their application, and will study a range of engineering equipment, tool and machines used in domestic and industrial applications. Students will also learn about principles & processes used in disciplines of Engineering such as: mechanical, electronic, control and, space exploration systems.

Cost: $60

ARCHITECTURAL DESIGN

Course Description
Designing and building places and spaces.

For those students with a passion for architecture, interiors, design or interested in becoming a design professional. Students will learn how to create innovative concepts for buildings and interior design projects, explore spatial, structural and material elements and develop an understanding of the interaction between people and spaces.

What will Students Learn about?
The course would include practical activities and projects with students solving problems through drawing, model making and use of computer software and laser cutter.
This is a project based learning course where concepts are integrated in the design and development of practical activities or projects.

Projects may include:

- planning an interior/ playground/ café/ tiny house
- drawing to scale
- interior styling with colour
- specifying finishes and furnishings
- model making
- presentation techniques
- incursion workshops Whitehouse Design/Design Centre Enmore
- excursions to Sydney Design Week, UNSW Faculty of the Built Environment

What will Students Learn to do?
Students would develop essential design-thinking skills of observing, empathising, team building, communicating, and analysing in order to imagine and create innovative solutions. Students would work independently and in teams that mimic professional roles, collaboratively developing design solutions for a real-world scenario with links to further study in Interior Design or Architecture at university.

Cost: $60

INDUSTRIAL TECHNOLOGY - TIMBER

Course Description
Woodworking – Traditional vs Modern
Learn design and construction techniques used by skilled woodworkers past and present! This course will enable all students to achieve practical outcomes which will be both functional and aesthetically pleasing, utilising timber as a sustainable resource in a responsible manner. Student-centred, project based learning opportunities will empower students to take responsibility for their own learning and progression and encourage problem solving and collaboration in the workshop to ensure all projects are completed to a high standard.

What will students learn about?
This is a project based learning course where concepts are integrated in the design and development of practical activities or projects.

Possible Projects include:

- Timber puzzle
- Small furniture items such as side table or stool
- Turned bowl or small platter
- Jewellery/games box with marquetry lid

What will Students Learn to do?
Students will learn traditional joinery and turning techniques to design and construct small timber projects using hand and power tools and machinery such as the wood lathe. Modern design and manufacturing tools such as the laser cutter and CNC router will also be used to produce high quality projects. Students will learn about how trees grow, sustainability of timber as a building material, designing projects for maximum strength and longevity, practical skills and finishing techniques.

Cost: $60

FILM & VIDEO PRODUCTION

Course Description
Students will be trained and equipped to produce a short film. In the process students will develop their creative expression, project management, and skills in film production and editing technologies. By successfully completing this course students will be given authentic insight into the entertainment industry and the career possibilities it offers. Students will also gain relevant and useful skills if pursuing design, film or digital media courses after high school.

What will Students Learn about?
This is a project based learning course where concepts are integrated in the design and development of practical activities or projects.

Course activities and projects include:

- Screen writing, script writing & story boarding
- Sound and video production and editing
- Cinematography
- Digital photography- Photoshop
- Directing a film production
- Film advertising campaign
- Project based Learning – TropFest
- Mini projects – film posters
- Excursions to highly acclaimed Animal Logic

What will Students Learn to do?
There's already a societal and cultural expectation that students are literate in the production of digital media and of, specifically, film. This is currently demonstrated by the many video competition opportunities running for school students across a range of subjects.

Cost: $60

FASHION DESIGN

Course Description
This course offers students the opportunity to explore the relationship between cultural innovation and the impact of historical and contemporary fashion cultures. Students will explore a range of experimental fashion and textile techniques such as pattern making, fashion illustration, dyeing, and embroidery, upcycling, to create both original fashion and costume garments. Students will market their fashion garments digitally in a portfolio and exhibit to the school community.

What will Students Learn about?
This is a project based learning course where concepts are integrated in the design and development of practical activities or projects.

Topics:
- Contemporary textiles technology
- Fashion design hands on
- Sustainable and ethical design
- Fashion Illustration
- Fashion advertising & communication (blogging/fashion shoots)

Projects may include:
- Costume design for film and television
- Designing a sustainable garment from recycled materials
- Excursion to Enmore TAFE, Costume Fashion Show
- Excursions to The Powerhouse Museum, contemporary designer's exhibitions
- Competitions relevant to topic with established criteria and time entry i.e. 'Wool for Schools' competition

What will Students Learn to do?
Students would research the global world of fashion and the impact of social media on contemporary design. Students would investigate ethical and sustainable issues through designing and producing fashion garments. They would study specific design criteria and the cultural and historical influences of design.

Cost: $60

CHILD PSYCHOLOGY AND DEVELOPMENT

Course Description
Students will be given a brief overview of issues related to the development of children and the psychology associated with their development from 0-5 years of age. We will investigate strategies required to foster positive growth and development in young children and how they interact through nurturing, safe and challenging environments.

What will Students Learn about?
The course will cover a wide range of topics that will lead to a greater understanding of child psychology and associated areas. The topics to be studied include the following:

- Growth and Development (including nature vs nurture).
- Play and the developing child
- Socialisation – social cognition, discipline, environmental influences and imitation and reinforcement.
- Children and culture – cultural influences on health and well–being of children
- The diverse needs of children
- Career opportunities and related occupations

We will visit childcare centres and have guest speakers to help reinforce content learnt. This course will involve the development of a case study research project of your choosing that fits in with the child psychology unit of study.

What will Students Learn to do?
This course would be useful for students interested in studying in psychology, law (eg. child and family), social work or various health related areas (eg. medicine, nursing). It would also be useful if you deal with young children through extra- curricular activities such as baby-sitting, coaching a team, etc or even if you are a youth group leader where you require skills and strategies to motivate and encourage young children.

Cost: $40

ACCELERATED INFORMATION & PROCESSES TECHNOLOGY
(Accelerated 2 Unit HSC Course)

Course Description
This is **our accelerated learning HSC course in Information & Processes Technology** studied in Year 9 and 10 which is **designed for gifted and talented Information Technology students to maximise their potential in the HSC**. IPT (Accelerated) is a unique program designed to offer gifted and talented students the opportunity to undertake the Preliminary and HSC courses in Information & Processes Technology (Accelerated) in Stage 5, Years 9 & 10. **This is a HSC course that provides two units towards the HSC** credential in Year 12. Completing this HSC course in Year 10 also gives students the opportunity to select Software Design & Technology in Stage 6, maximising their Information and Communication Technology learning. The course also gives students the opportunity to experience HSC study in year 9 and 10.

The IPT (Accelerated) program leads to the opportunity to study university **Computing Science units through the UNSW COMP1917** in Year 11, that is held at Caringbah high each year, and our talented computing high school students are offered the opportunity to enrol at UNSW and take COMP1917, the highly popular first-year university level course in computing. Students must apply to be considered for selection in the Information & Processes Technology (Accelerated) HSC course. As part of the selection procedure students may be asked to submit a brief application, which will be considered to determine their suitability for this accelerated course. IPT is the study of computer based information systems. It focuses on processes performed by these systems and the information technology that supports those processes. Social, ethical and non-computer procedures are considered, and different types of information system case studies are examined. Through project work, students will create their own information system to solve business problems.

What will students learn about?

Preliminary Course (Year 9)	**HSC Course (Year 10)**
Intro to Information Skills and Systems Tools for Information Processes Developing Information Systems	Project Management Information Systems and Databases Communication Systems **Options:** Decision support systems Multimedia

What will students learn to do?
Through this course, students will gain knowledge and skills of the key concepts of interactive information and systems through the study of current and emerging information technologies. The social and ethical issues associated with the use of information technology and information systems, such as equity and access, privacy, freedom of information and copyright are considered.

Students will gain communication, teamwork and project management skills needed to develop an information systems solution appropriate to users' needs.

NOTE: Students **cannot** select both **Integrated** Computing **A & B** and Information & Processes Technology (Accelerated) as separate electives in Year 9.

Cost: $60

ACCELERATED DESIGN AND TECHNOLOGY

Course Description
Design and Technology (Accelerated) is a unique program designed to offer gifted and talented students the opportunity to undertake a compressed Stage 5 Design course in year 9 and then the Preliminary and HSC courses in Design & Technology (Accelerated) Years 10 and finishing in Year 11. **This is a HSC course that provides two units towards the HSC** credential in Year 12 and is **designed for gifted and talented Design & Technology students to maximise their potential in the HSC**.
Students will learn to create designed solutions for one or more of the technologies contexts based on a critical evaluation of needs or opportunities. They will establish detailed criteria for success, including sustainability considerations, and use these to evaluate their ideas and designed solutions and processes.

What will students learn about?
Through the design of projects students will create and connect design ideas and processes of increasing complexity and justify decisions. Communicating ideas and documenting projects, including marketing techniques for a range of audiences will be integrated into the development of an entrepreneurial idea.

Students will enjoy working independently and collaboratively applying sequenced production and management plans when producing designed solutions, making adjustments to plans when necessary. The course draws on the use of traditional and advanced technologies skilfully and safely to produce high-quality designed solutions suitable for the intended purpose.

Projects may include:

Year 9 Stage 5	**Year 10 Preliminary**	**Year 11 HSC**
Marketing Proposal Creative problem solving project Designing for community Project design Architecture design and model making (CAD/laser cutting) Sustainability solution	Marketing Proposal Creative ideas project Product design - flat pack product (laser cutting) Product mock up design - (3D print/silicone moulding)	Major Design Project – Students design and develop an entrepreneurial concept of their own choice.

What will students learn to do?
Students would develop essential design-thinking skills of observing, empathising, team building, communicating, and analysing in order to imagine and create innovative solutions. Students would work independently and in teams that mimic professional roles, collaboratively developing design.

Cost: $60

ACCELERATED INVESTIGATING SCIENCE

Lab Fee: $15

Course Description

The Stage 6 course is designed to enhance students' understanding of the value of evidence-based investigations and the use of science-based inquiry in their lives. The course complements the work done in Stage 5 Science and Stage 6 Biology, Chemistry and Physics and will provide opportunities for students to develop an understanding of scientific concepts, their current and future uses, and their impacts on science and society. Investigating Science encourages the development of a range of capabilities that enhance a student's ability to participate in all aspects of community life and within a fast-changing technological landscape.

The knowledge, understanding and skills gained from this course are intended to support students' ongoing engagement with science, and to form the foundation for further studies and participation in current and emerging STEM-related post-school activities and industries.

As this is an accelerated HSC course, students must have performed at a high level in Stage 4 Science and must have demonstrated a strong understanding of the Stage 5 skills. Students must possess well developed organisational skills, and have demonstrated a commitment to their own learning.

Note: The Investigating Science Stage 6 course may be studied as a stand-alone course or in combination with any other HSC science course(s) studies in Yr 11 and 12. Students studying Investigating Science may also elect to study Science Extension in Year 12.

What will students learn about?

The course promotes interdisciplinary science, by allowing students to investigate a wide range of STEM (Science, Technology, Engineering and Mathematics) concepts in depth.

Preliminary Course (Year 9) students will:

- develop knowledge and understanding of cause and effect
- develop knowledge and understanding of models, theories and laws.

HSC Course (Year 10) students will:

- develop knowledge and understanding of science and technology
- develop knowledge and understanding of contemporary issues involving science.

Students will examine the relationship between science and technology and apply their knowledge, understanding and skills to scientifically examine a claim. The course concludes with students exploring the ethical, social, economic and political influences on science and scientific research in the modern world.

What will students learn to do?

In this course students and teacher can select content from any scientific discipline to develop skills in Science. These skills lay the foundation for all Stage 6 Science courses. Students will conduct their own scientific investigations and communicating their findings in scientific reports. Practical investigations are an essential part of this course, and in addition, students are provided with 30 hours of course time for depth studies in both Year 9 and Year 10.

Students will:

- make direct observations of a phenomenon
- analyse inconsistencies arising from results of a related investigation
- conduct quantitative and qualitative analysis of data
- conduct secondary-sourced research.

Cost: $15

ACCELERATED MATHEMATICS ADVANCED AND EXTENSION 1

Students will complete the Stage 5 Mathematics course (Year 9 and Year 10 content) in Year 9. Year 9 have six periods of mandatory Mathematics lessons per cycle. This, combined with the Accelerated Mathematics elective (an additional four periods per cycle) will enable two years of content to be covered in one year.

Students will begin the combined Stage 6 Mathematics Advanced and Mathematics Extension course in Year 10, completing the Preliminary course in Year 10 and the HSC course and HSC examination in Year 11.

Course Description:

- The Mathematics Extension 1 Preliminary course includes the Mathematics Advanced Preliminary course. The Mathematics Extension 1 HSC course includes the Mathematics Advanced HSC course

The study of Mathematics Advanced and Extension 1

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

What will students learn?

Mathematics Advanced:

Preliminary	HSC
Topic: Functions Working with Functions **Topic: Trigonometric Functions** Trigonometry and Measure of Angles Trigonometric Functions and Identities **Topic: Calculus** Introduction to Differentiation **Topic: Exponential & Logarithmic Functions** Logarithms and Exponentials **Topic: Statistical Analysis** Probability, Discrete Probability Distributions	**Topic: Functions** Graphing Techniques **Topic: Trigonometric Functions** Trigonometric Functions and Graphs **Topic: Calculus** Differential Calculus The Second Derivative Integral Calculus **Topic: Financial Mathematics** Modelling Financial Situations **Topic: Statistical Analysis** Descriptive Statistics Bivariate Data Analysis and Random Variables

Mathematics Extension 1:

Preliminary	HSC
Topic: Functions Further Work with Functions Polynomials **Topic: Trigonometric Functions** Inverse Trigonometric Functions Further Trigonometric **Identities Topic: Calculus** Rates of Change **Topic: Combinatorics** Working with Combinatorics	**Topic: Proof** Proof by Mathematical Induction **Topic: Vectors** Introduction to Vectors **Topic: Trigonometric Functions** Trigonometric Equations **Topic: Calculus** Further Calculus Skills Applications of Calculus **Topic: Statistical Analysis** The Binomial Distribution

Individual Learning Plan

Accelerated Stage 6 Study

Name: _____ Year:_____

Intended Accelerated Course: _____

I undertake to:

- ☐ Manage my time appropriately so that other courses are not neglected
- ☐ Break down project/research work into manageable stages
- ☐ Balance my study and co-curricular activities
- ☐ Work consistently and regularly
- ☐ I agree to attend classes outside normal school hours

I understand that:

- ☐ I am expected to achieve a Band 6/E4 at the HSC in this course
- ☐ If I fail to meet my obligations for acceleration, I may be withdrawn from the course by the Principal.

Why I want to do this course:

_____

_____

_____

_____

_____

My understanding of the aims and benefits of accelerating in the course:

_____

_____

_____

_____

_____

My ATAR Target/Tertiary Study and Intentions:

_____

_____

_____

_____

_____

_____

What I understand are potential issues I might encounter if I accelerate in a subject and how I plan to minimise any issues faced:

_____

_____

_____

_____

_____

_____

What I plan to do with my time if I complete a HSC subject in Yr 10 or 11:

_____

_____

_____

_____

_____

_____

Student declaration:

❒ I agree to undertake the necessary research/project study to excel in the course

❒ I agree to undertake the necessary vacation work to excel in the course

Student: _____

Signed: _____

Parent declaration:

I have discussed the proposed pattern of study in Years 11 and 12 with my child and give my permission for my child to participate in this accelerated Stage 6 subject course.

Parent/Guardian (Name): _____

Signature: _____

Date: _____

Please note, this is an expression of interest to undertake an accelerated subject only. It does not guarantee entry into the course. The Head Teacher of the faculty will review marks, speak to class teachers, interview the student and may require an additional entrance assessment before permission to accelerate is granted.