

Year 9 and Semester One Year 10



Subject Information Booklet

2022





Table of Contents

Year 9 and Semester One Year 10

Subject Information Booklet

<i>A Word from the Principal</i>	1
<i>Year 9 and Semester One Year 10 Subjects</i>	2
<i>Art</i>	3
<i>Business</i>	4
<i>Creative Design and Technology</i>	5
<i>Dance</i>	6
<i>Design and Graphics</i>	7
<i>Digital Technologies</i>	8
<i>Drama</i>	9
<i>English</i>	10
<i>Food Technology and Design</i>	11
<i>Health and Physical Education</i>	12
<i>Health and Physical Education (Extension)</i>	13
<i>Humanities - Geography/History</i>	14
<i>Industrial Design and Technology</i>	15
<i>Japanese</i>	16
<i>Mathematics</i>	17
<i>Mathematics – Semester 1 Year 10</i>	18
<i>Introduction to Essential Mathematics</i>	19
<i>Introduction to General Mathematics</i>	21
<i>Introduction to Mathematical Methods</i>	23
<i>Introduction to Specialist Mathematics</i>	25
<i>Media</i>	27
<i>Music</i>	28
<i>Science</i>	29

A WORD FROM THE PRINCIPAL

The decision to choose particular subjects is important educationally in that it sets the foundation for further education and also points towards possible careers. It is necessary to consider factors in two general areas:

A. the student;

B. the subject.

A. THE STUDENT

Parents and students should consider the following:

- a) **Past Achievement.** Is the student's past record a good indication of future success? Has the student worked to maximum ability? If the results in Year 8 have not been satisfactory, it may mean the student has not worked, it may mean the student has not liked particular subjects or it may mean the student may not be capable of higher academic results. The staff at the school will be happy to give advice in this area if needed.
- b) **Aptitude.** Does the student have special talents in areas such as art, music, technology?
- c) **Ambition.** What does the student hope to do, to achieve, to become? If there are specific career aspirations it would be worth discussing with the Guidance Officer what subjects would best lead to that career. If there are no specific career goals the best idea is to choose subjects that keep most options open.
- d) **Interests.** Success in a subject is highly correlated with interest in a subject. A look through the Year 8 subjects that the student did best in often indicates those in which they were most interested.

B. THE SUBJECT

- There are five 'key' subjects that are compulsory for all students entering Year 9 i.e. English, Health and Physical Education, Humanities - Geography/History, Mathematics and Science. These subjects will ensure students will be developing the essential skills needed as a foundation for further studies.
- Four electives remain to be chosen, three to be completed in Year 9 and one to be completed in Semester 1, Year 10.
- The information in this booklet will give students and parents a clear idea of content and requirements in each subject available. Where a student has difficulty in deciding between two subjects, and the factors in "A" have been considered, then a detailed look at the assessment and requirements of each subject may sway the decision one way or another. It is important that all the relevant subject descriptions be read thoroughly by both parents and students before any subject choice is made.

I wish students an enjoyable and valuable experience in Year 9 and Year 10.

ROSS ROBERTSON
PRINCIPAL

YEAR 9 AND SEMESTER ONE YEAR 10 SUBJECTS

All Year 9 students study seven subjects, as well as Tuesday afternoon sport. Year 10 Semester 1 students study six subjects as well as Wednesday afternoon sport.

Year 8 students select four electives, three will be completed in Year 9 and one in Semester 1, Year 10. Also in Year 10, students can select their level of English and Maths.

The five compulsory subjects are:	English Health and Physical Education Humanities - Geography/History Mathematics Science
The elective subjects available in 2022 are:	Art Business Creative Design and Technology Dance Design and Graphics Digital Technologies Drama Food Technology and Design Health and Physical Education (Extension) Industrial Design and Technology Japanese Media Music Specialist Maths

ART

COURSE OUTLINE

Art plays a role in the development of the individual. It nurtures critical thinking skills, complex problem solving and the ability to analyse and interpret the work of self and others. Students will experience the following throughout their course of study:

- photography
- drawing
- painting
- printmaking
- sculpture
- study of artists and their respective works within a cultural, contemporary, formal and personal context
- computer manipulations.

PREREQUISITES

Study of Art in Year 8 (and 9) is desirable, but not mandatory.

ASSESSMENT

Each unit will include:

1. Practical body of work for each unit of work undertaken
2. Written assignment

REQUIREMENTS

- 1 x 2B pencil
- 1 x soft eraser
- 1 x A4 Visual Art diary
- 1 x USB

Students will be asked to purchase specific equipment depending on the unit's focus such as sculptural materials or a canvas as required.

BUSINESS

COURSE OUTLINE

Business provides students with a wide variety of opportunities enabling a competitive advantage in business and entrepreneurship across all aspects of business, including business management, legal and accounting in many types of industries, both locally and internationally.

It is critical that students are equipped with the understanding, skills and knowledge that will empower them in the face of real-world challenges. Business will inspire students to shape their business acumen and entrepreneurial skills that contribute to the development of Australian and global societies. Students will be exposed to a number of real-world experiences through the courses below. A number of excursions are required for the courses and students should be aware that these will form a part of assessment.

*Whether a student selects Business once or multiple times over years 9 and 10 they will experience a different and engaging course of study. **Units of study will be a mixture of the follow topics.** This is dependent on the number of students and classes.*

Possible Units of Study:

Business – Marketing Madness

Topics of study

- Supply, Demand, Product Development, Price, Place and Promotion
- Interpretation of business logos and slogans
- Analysis of marketing strategies and Advertising
- Product differentiation
- E-Commerce

Assessment: Combination exam and research assignment

Excursions: Coles/IKEA - Marketing product placement
Australia Zoo - Product differentiation

Business – Venturing into Business

Topics of study

- Innovation vs invention of your own product
- Planning and conducting the annual Market Day
- Concept of business, types of business, records management
- Dynamic efficiencies, risk and rewards

Assessment: Analytical reflection exam and project sales pitch

Excursion: Eat St Markets

Business – Business Finance

Topics of study

- Death and taxes – These are the only two certainties in life
- Having a job and earning money – right and entitlements
- Economic responses to a crisis
- Party politics and back stabbing
- Managing financial risks and rewards - How to make money!
- Buyer Beware - scams

Assessment: Combination exam and assignment

Guest speakers: Politician, Government representative

PREREQUISITES: nil

REQUIREMENTS

- A4 exercise book
- General stationery items

CREATIVE DESIGN AND TECHNOLOGY

COURSE OUTLINE

Creative Design and Technology is designed to develop an appreciation and positive attitude towards some of the many interesting skills and finishes students may use when building a functional, yet decorative item. This course provides students with an insight into the experiences and materials they may encounter in interior design.

This course is suited to those students who enjoy 'soft furnishings' and is a popular subject providing greater access to our workshops for students who enjoy an alternative to the traditional IDT subject. Students may wish to participate for the sole purpose of improving their practical skills to use later in life. Examples of units covered in the elective course may include:

Creative Design and Technology – Coasters/Cutting Board and Trivet

COURSE OUTLINE: Units covered may include the following:

Unit 1A - Drink Tile Coasters

Unit 1B - Cutting Board and Trivet for the kitchen

Creative Design and Technology – Shadow Box/LED Clock

COURSE OUTLINE: Units covered may include the following:

Unit 2A - Shadow Box

Unit 2B - LED Clock

Creative Design and Technology – Jewellery/Jewellery Box

COURSE OUTLINE: Units covered may include the following:

Unit 3A - Personal Jewellery

Unit 3B - Jewellery Box

Creative Design and Technology – Picture Frames/Pinboard

COURSE OUTLINE: Units covered may include the following:

Unit 4A - Mirrored Picture Frames

Unit 4B - Pinboard - Fabric and ribbon display

PREREQUISITES

Students must be prepared to participate in all areas of the course – both practical and theoretical elements. Students will be required to provide some materials for each project. A positive and determined attitude is the best prerequisite.

ASSESSMENT

Assessment in Creative Design and Technology will consist firstly of the completion of the practical construction of the item, then secondly the completion of the accompanying theoretical unit of work for each term.

REQUIREMENTS

- Each student will be required to wear the personal protective equipment. This can be purchased from the uniform shop. PPE consists of safety glasses and an apron. This is compulsory.
- HB pencil with eraser

DANCE

WHY STUDY DANCE?

Dance is a human activity of ancient tradition and an evolving form of expression. Different cultures throughout history have refined and manipulated movement to communicate meaning through the symbol systems of dance. As an aesthetic means of ordering movement into an expressive code, dance involves structuring gesture and motion to capture and convey ideas, images and feelings, and use the human body as the instrument of communication. In this syllabus, the major focus is on dance as art while also promoting an understanding of the social and ritual functions.

PREREQUISITES

An understanding that it is a practical based subject and therefore students must enter the subject with a willingness to perform and communicate with and in front of others.

COURSE CONTENT

The study of Dance is enriched by experiences in making and responding. Through the creative process of making (*Choreography*), students learn how patterns of movement are combined and structured in space with dynamics to create meaning, to express personal or social ideas and to tell stories. The skills of communication, improvisation, personal problem-solving, group decision-making, and planning and organising are fostered in this process.

In making (*Performance*), unique technical and expressive demands of dance are developed. Students develop their personal expressive power to convey meaning through dance to an audience. They are rewarded by a sense of achievement and satisfaction through the physical expression of a creative idea. Students can build self-confidence and physical capabilities through experiencing a variety of dance techniques.

Responding to dance involves understanding how and why dance is made, the techniques used in its design and the stylistic elements that place it in a particular context. The student learns to value their own and others' aesthetic responses to dance.

ASSESSMENT

Assessment techniques may include the following:

- The creation of dance works, section or movement sequences (devised individually and in pairs or groups) which may be a combination of improvised and prepared material, or adapted from an existing dancework.
- The performance of dance works, sections or movement sequences (individually and in pairs or groups) which may be an adapted repertoire, a technique class or a teacher or student-choreographed sequence.
- Written and oral tasks such as critiques and reviews of live and video performances, research assignments and written responses.

REQUIREMENTS

- Dance apparel – black tights and black singlet for girls. Black shorts and black singlet for boys.
- An exercise book or A4 lecture pad for notes.
- Students are expected to rehearse both in and out of lesson time and to provide any extra basic costumes and props that are not available through the department.
- At times, students may be required to attend performances and workshops at an extra cost.
- Class work will be performed at school events e.g. Parade, PAN, Dance Night (Term 4) etc.

DESIGN AND GRAPHICS

The Design and Graphics course is designed to develop in students an appreciation and positive attitude towards the design process. It also encompasses an appreciation of some of the many areas in which the design process is used to solve a design problem. Students use a variety of presentational technologies. These include: annotated hand drawings, computer graphics programs, model construction, laser cutting and 3D Printing.

Participants are required to consider the impact that their design solutions have on the environment. The course is designed for those who have an interest in solving design problems. This course is of benefit to students wishing to pursue careers or interests in architecture, engineering, industrial design, interior design, graphic design or any of the trades. Examples of units covered in the elective course may include:

Design and Graphics: Architecture

COURSE OUTLINE: Units covered may include the following:

- Revit House Model using CAD (Revit)
- Re-design of a post war home using CAD (Revit)
- Design a technology lab extension on an existing building using CAD (Revit)

Design and Graphics: Product Design

COURSE OUTLINE: Units covered may include the following:

- Toy Design using CAD (Inventor)
- Packaging design using CAD (Inventor)

Design and Graphics: Digital Manufacturing

COURSE OUTLINE: Units covered may include the following:

- Modelling and making Fidget Spinner using CAD (Inventor) and 3D Printer
- Modelling and making Miniature Model Furniture using CAD (Inventor), 3D Printer

Design and Graphics: Reverse Engineering/Redesign

COURSE OUTLINE: Units covered may include the following:

- Reverse engineering and redesign of Pencil Sharpener using the CAD (Inventor)
- Reverse engineering and redesign of Jockey Wheel using CAD (Inventor)

ASSESSMENT

Assessment will consist of the completion of the designated Design Folios for each project. This requires the student to use the relevant subject technologies.

PREREQUISITES for all Design and Graphics Subjects

Students must be prepared to participate in all areas of the course - this includes hand drawing and design, computer graphics and related technologies, which include laser cutting and 3D printing on occasions. A positive and determined attitude is the best prerequisite.

REQUIREMENTS for all Design and Graphics subjects

- A4 notebook
- HB pencil with eraser
- Ruler
- School laptop device for homework

DIGITAL TECHNOLOGIES

Digital Technologies is a subject designed to give students an opportunity to use computer technology in practical, engaging and, most of all, enjoyable ways. Units are focused on providing students with tangible products that they can design and develop. In Digital Technologies we focus on using Industry Standard software (such as Unity and Unreal Engine for Game Design and the Adobe Creative Suite Web Applications) to create products of increasing complexity. In Year 9, we explore the future of technology through topics such as Robotics, Game Design, Aviation, Virtual Reality, Smart phone applications, Web Design and Electronics.

Below is the list of topics that are available in Digital Technologies:

Digital Technologies: Smartphone App Design

- Web based smartphone applications
- Mobile applications

Digital Technologies: Virtual Reality and Web Design

- Create VR (Virtual Reality) Experience
- Web Design

Digital Technologies: 3D Game Development

- 3D gaming using Unity
- 3D gaming using Unreal Engine

Digital Technologies: Artificial Intelligence – Robotics

- Development of Competitive Robots
- Advanced Robotics

Digital Technologies: Aviation – Drones

- Learn to code and fly an autonomous drone
- 3D mapping using drones

Digital Technologies: Coding and Electronics

- Arduino Electronic micro controllers – build your own prototype project
- Advanced coding i.e. Python; C#; C++ etc

ASSESSMENT: Assessment will be largely practical projects that are completed during class time and focus on the particular computer software program and emerging technology being studied for that unit.

PREREQUISITES for all Digital Technology Subjects

Students entering Digital Technologies will be given every chance to perform at his or her best in the use of the various packages. No prior knowledge is needed but it could be advantageous.

REQUIREMENTS for all Digital Technology subjects

A positive attitude centred on engaging in all tasks presented, focussing on meeting and overcoming all challenges. All students should have a USB for backup purposes.

DRAMA

WHY STUDY DRAMA?

Drama is one of the oldest art forms known. It is the making and communicating of meaning involving performers and audiences, engaging people in a suspension of disbelief in order for them to enter a fictional world. Drama provides a medium for exploration, social criticism, celebrations and entertainment and is explored through the dimensions of *making and responding*.

Students who study Drama are actively participating in an experimental mode of learning that blends intellectual and emotional experience. Drama offers students a unique means of enquiry that contributes to the knowing and understanding of themselves and the world.

PREREQUISITES

An understanding that it is a practical based subject and therefore students must enter the subject with a willingness to perform and communicate with and in front of others.

COURSE OUTLINE

This course is designed to:

- (a) provide opportunities to assist each student to achieve his/her unique potential through drama;
- (b) develop learners' knowledge and understanding of drama and the skills necessary to manage the dramatic form;
- (c) foster confidences and self-discipline in social interaction;
- (d) develop skills in interpersonal relationships and teamwork.

Current units of study in the Drama course include acting technique, characterisation, improvisation, documentary drama, collage drama, directing, design, filmic languages, scripted drama and playwriting. Students can explore styles including, but not limited to Comedy, Australian Drama, Gothic Theatre, Physical Theatre, Shakespeare, Contemporary Theatre and Political Theatre.

ASSESSMENT

Assessment includes a variety of instruments; improvisations, polished student-devised or scripted drama, written analysis, and practical demonstrations.

Practical assessment will occur in small groups, pairs and solo modes.

REQUIREMENTS

- 1 x 48 page exercise book
- Students are expected to rehearse both in and out of lesson time and to provide any extra basic costumes and props
- At times, students may be required to attend outside performances or workshops and an extra cost will apply
- Additional out-of-hours rehearsals may occur in preparation for performance evenings.

ENGLISH

COURSE OUTLINE

Students undertake a program based on competence in language and communication skills. Correct use of grammar, punctuation and spelling is a priority. An appreciation of literature and media in its varied forms – novels, non-fiction, poetry, drama and film – is also highlighted. Students will be taught to compose texts and to speak in a variety of genres for specific purposes.

The aim is for students to:

- expand capabilities in reading, writing, listening and speaking including accuracy, fluency and reflection;
- participate as productive and confident members of their community;
- lay foundations for employment, citizenship and intercultural understanding in a changing world;
- become critical and creative thinkers;
- enjoy a range of recreational activities including literature, drama and media.

PREREQUISITES

Nil - essential subject

ASSESSMENT

Assessment is continuous with a balance of tests and assignments including written and spoken tasks for a specified audience and purpose. Results are recorded on a semester profile as all assessment items count towards semester results. All assessment must be completed by the due date unless arrangements are made with the Head of Department. Please check Student Planner for Exam and Assignment Policy.

REQUIREMENTS

- 2 x 64 page A4 exercise books
- A4 plastic sleeves
- General stationery items
- Dictionary and thesaurus for home reference

FOOD TECHNOLOGY AND DESIGN

COURSE OUTLINE

The emphasis of each elective unit in Food Technology and Design is the elements and principles of cookery. Students will experience the world of contemporary food production where they will apply knowledge to practical food situations. The components of units are both practical and theoretical and the students will be required to participate in weekly take home cookery depending upon the theme of the unit. Students will be responsible for bringing their own ingredients to school to complete the set cookery challenges. Examples of units covered in the elective course may include:

Food Technology and Design: Kids in the kitchen

COURSE OUTLINE: Units covered may include the following:

- Knife skills, kitchen management, interpreting and altering recipes, technology in the kitchen
- Cooking with carbohydrates, emphasis on pasta and rice cooking, perfecting sauces

Food Technology and Design: Food to you

COURSE OUTLINE: Units covered may include the following:

- Meal planning for families, development of recipe cards, production of a cookery video
- Production of gourmet gift baskets focusing on food preservation, label design

Food Technology and Design: All about baking

COURSE OUTLINE: Units covered may include the following:

- Pastries, batters and yeast doughs with emphasis on the production and preparing baked goods
- Basic piping techniques

Food Technology and Design: Sew it up

COURSE OUTLINE: Units covered may include the following:

- Textiles design with the emphasis on design and production of items to be used for personal use and items that can be used in the kitchen if selecting a cooking elective.

ASSESSMENT

The students will complete practical design projects that incorporate a combination of practical and theoretical components. Students will be assessed on textile production and continuous cookery, set practical tasks and a written assignment.

PREREQUISITES for all Food Technology and Design subjects

No prior knowledge is needed but it could be advantageous.

REQUIREMENTS for all Food Technology and Design subjects

Students should have a named bag large enough to carry cooked items. Students will be required to supply their own cookery ingredients and a non-stick brownie slice tray and a round spring form pan 25 cm

Students selecting textiles will be given a list of requirements once their project has been selected.

HEALTH AND PHYSICAL EDUCATION

COURSE OUTLINE

Health and Physical Education is a core subject for Year 9.

The **Health and Physical Education Program (HPE)** is designed to develop a positive attitude to one's health, fitness and a lifelong enjoyment of sport. It exposes students to a variety of popular 'Physical Activities' enjoyed in the wider community. The accompanying theory units of work address *broad* 'Health' and 'Personal Development' issues.

Year 9 Health and Physical Education					
Year 9	Theory	Term 1	Term 2	Term 3	Term 4
		Sustainable Health Challenge		Sensationalised Reporting – Equity in Sport	
	Practical	Invasion and Net and Court Games - Cricket, Netball, AFL, Volleyball			

(Note: All Physical Activities are completed on a rotation basis throughout the year.)

PREREQUISITES

Students must be prepared to participate in all areas of the course - both physical and theoretical elements. Students are also expected to demonstrate skills learned in class by participating in intra-school activities as a member of a House.

ASSESSMENT

Assessment in Health and Physical Education will consist of class exams, written assignments and oral/multimodal presentations. In practical areas students are assessed within simple and complex performance environments.

REQUIREMENTS

- Health and Physical Education has a theory component and students will require their laptop, a notebook and writing equipment. Homework and assignments will be set and it is advisable for students to manage their time to complete these tasks.
- Each student will be required to wear the correct PE uniform to practical lessons. This uniform is outlined in the school uniform guide and includes the **school cap** or **bucket hat**.
- Students who are injured/sick or out of uniform **must** provide a note from home explaining the circumstances.
- Fees for outside venues may be incurred.

HEALTH AND PHYSICAL EDUCATION (Extension)

COURSE OUTLINE

Health and Physical Education (Extension) is a physically and academically challenging subject. It is designed to meet the needs of students who have previously displayed potential in physical and theoretical performance in Year 7 and 8 HPE. Students will experience *specific* units aimed at developing improved individual performance and achievement. The subject will serve to further develop each student's learning potential with a view to preparation for Senior Physical Education and a possible career in the Health/Medical Science, Sports Science and Sporting Industries.

The subject's emphasis is on the integration of both physical and theoretical units enabling student's learning to take place *in* and *through* physical activities. The program differs from the Year 8 and 9 core HPE program through its *specialised* physical activities and core subject matter.

The unit overview is as follows:

Year 9 Health and Physical Education (Extension)						Semester 1 Year 10	
Year 9 and 10 (Sem 1)	Theory	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
		Motor Learning	Sociology of Sport	Sports Coaching	Exercise Physiology	Energy Systems	Equity and Access
	Practical	Athletics	Futsal	Golf	Gym Programs	Basketball	AFL

PREREQUISITES

Students must be prepared to participate in all areas of the course - both physical and theoretical elements.

ASSESSMENT

Assessment occurs in both the theory and physical areas. Each unit of work will comprise of a practical and theoretical component. These components are integrated and are of equal value. There will be one piece of theoretical assessment per term. Assessment instruments include written assignments, oral/multimodal presentations, and written exams.

REQUIREMENTS

- HPE Extension has a theory component and students will require their laptop, a notebook and writing equipment. Homework and assignments will be set and it is advisable for students to manage their time to complete these tasks.
- Each student will be required to wear the correct PE uniform to practical lessons. This uniform is outlined in the school uniform guide and includes the **school cap** or **bucket hat**.
- Students who are injured/sick or out of uniform **must** provide a note from home explaining the circumstances.
- Fees for outside venues may be incurred.

HUMANITIES - GEOGRAPHY/HISTORY

GEOGRAPHY

Geography provides students with opportunities for critical and higher order thinking. Students are required to developing an understanding of both simple and complex situations which impact on all of us as citizens. These are looked at, at local, national and global levels. Through the study of Geography, students will come to recognise, interpret and understand how natural processes and human activities shape our world. Geography essentially focus' on examining why things are located where they are and how this then influences human development.

Some of the topics covered are:

- Biomes and food security
- Global connections
- Health and wellbeing
- Migration of people

HISTORY

History is the study of people, events and place over time. A strong emphasis is made in this course in linking events from the past with issues and developments of the present. Following on from Year 7 there is a continuation on building historical skills. These include: use of historical terms and concepts, comprehending, analysing and evaluating primary and secondary sources and synthesising information from a variety of sources and perspectives

Some of the units studied include:

- The Industrial Revolution
- World War 1
- Human Rights and Freedoms

PREREQUISITES

Nil - essential subject.

ASSESSMENT

Assessment for both subjects reflects those which are required in the senior school. The skills for these assessment types are taught and practiced throughout the two years. A wide variety of assessment types are used to cover a variety of learning styles. These can include; in class exams, extended written responses, research pieces, multimodal and non-written responses.

REQUIREMENTS

- A4 exercise book with ring-binder folder and plastic pocket sleeves for holding worksheets and materials.
- General stationery items

INDUSTRIAL DESIGN AND TECHNOLOGY

COURSE OUTLINE

Industrial Design and Technology is designed to develop in students, an appreciation and positive attitude towards some of the many construction methods used to build and finish practical projects. It encourages students to consider the type of techniques that are used to construct ideas and designs from wood, steel and plastic.

There are also a number of projects embedded in the course which teach students the design process. Participants are required to consider the impact that construction methods and material may have on the environment. Students will engage in technologies such as the laser cutter, vacuum former and electronics during the course. The course is designed to provide students with both practical and design skills. Students who are not looking for a future in the 'Trade' aspect of the course, may wish to participate for the sole purpose of improving their practical skills to use later in life. Examples of units covered in the elective course may include:

Industrial design and Technology: Furnishing

COURSE OUTLINE: Units covered may include the following:

Camp Chair
Ottoman

Industrial design and Technology: Electronics

COURSE OUTLINE: Units covered may include the following:

Docking station
Eco LED Lamp

Industrial design and Technology: Engineering

COURSE OUTLINE: Units covered may include the following:

Utility trolley
Junior hacksaw

Industrial design and Technology: Aviation and hydraulics

COURSE OUTLINE: Units covered may include the following:

Sky lap racer
Laser cut hydraulic systems

ASSESSMENT

Assessment will consist of the completion of the designated Design Folios for each project. This requires the student to use the relevant subject technologies.

PREREQUISITES

Students must be prepared to participate in all areas of the course - both practical and theoretical elements. A positive and determined attitude is the best prerequisite.

REQUIREMENTS

- Each student will be required to wear the personal protective equipment which can be purchased from the uniform shop. PPE consists of clear safety glasses and an apron.
- HB pencil with eraser

JAPANESE

Why study a language?

There is more to studying a foreign language than being able to speak it. It is also about:

- Engaging with the global community
- Widening cultural understanding and experiences
- Developing new perspectives and opportunities
- Gaining a competitive edge in the job market
- Being able to travel through parts of the world more easily

How will this subject help you?

Learning an additional language helps you to live and learn as part of our global community. It gives you insights into other cultures, as well as the language and communication skills to interact with members of local and international communities.

The ability to speak an additional language can be essential in areas such as tourism and hospitality, business, international relations and diplomacy, education and communications. This ability also opens up opportunities to study abroad, and to travel and live in parts of the world that would not have been possible without the local language.

What will you study?

Learning a language also involves learning about people and culture. You will study a wide variety of topics drawn from key themes:

- | Year 9 | Year 10 Semester One |
|------------------|----------------------|
| • Housing | • Homestay |
| • Directions | • Advertising |
| • Daily Routines | |
| • Weather | |

How will you learn?

Learning a language requires communicating in meaningful and realistic situations. You will use the skills of listening, reading, speaking and writing in activities such as:

- Listening to radio broadcasts, television programs, webcasts and podcasts
- Viewing videos and films
- Communicating with students in other schools and countries
- Holding debates or participating in discussions
- Reading cartoons, short stories, poems and song lyrics
- Participating in chat rooms/MSN Messenger and forums

How will you be assessed?

Languages are assessed by listening, reading, speaking and writing. You may be assessed, for example, by:

- Answering questions about spoken and written texts in the language
- Engaging in conversations and interviews
- Writing letters, emails, diary entries, stories

Your ability to communicate is what is being assessed. You will need to show that you can understand and convey meaning in the spoken and written language.

How your parent/s or guardian/s can help

Your parent/s or guardian/s can help by showing interest in what you are learning and by providing a supportive home environment and encouragement. They can further assist by:

- Discussing the culture and related current events with you
- Attending cultural events with you

Fostering respect and empathy for people whose first language is not English and whose customs and beliefs are not the same as yours.

REQUIREMENTS

- 1 x 96 page A4 notebook
- 2 x A4 display folders
- Head phones

MATHEMATICS

COURSE OUTLINE

The Year 9 Mathematics course is a single course only. Within the course, provision is made for diversity of experience. The approach is that of a central core of material is studied by all students with extension work available to those students who have a deep understanding of the core. In Year 10, students will select one Mathematics subject from – Introduction to Essential Mathematics, Introduction to General Mathematics and Introduction to Mathematical Methods. Students who choose to study Introduction to Mathematical Methods can choose to study Introduction to Specialist Mathematics as an elective. Students will be able to select one of these subjects based on achievement in Year 9 Mathematics. The courses aim to ensure all students are given the opportunity to develop at their own pace and study the Mathematics needed to support their goals for the future.

The three introductory subjects prepare students for the Senior Mathematics subjects of Essential Mathematics, General Mathematics, Mathematical Methods and Specialist Mathematics. To select Mathematical Methods and Specialist Mathematics in Year 11 and 12, students will be required to achieve a minimum of a C+ standard in Mathematical Methods and to select General Mathematics, students will be required to achieve a minimum of a C+ standard in General Mathematics or Mathematical Methods.

The Year 9 Mathematics courses are organised into three strands:

- Statistics and probability
- Measurement and geometry
- Number and algebra

PREREQUISITES

Nil - essential subject.

ASSESSMENT

The assessment will include written tests, assignments and investigations. The assessment will require students to:

- recall information;
- apply mathematics in familiar situations;
- carry out investigations and analyse the results;
- construct mathematical models in a range of situations;
- use mathematical aids, instruments and concrete materials;
- solve problems which range from routine and well-rehearsed problems through to those that require demonstration of insight and creativity; and
- give coherent explanations of choices made and strategies used in problem solving.

The assessment tasks that accompany each topic will assess two (2) criteria:

- Understanding and fluency– recall, selection and use of mathematical concepts and information to solve problems in familiar and unfamiliar situations.
- Problem solving and reasoning - application of problem solving strategies and completion of mathematical investigations – use of mathematical symbols and language, justification of strategies used, conclusions reached and the reasonableness of results and the analysis of the results of mathematical investigations.

REQUIREMENTS

2 x 240 page A4 exercise books, general stationery items and a **CASIO fx-82AU PLUS II** scientific calculator. (Calculators can be purchased from the school Uniform Shop).

MATHEMATICS – Semester 1 Year 10

INTRODUCTION

In Years 11 and 12 students are able to choose a Mathematics course that is aligned with their future pathway and interests. The mathematics choices available are:

- Essential Mathematics
- General Mathematics
- Mathematical Methods
- Specialist Mathematics

Students **must** choose one of the first three subjects.

Students who study **Mathematical Methods** may elect to study Specialist Mathematics as one of their elective subjects.

In Year 10, students are able to choose to study an introductory course for each of these subjects. Each of these courses will continue to cover the P-10 Australian Curriculum but the emphasis, on each of the topics in the curriculum, has been modified to prepare students for the respective course in Years 11 and 12. For example, the Introduction to Mathematical Methods contains a greater emphasis on algebraic skills. Students will also be exposed to the variety of skills necessary to successfully complete assessment for each of the subjects.

The goal is to better prepare students for their senior studies and also to assist students in making appropriate subject choices for Years 11 and 12.

Students, who intend to study Mathematical Methods in year 11 and 12, must study Introduction to Mathematical Methods in Year 10 and achieve a C+ or better. This is because the introductory course provides intensive study of the prerequisite skills for Mathematical Methods. Students who intend to study Specialist Mathematics in Year 11 and 12 do not have to study the introductory course in year 10 but must have completed the Introduction to Mathematical Methods course and achieved a C+ or better. Completing Introduction to Specialist will provide basic understanding of the topics that will be studied in Year 11.

Students, who intend to study General Methods in year 11 and 12, must study Introduction to General Mathematics in Year 10 and achieve a C+ or better or Introduction to Mathematical Methods and achieve a C. Students who study Introduction to Essential Mathematics in Year 10 must choose Essential Mathematics in year 11 and 12.

Students entering Year 10 must select a mathematics subject from the following list:

- Introduction to Essential Mathematics
- Introduction to General Mathematics
- Introduction to Mathematical Methods

An outline of each of these subjects is given on the next few pages.

INTRODUCTION TO ESSENTIAL MATHEMATICS

RATIONALE

Essential Mathematics is designed for students with a wide range of needs and aspirations. It provides students with access to authentic trade, industry and business environments and community connections. Students will learn within a practical context related to general employment and successful participation in society, drawing on the mathematics used by various professional and industry groups. The benefit of Essential Mathematics goes beyond traditional ideas of numeracy, requiring greater emphasis on estimation, problem solving and reasoning, with the aim of developing thinking citizens who interpret the world mathematically, and use mathematics to make informed predictions and decisions about personal and financial priorities. The major themes of Essential Mathematics are every day, life-related and practical applications of number, geometry, measurement, financial mathematics, probability and statistics.

COURSE OUTLINE

The **Introduction to Essential Mathematics** course is based on the P-10 Australian curriculum and will cover the three strands, Statistics and probability, Measurement and geometry and Number and algebra to ensure students have the foundation skills for the Essential Mathematics course in Years 11 and 12.

ALIGNMENT TO YEAR 11 AND 12

The **Introduction to Essential Mathematics** course is directly aligned to Year 11 and 12 Essential Mathematics through the content and assessment.

ALIGNMENT TO FURTHER QUALIFICATIONS

A sound achievement or better in Essential Mathematics provides students with the Numeracy credit needed for QCE eligibility.

ALIGNMENT TO FUTURE CAREERS

Essential Mathematics provides the numeracy skills necessary for wide variety of careers where a knowledge of mathematics is not essential.

PREREQUISITES

Nil

ASSESSMENT

The assessment for this course will mirror the form and frequency of the summative assessment requirements in Years 11 and 12. The assessment will consist of a problem solving and modelling task, an end of semester test each semester. Problem solving and modelling tasks will require students to demonstrate their skills in mathematical modelling and report writing. The assessment will require students to:

- recall and use facts, rules, procedures definitions
- apply mathematical concepts and techniques to solve problems
- explain mathematical reasoning to justify procedures and decisions
- evaluate the reasonableness of solutions
- communicate effectively using mathematical, statistical and everyday language and convention
- make decisions about choice of technology and use the technology to solve problems.

REQUIREMENTS

- 1 x 256 page A4 exercise book, ruler, pens/pencils, protractor, compass and a calculator.
- The minimum requirement for this course is a scientific calculator e.g. Casio fx-82AU PLUS II or fx-100AU PLUS which can be purchased from the school Uniform Shop.

INTRODUCTION TO GENERAL MATHEMATICS

RATIONALE

General Mathematics is designed for students who want to extend their mathematical skills beyond Year 10 but whose future studies or employment pathways do not require knowledge of calculus, including trades, and further educational training or university courses in the areas such as economics, psychology, business and the arts. The major themes of General Mathematics are life-related and practical applications of number and algebra, geometry and measurement, and probability and statistics, building on the content of the P-10 Australian curriculum.

COURSE OUTLINE

The **Introduction to General Mathematics** course is based on the P-10 Australian curriculum and will cover the three strands, Statistics and probability, Measurement and geometry and Number and algebra to ensure students have the foundation skills for the General Mathematics course in Years 11 and 12.

ALIGNMENT TO YEAR 11 AND 12

The **Introduction to General Mathematics** course is directly aligned to Year 11 and 12 General Mathematics through the content and assessment.

ALIGNMENT TO FURTHER QUALIFICATIONS

General Mathematics is a prerequisite for courses such as Bachelor of Surveying, Bachelor of Building Design, Bachelor of Urban Planning, Bachelor of Aviation, Bachelor of Education, Bachelor of Biomedical Science, Bachelor of Medical Studies, Bachelor of Sport and Exercise Science, Bachelor of Hotel and Tourism Management, Bachelor of Science and Bachelor of Information Technology.

ALIGNMENT TO FUTURE CAREERS

Building or construction manager, site manager, property developer, banking and financial services, pilot, tourism, small business management, international business and commerce, early childhood education, primary and secondary education, industrial designer, designer for medical applications, pharmaceutical and medical technology industries, community nutritionist, sports dietitian, food safety.

PREREQUISITES

Nil

ASSESSMENT

The summative assessment for this course will mirror the form and frequency of the summative assessment requirements in Years 11 and 12.

The assessment will consist of a Problem solving and modelling task in Semester 1, an end of Semester 1 test and an end of Semester 2 test. Problem solving and modelling tasks will require students to demonstrate their skills in mathematical modelling and report writing. The assessment will require students to:

- recall and use facts, rules, procedures definitions
- apply mathematical concepts and techniques to solve problems
- carry out investigations and analyse the results

- construct mathematical models in a range of situations
- explain mathematical reasoning to justify procedures and decisions
- evaluate the reasonableness of solutions
- communicate effectively using mathematical, statistical and everyday language and conventions
- make decisions about choice of technology and use the technology to solve problems.

REQUIREMENTS

- 1 x 256 page A4 exercise book, ruler, pens/pencils, protractor, compass and a calculator.
- The minimum requirement for this course is a scientific calculator e.g. Casio fx-82AU PLUS II or fx-100AU PLUS which can be purchased from the school Uniform Shop.

INTRODUCTION TO MATHEMATICAL METHODS

RATIONALE

Mathematical Methods is designed for students whose future pathways may involve the application of mathematics and statistics in a range of disciplines at the **tertiary level** including natural and physical sciences (especially physics and chemistry), mathematics and science education and health sciences (including human biology, biomedical science, nanoscience and forensics), engineering (including chemical, civil, electrical and mechanical engineering, avionics, communication and mining), and computer science (including electronics and software design). The major themes of Mathematical Methods are life-related and abstract applications of calculus and statistics.

COURSE OUTLINE

The **Introduction to Mathematical – Methods** course is based on the P-10 Australian curriculum and will cover the three strands, Statistics and probability, Measurement and geometry and Number and algebra but will have a greater emphasis on algebra, functions and their graphs and probability to ensure students have the foundation skills for Mathematical Methods course in Years 11 and 12.

ALIGNMENT TO YEAR 11 AND 12

The **Introduction to Mathematical Methods** course is directly aligned to Year 11 and 12 Mathematical Methods through the content and assessment.

ALIGNMENT TO FURTHER QUALIFICATIONS

Mathematical Methods is a prerequisite for university courses such as Bachelor of Business, Bachelor of Engineering, Bachelor of Computer Science, Bachelor of Medical Studies, Bachelor of Health Studies, Bachelor of Para-medicine, Bachelor of Physiotherapy and Bachelor of Pharmacy. (Note: Mathematical Methods and Specialist Mathematics are assumed knowledge for a wide variety of university courses.)

ALIGNMENT TO FUTURE CAREERS

Corporate finance, investment banking, financial analyst, public and private sectors in energy, transportation, manufacturing, construction, telecommunications, pilot engineer, land development, mining, town planning, general practitioner, medical specialist, exercise science specialist, sport and recreation manager, medical research, software design and development, veterinarian, statistician.

PREREQUISITES

Nil

(Note: Students will find this subject extremely difficult if they have not achieved a high sound or better in Year 9 Mathematics.)

ASSESSMENT

The summative assessment for this course will mirror the form and frequency of the summative assessment requirements in Years 11 and 12. Problem solving will be a significant part of this assessment.

The assessment will consist of a problem solving and modelling task in Semester 1, an end of Semester 1 test and an end of Semester 2 test. Problem solving and modelling tasks will require students to demonstrate their skills in mathematical modelling and report writing. The assessment will require students to:

- recall and use facts, rules, procedures definitions
- apply mathematical concepts and techniques to solve problems
- carry out investigations and analyse the results
- construct mathematical models in a range of situations
- explain mathematical reasoning to justify procedures and decisions
- evaluate the reasonableness of solutions by assessing strengths, implications and limitations of solutions and/ or models, considering if alternative models or refinements are required
- communicate effectively using mathematical, statistical and everyday language and conventions
- make decisions about choice of technology and use the technology to solve problems.

REQUIREMENTS

- 1 x 256 page A4 exercise book, ruler, pens/pencils, protractor, compass and a calculator.
- The minimum requirement for this course is a scientific calculator e.g. Casio fx-82AU PLUS II or fx-100AU PLUS which can be purchased from the school Uniform Shop.
(Note: It will be mandatory for students to purchase a Casio fx-CG20AU or fx-CG50AU calculator (approx. \$220) for Years 11 and 12 if they continue to study Mathematical Methods. This calculator could be purchased for Year 10 if students are confident that they will continue their studies in Years 11 and 12.)

INTRODUCTION TO SPECIALIST MATHEMATICS

RATIONALE

Specialist Mathematics is designed for students with a strong interest in Mathematics. It provides additional preparation for tertiary studies in subjects with high mathematical demand, especially in the natural sciences, all branches of mathematics and statistics, computer science, medicine, finance and economics. The major themes of Specialist Mathematics are life-related and abstract applications of functions, calculus, probability and statistics, vectors, complex numbers and matrices. Specialist Mathematics has been designed to be taken in conjunction with Mathematical Methods.

COURSE OUTLINE

The **Specialist Mathematics** course is designed to deepen students understanding of the laws of mathematics, algebra, the nature of mathematical proof and develop student's problem solving skills.

ALIGNMENT TO YEAR 11 AND 12

The **Introduction to Specialist Mathematics** course is directly aligned to Year 11 and 12 Specialist Mathematics through the content and assessment.

ALIGNMENT TO FURTHER QUALIFICATIONS

Specialist Mathematics is an alternative prerequisite to Mathematical Methods for university courses such as Bachelor of Business, Bachelor of Engineering, Bachelor of Medical Studies, Bachelor of Health Studies, Bachelor of Paramedicine, Bachelor of Physiotherapy and Bachelor of Pharmacy. (Note: Specialist Mathematics and Mathematical Methods are assumed knowledge for a wide variety of university courses.)

ALIGNMENT TO FUTURE CAREERS

Corporate finance, investment banking, financial analyst, public and private sectors in energy, transportation, manufacturing, construction, telecommunications, pilot engineer, land development, mining, town planning, general practitioner, medical specialist, exercise science specialist, sport and recreation manager, medical research, software design and development, veterinarian, statistician.

PREREQUISITES

Students wishing to study Specialist Mathematics **must** also be studying Introduction to Mathematical Methods and should have achieved a high sound or better in Year 9 Mathematics.

ASSESSMENT

The summative assessment for this course will mirror the form and frequency of the summative assessment requirements in years 11 and 12. Problem solving will be a significant part of this assessment.

The assessment will consist of a problem solving and modelling task in Semester 1, an end of Semester 1 test and an end of semester 2 test. Problem solving and modelling tasks will require students to demonstrate their skills in mathematical modelling and report writing. The assessment will require students to:

- recall and use facts, rules, procedures definitions
- apply mathematical concepts and techniques to solve problems
- carry out investigations and analyse the results
- construct mathematical models in a range of situations
- explain mathematical reasoning to justify procedures and decisions
- prove propositions
- evaluate the reasonableness of solutions by assessing strengths, implications and limitations of solutions and/ or models, considering if alternative models or refinements are required
- communicate effectively using mathematical, statistical and everyday language and conventions
- make decisions about choice of technology and use the technology to solve problems.

REQUIREMENTS

Students need to purchase 1 x 256 page A4 exercise book, ruler, pens/pencils, protractor, compass and a calculator. The minimum requirement for this course is a scientific calculator e.g. Casio fx-82AU PLUS II or fx-100AU PLUS which can be purchased from the school Uniform Shop. (Note: It will be mandatory for students to purchase a Casio fx-CG20AU or fx-CG50AU calculator (approx. \$220), for years 11 and 12 if they continue to study Specialist Mathematics. This calculator could be purchased for year 10 if students are confident that they will continue their studies in years 11 and 12.)

MEDIA

WHY STUDY MEDIA?

Media is forever evolving and has a crucial impact on consumers. Media is the making and communicating of meaning involving film, television, newspapers, computers, mobile devices and the ever changing internet. Media provides a medium for social criticism, entertainment and is explored through the dimensions of *designing*, *producing* and *critiquing*.

Students who undertake Media are actively participating in a mode of learning that blends intellectual and emotional experience, offering students a unique means of enquiry that contributes to the knowing and understanding of themselves and the world.

PREREQUISITES

An understanding that it is a theory and practical based subject and therefore students must enter the subject with a willingness to spend their own time for editing and filming tasks. These aspects of the course can be time-consuming due to the technical proficiency required.

COURSE OUTLINE

This course is designed to:

- (a) provide opportunities to assist each student to achieve his/her unique potential through the various methods of assessment – designing, producing and critiquing;
- (b) develop learners' knowledge and understanding of scriptwriting, editing, storyboarding, and developing multi-modal presentations;
- (c) foster confidences and self-discipline in social interaction;
- (d) develop skills in interpersonal relationships and teamwork;
- (e) create a bridge for students wishing to undertake *Film, Television and New Media* in Years 10, 11 and 12.

Current units of study in the Media course include: exploring the history of media; examining the genres of reality TV, analysing film genre conventions and; applying filming and editing techniques. .

ASSESSMENT

Students will complete practical and written assessment in the areas of **Making and Responding** (e.g. scriptwriting, storyboarding); **Producing** (filming and editing a mini-movie montage); and **Critiquing** (e.g. multi-modal presentations, biography, persuasive speech, spoken critique).

Assessment will occur in small groups, pairs and individually.

REQUIREMENTS

- 1 x 48 page A4 exercise book and USB
- Students are expected to rehearse both in and out of lesson time and to provide any extra basic costumes and props for any productions

MUSIC

COURSE OUTLINE

Music is an integral part of our lives and is an important part of any student's educational development, whether they undertake the course for enjoyment and developing their music appreciation or aim for further study. This course is designed to develop the ability and knowledge of students at all standards of music experience through the study of three dimensions:

1. Making – singing or playing an instrument. Creating original music
2. Responding – analysis and evaluation

This course focuses on students creating and performing music and developing the ability to think and express themselves through sound. This is achieved through real-life learning experiences, with a strong emphasis on technology-based skills using specialised applications, software and recording equipment.

In Year 9 students build on and develop their skills through the study of three units: *Light & Dark*, *Homebaked*, and *Singer-Songwriter*.

In Year 10 students continue to build on and develop their skills through the study of three units: *Earworms*, *Music To Move To*, and *Music For Film and Television*

Practical areas which students may study include: guitar, keyboard, voice or another instrument of own choice.

PREREQUISITES

While it is advantageous for students to have completed, enjoyed and been successful at Year 7 and 8 Music, it is not necessary to have studied Music before Year 9.

ASSESSMENT

Music students are assessed in all three dimensions listed above. Assessment includes a variety of performance, composition, listening and written tasks.

RECOMMENDATIONS

Generally students wishing to take Music in Years 11 and 12 should have studied Music in Years 8, 9 and 10. Music teaches students many lifelong skills and is recommended for various fields of employment such as music teacher, performer, musician, sound mixer or editor, composer, music therapy, primary and early childhood teaching, instrument repairer and child-care worker.

Classroom Music students are encouraged to participate in the school's ensembles including Concert Bands, String Ensembles, Stage Bands and Vocal Ensembles.

REQUIREMENTS

- 1 x 96 page music exercise book (including manuscript)
- USB (minimum 16GB)
- Headphones

SCIENCE

COURSE OUTLINE

The Junior Science program aims to nurture students' innate curiosity about the living and non-living parts of the world around them.

In Year 9, Science students will spend one term studying each of the four key areas of science:

- **Biology** - Students explore the human body as a system and the interdependencies between biotic and abiotic components of ecosystems. They are also introduced to the science of psychology and learn about thinking, learning, memory and behaviour.
- **Chemistry** - Students learn how the atom is as a system of protons, electrons and neutrons, and explore how matter can be rearranged through chemical reactions.
- **Physics** - Students examine how wave and particle models can explain energy transfers involving heat, sound, light and electricity.
- **Earth Science** - Students learn how the theory of plate tectonics explains continental movements and global patterns of geological activity including volcanoes, Earthquakes and Tsunamis.

In Semester 1, Year 10 students will study each of the following five senior science topics in greater depth:

- **Biology** - Students explain the processes that underpin heredity and evolution. Students analyse how the models and theories they use have developed over time.
- **Chemistry** - Students analyse how the periodic table organises elements and explain how different factors influence the rate of chemical reactions.
- **Physics** - Students explain the concept of energy conservation and apply relationships between force, mass and acceleration to predict changes in the motion of objects.
- **Earth and Environmental Science** - Students describe interactions and cycles within Earth's spheres, and evaluate the evidence for scientific theories that explain the origin of the universe and the diversity of life on Earth.
- **Psychology** - Students examine brain physiology, cognitive processes and the concept of intelligence.

During Year 9 and Semester 1 Year 10, students undertake a range of investigations to further develop their inquiry skills. They control variables, collect data, consider safety, analyse data and identify relationships between variables. They evaluate their and others' methods from a scientific perspective and use appropriate language and representations when communicating their findings and ideas to specific audiences.

PREREQUISITES

Science is studied as a compulsory subject. There are no prerequisites.

The Year 9 and 10 programs will provide students with a solid grounding for the Semester 2 science electives and the Year 11 and 12 science subjects:

- Biology
- Chemical
- Earth and Environmental Science
- Psychology
- Physics

ASSESSMENT

The summative assessment for this course will include the following types of assessment:

- Student Experiment - carry out an experiment to generate and analyse primary data
- Research Assignment - research, collect, analyse and draw conclusions about secondary data and information
- Written Test - combination of multiple-choice, single-word, sentence or short paragraph responses and data-based questions

REQUIREMENTS

- 1 x 128 page A4 exercise book
- pencil case containing pens, 2B pencils, ruler, eraser, glue, scissors, colouring pencils and a sharpener