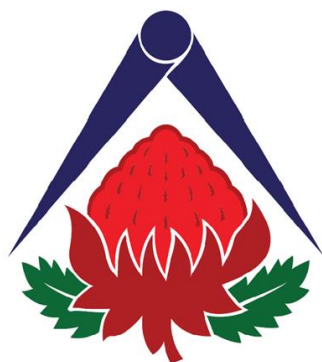


# KIRRAWEE HIGH



## Curriculum Guide

### Studying for the 2023-24 RoSA

An information handbook for students entering Year 9 in 2023, including general information of the Record of School Achievement (RoSA) and course descriptions.

Effort will be made to place students in the elective subjects of their choice. This is not always possible because of timetable constraints. Guarantee of placement in the desired pattern of electives cannot be given.

A copy of this document is available on our website under the 'Junior Students' tab



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# INTRODUCTION to the RoSA

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This booklet has been produced to assist students in choosing a pattern of courses for study in Years 9 and 10 leading to the award of a Stage 5 Credential. Eligible students who leave school before receiving their Higher School Certificate (HSC) will receive the NSW Record of School Achievement (RoSA). The RoSA is a cumulative credential in that it allows students to accumulate their academic results until they leave school.

Upon entering high school, students begin a pattern of studies common to all. This is a broad and balanced curriculum that introduces all Key Learning Areas (K.L.A's) and continues until the end of Year 8.

During Year 8, students will elect a new pattern of studies that will begin in Year 9 and continues until the end of Year 10. This curriculum pattern is still broad and balanced but allows students to study a group of courses as a major focus for the next two years.

At the end of Year 10, students will again have the opportunity to choose a completely different pattern of courses leading to the award of the Higher School Certificate. This pattern is much more specialised and based on student interest, ability and needs.

## **Making Subject Choices**

Year 8 students, in consultation with their parents and teachers, are to choose a pattern of courses from those that are available. Please note the following regarding this selection:

1. English, Mathematics, Science, History, Geography, and Personal Development, Health and Physical Education are mandatory for all students.
2. Three electives of the student's choice are to be studied for the next two years. For this reason, careful thought should be given to the choices made.
3. Every effort will be made to place students in the elective subjects of their choice. However, this is not always possible because of timetable constraints and **no guarantee of placement in the desired pattern of electives can be given.**
4. Course descriptions are included in this booklet to assist students with their choice.
5. Students are advised to choose a pattern of studies that will provide a broad and balanced curriculum.
6. Students may only study a maximum of 2 Industrial Technology courses. Industrial Technology courses offered at Kirrawee High School include: Engineering, Metal, Timber and Multimedia.

If you have difficulty in making a choice and would like assistance, the following staff can be contacted:

Class Teachers and Head Teachers of the subject's faculty, along with:

- Ms E McCrystal - Year 8 Student Adviser
- Mr T Sharp - Year 8 Student Adviser
- Mr G Munsie - Deputy Principal (Years 8, 10 and 12)

At the time of publication this document contained the most recent information available from the New South Wales Educational Standards Authority. Parents and students will be notified if new information becomes available or NESA changes occur. The *Kindergarten-Year 10* section on the NESA website provides regular updates. The address is: <http://educationstandards.nsw.edu.au/wps/portal/nesa/home>

# COMPULSORY COURSES

## ENGLISH

English is a mandatory course that is studied substantially in each of Years 7–10 with at least 400 hours to be completed by the end of Year 10. This is a requirement for eligibility for the award of the School Certificate.

### **Course Description**

Students of English in Years 7–10 learn to read, enjoy, understand, appreciate and reflect on the English language in a variety of texts, and to write texts that are imaginative, interpretive, critical and powerful.

### **What will students learn about?**

Students study books, films, radio, television, newspapers, the internet and multimedia. The texts give students experience of Australian literature, insights into Aboriginal experiences and multicultural experiences in Australia and literature from other countries and times.

Students also study texts that give experience of cultural heritages, popular cultures and youth cultures, picture books, every day and workplace texts, a range of social, gender and cultural perspectives. Students experience Shakespearean drama in Years 9 and 10.

### **What will students learn to do?**

Students develop their skills, knowledge and understanding so that they can use language and communicate appropriately and effectively for a range of purposes and audiences, in a range of contexts. They learn to think in ways that are imaginative, interpretive and critical. They express themselves and their relationships with others and the world. They reflect on their learning in English.

### **Course Requirements**

The study of English in Years 9 and 10 requires experience of at least two works of each of fiction, film, non-fiction and drama, a variety of poetry drawn from different anthologies or from particular poets.

In Years 9 and 10 the selection of texts must give students experience of Shakespearean drama.

### **Stage 5 Credential**

Satisfactory completion of the mandatory study of English during Years 9 and 10 will be recorded with a grade on the student's Stage 5 Credential (RoSA).

## GEOGRAPHY (MANDATORY)

The Geography (Mandatory) course must be studied substantially in each of Years 7–10 with at least 200 hours to be completed by the end of Year 10.

### **Aim**

In considering the intended learning, teachers will make decisions about the sequence, the emphasis to be given to particular areas of content, and any adjustments required based on the needs, interests and abilities of their students. Content including knowledge and understanding, concepts, skills and tools should be integrated to provide meaningful learning experiences for students. All students must undertake fieldwork in Stage 5. Where appropriate, students are to be provided with opportunities to investigate a wide range of places and environments from local to global scales.

### **Course Description**

**Place:** *the significance of places and what they are like* eg the effect of local and global geographical processes such as urbanisation, migration and climate change on tangible places such as a country as well as less tangible places such as a community.

**Space:** *the significance of location and spatial distribution, and ways people organise and manage spaces that we live in* eg location of biomes and the spatial distribution of urbanisation, global patterns of food, industrial materials and fibre production and variations of human wellbeing; conflicts arising from competing uses of space for agricultural, urban, recreational and industrial land uses.

**Environment:** *the significance of the environment in human life, and the important interrelationships between humans and the environment* eg the function and importance of the environment; the quality of the environment; significant environmental challenges; approaches to environmental management.

**Interconnection:** *no object of geographical study can be viewed in isolation* eg consequences of migration patterns on the location of origin and destination; the economic, social and environmental factors influencing spatial variations in global human wellbeing.

**Scale:** *the way that geographical phenomena and problems can be examined at different spatial levels* eg interactions between geographical processes at different scales; local alterations to environments can have global consequences; changes at a global level can impact local environments; management and protection of places and environments at local, regional, national and global scales.

**Sustainability:** *the capacity of the environment to continue to support our lives and the lives of other living creatures into the future* eg short and long-term implications of environmental change on environments; the importance of sustainable practices to ensure the wellbeing of people; sustainable environmental worldviews and management approaches.

**Change:** *explaining geographical phenomena by investigating how they have developed over time* eg biomes altered to produce food, industrial materials and fibres and the environmental effects of these alterations; the consequences of urbanisation; the protection of places and environments as a result of sustainable management practices.

## **What students will learn to do?**

### **Sustainable Biomes**

Students examine the physical characteristics and productivity of biomes. Students examine the correlation between the world's climatic zones and spatial distributions of biomes and their capacity to support food and non-food agricultural production. Students analyse the impact humans have on biomes in an effort to produce food and increase agricultural yields. They examine population trends and projections from Australia and across the world and forecast future food supply-and-demand issues. Challenges to food production are explored and management strategies investigated.

### **Changing Places**

Students examine the patterns and trends in population movements and the increasing urbanisation of countries. They discuss the reasons for internal and international migration patterns and the consequences of population movements, including the increased concentration of populations within countries. Students examine strategies to create liveable and sustainable urban places, propose solutions and suggest opportunities for active citizenship.

### **Environmental Change and Management**

Students develop an understanding of the functioning of environments and the scale of human-induced environmental change challenging sustainability. They explore worldviews influencing approaches to environmental use and management. Students undertake an investigative study of the causes and consequences of environmental change in an environment in Australia and another country. They compare and evaluate the management responses in both countries and propose ways individuals can contribute to environmental sustainability.

### **Human wellbeing**

Students examine the nature of, and differences in, human wellbeing and development that exist within and between countries. They describe ways of measuring human wellbeing and development to reveal spatial variations and develop explanations for differences. Students investigate examples from Australia and across the world of issues affecting development, the impact on human wellbeing and the consequences of spatial variations across scales. Local, national and global initiatives to improve human wellbeing are also examined.

## **Stage 5 Credential**

Satisfactory completion of the mandatory study of Geography during Years 9 and 10 will be recorded with a grade on the student's Stage 5 Credential (RoSA).

## HISTORY (MANDATORY)

The History (Mandatory) course must be studied substantially in each of Years 7–10 with at least 200 hours to be completed by the end of Year 10.

### Course Description

History develops in young people an interest in and enjoyment of exploring the past. A study of History provides opportunities for examining events, people and societies in the context of 20<sup>th</sup> century Australian History.

Over Years 9 and 10, students develop an understanding of significant developments in Australia's social, political and cultural history and the social history of one decade in depth. Australia's international relationships are examined through World War I and II and our role as a global citizen. The changing rights and freedoms of Indigenous peoples and other groups in Australia are also studied.

In Year 9 the topics studied are:

- Industrial revolution
- Australians at War

In Year 10 the topics studied are:

- The Holocaust
- Changing Rights and Freedoms
- Popular Culture

### What will students learn to do?

Students learn to apply the skills of investigating history including analysing sources and evidence and sequencing major historical events to show an understanding of continuity, change and causation. Students develop research and communication skills, including the use of ICT's, and examine different perspectives and interpretations to develop an understanding of a wide variety of viewpoints. Students also learn to construct a logical historical argument supported by relevant evidence and to communicate effectively about the past to different audiences.

### Stage 5 Credential

Satisfactory completion of the mandatory study of History during Years 9 and 10 will be recorded with a grade on the student's Stage 5 Credential (RoSA).

# MATHEMATICS

Mathematics is a mandatory course that is studied substantially in each of Years 7–10 with at least 400 hours to be completed by the end of Year 10. This is a requirement for eligibility for the award of the Stage 5 Credential.

Mathematics is divided into 3 courses, called 5.1, 5.2 and 5.3 indicating Stage 5 (courses 1, 2 and 3). Course 3 being for students showing a high achievement in Mathematics. Students will be placed into courses based on their achievements during Year 8.

Student results in Years 9 and 10 will determine the level of study of Mathematics for the HSC.

## Course Description

Mathematics is used to identify, describe and apply patterns and relationships. It provides a precise means of communication and is a powerful tool for solving problems both within and beyond mathematics. In addition to its practical applications, the study of mathematics is a valuable pursuit in its own right, providing opportunities for originality, challenge and leisure.

The aim of Mathematics in K–10 is to develop students' mathematical thinking, understanding, competence and confidence in the application of mathematics, their creativity, enjoyment and appreciation of the subject, and their engagement in lifelong learning.

## What will students learn about?

Students study three strands:

Number and Algebra, Measurement and Geometry, Statistics and Probability. Within each of these strands they will cover a range of topics including:

fractions	decimals	percentages
consumer arithmetic	properties of solids	algebraic techniques
coordinate geometry	geometrical figures	surface area and volume
area	perimeter	trigonometry
probability	graphing and interpreting data	deductive geometry

## What will students learn to do?

Students learn to ask questions in relation to mathematical situations and their mathematical experiences; develop, select and use a range of strategies, including the use of technology, to explore and solve problems; develop and use appropriate language and representations to communicate mathematical ideas; develop and use processes for exploring relationships, checking solutions and giving reasons to support their conclusions; and make connections with their existing knowledge and understanding and with the use of mathematics in the real world.

## Stage 5 Credential

Satisfactory completion of the mandatory study of Mathematics during Years 9 and 10 will be recorded with a grade, A10, A9, B8, B7, C6, C5, D4, D3, E2 on the Stage 5 Credential. The grade result indicates performance across the entire Year 10 cohort **not** on a performance in the individual course studied.

Personal Development, Health and Physical Education (PDHPE) is a mandatory course that is studied in each of Years 7–10 with at least 300 hours to be completed by the end of Year 10. This is a requirement for eligibility for the award of the Stage 5 Credential (RoSA).

## Course Description

Personal Development, Health and Physical Education (PDHPE) develops the knowledge, understanding, skills and attitudes important for students to take positive action to protect and enhance their own and others' health, safety and wellbeing in varied and changing contexts.

The study of PDHPE provides students with the opportunity to enhance and develop resilience and connectedness and learn to interact respectfully with others. Through PDHPE students develop the skills to research, apply, appraise and critically analyse health and movement concepts in order to maintain and improve their health, safety, wellbeing and participation in physical activity. Students are provided with opportunities to learn to critique and challenge assumptions, attitudes, behaviours and stereotypes and evaluate a range of health-related sources, services and organisations. They develop a commitment to the qualities and characteristics that promote and develop empathy, resilience, respectful relationships, inclusivity and social justice. Students practise, develop and refine the physical, cognitive, social and emotional skills that are important for engaging in movement and leading a healthy, safe and physically active life.

## What will students learn about?

### *Health, Wellbeing and Relationships*

The strand Health, Wellbeing and Relationships focuses on students developing the knowledge, understanding and skills important for building respectful relationships, enhancing personal strengths and exploring personal identity to promote the health, safety and wellbeing of themselves and others. Students develop strategies to manage change, challenges, power, abuse, violence and how to protect themselves and others in a range of situations.

### *Movement Skill and Performance*

The strand Movement Skill and Performance focuses on active participation in a broad range of movement contexts to develop movement skill and enhance performance. Students develop confidence and competence to engage in physical activity. They develop an understanding of movement concepts and the features of movement composition as they engage in a variety of planned and improvised movement experiences.

### *Healthy, Safe and Active Lifestyles*

The strand Healthy, Safe and Active Lifestyles focuses on the interrelationship between health and physical activity concepts. Students develop the knowledge, understanding and skills to empower them to make healthy and safe choices and act to promote the health, safety and wellbeing of their communities. They engage with a range of health issues and identify strategies to keep them healthy, safe and active.

## What will students learn to do?

Throughout the course students will learn to apply some key skills that allow them to act for health and physical activity. These include:

*Self-management skills* help develop a student's capacity to be confident, independent, optimistic and resilient. These skills enable students to become self-aware and develop and refine self-monitoring and self-evaluative behaviours.

*Interpersonal skills* develop a student's capacity to effectively relate to and interact with other people. Children and young people develop interpersonal skills through interactive experiences that involve various forms of communication and collaboration.



*Movement skills* enable students to engage in and enjoy the benefits of regular, vigorous physical activity. Developing fundamental and tactical movement skills in PDHPE provides students with the opportunity to acquire and master a range of movement skills, understand the health benefits of movement, and have the skills and dispositions to participate in a lifetime of physical activity as confident, competent and creative movers.

### **Stage 5 Credential**

Satisfactory completion of the mandatory PDHPE course will be recorded with a grade on the student's Stage 5 Credential (RoSA).

## **SCIENCE**

Science is a mandatory course that is studied substantially in each of Years 7–10 with at least 400 hours to be completed by the end of Year 10.

### **Course Description**

Science develops students' skills, knowledge and understanding in explaining and making sense of the biological, physical and technological world. Through applying the processes of Working Scientifically students develop understanding of the importance of scientific evidence in enabling them as individuals and as part of the community to make informed, responsible decisions about the use and influence of science and technology on their lives.

### **What will students learn about?**

Through their study of Science, students develop knowledge of scientific concepts and ideas about the living and non-living world. They gain increased understanding about the unique nature and development of scientific knowledge, the use of science and its influence on society, and the relationship between science and technology.

### **What will students learn to do?**

Students actively engage individually and in teams in scientific inquiry. They use the processes of Working Scientifically to plan and conduct investigations. By identifying questions and making predictions based on scientific knowledge and drawing evidence-based conclusions from their investigations, students develop their understanding of scientific ideas and concepts, and their skills in critical thinking and problem-solving. They gain experience in making evidence-based decisions and in communicating their understanding and viewpoints.

### **Course Requirements**

All students are required to undertake at least one research project during each of Stage 4 and Stage 5. At least one project will involve 'hands-on' practical investigation. At least one Stage 5 project will be an individual task.

### **Stage 5 Credential**

Satisfactory completion of the mandatory study of Science during Years 9 and 10 will be recorded with a grade on the student's Stage 5 Credential (RoSA).

**Cost:** STILE Year 9 \$12

Year 10 STILE \$12

# ELECTIVE COURSES

Three electives of the student's choice are to be studied for the next two years. For this reason, careful thought should be given to the choices made.

## COMMERCE

Commerce is an elective course that can be studied for 200 hours (2 years).

### Course Description

Commerce provides the knowledge, understanding, skills and values that form the foundation on which young people make sound decisions about consumer, financial, economic, business, legal, political and employment issues. It develops in students an understanding of commercial and legal processes and competencies for personal consumer and financial management. Through the study of Commerce students develop consumer and financial literacy which enables them to participate in the financial system in an informed way.

### Course structure and requirements

Students will undertake a 200 hour of study in Commerce in Stage 5. Courses are structured in the following ways:

#### 200-hour course

- all FOUR Core Study topics
- additional study of selected options to meet the 200-hour requirement.

Each option builds on the essential learning of the core and allows teachers and students to extend core learning.

The Core Study topics and options may be studied in any order or pattern.

Across a 200-hour course students may study only ONE School-developed Option.

#### Core study

Each Core Study topic should be 20–25 indicative hours

1. Consumer and Financial Decisions
2. The Economic and Business Environment
3. Employment and Work Futures
4. Law, Society and Political Involvement

#### Options

Each Option topic should be 15–25 indicative hours

1. Our Economy
2. Investing
3. Promoting and Selling
4. Running a Business
5. Law in Action
6. Travel
7. Towards Independence
8. School-developed Option

#### Stage 5 Credential

Satisfactory completion of 200 hours of study in Commerce during Years 9 and 10 will be recorded with a grade the student's Stage 5 Credential (RoSA).

## DANCE

Dance is an elective course that can be studied for 200 hours.

### Course Description

Dance provides students with opportunities to experience and enjoy dance as an art form as they perform, compose and appreciate dance. In an integrated study of the practices of performance, composition and appreciation, students develop both physical skill and aesthetic, artistic and cultural understandings. The course enables students to express ideas creatively and to communicate physically, verbally and in written forms as they make, perform and analyse dances and dance forms.

### What will students learn about?

All students study dance performance, composition and appreciation. They will learn about the elements of dance (space, time and dynamics) and how they are used in, and link, the three practices. They will learn about performing dances with an awareness of safe dance practice, dance technique and performance quality. They will learn about how dance expresses ideas, feelings and experiences as they construct dance compositions to communicate ideas. They learn about people, culture and society as they study and analyse dance performances, compositions and dance works of art.

### What will students learn to do?

Students will learn to develop an articulate body as they perform a range of dances in a variety of styles with a working knowledge of safe dance practice. They will learn to structure movement as they compose dances to express their ideas, feelings and experiences. They will learn to use the language of dance and to describe movements using the elements of dance as they view, discuss, read and write about dance. Drawing from their experiences gained in performing, composing and appreciating dances, they will learn to make connections between the making and performing of the movement and the appreciation of its meaning.

### Stage 5 Credential

Satisfactory completion of 200 hours of study in Dance during Years 9 and 10 will be recorded with a grade the student's Stage 5 Credential (RoSA).

**Cost:** Year 9 \$35

Year 10 \$35

## DRAMA

Drama is an elective course that can be studied for 200 hours.

### Course Description

Drama enables young people 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 in the first 100 hours. Examples of these include improvisation, mime, script, puppetry, small screen drama, physical theatre, street theatre, mask, comedy and Shakespeare. 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.

### **Stage 5 Credential**

Satisfactory completion of 200 hours of study in Drama during Years 9 and 10 will be recorded with a grade the student's Stage 5 Credential (RoSA).

**Cost:** Year 9 \$30

Year 10 \$30

## **ELECTIVE HISTORY**

Elective History is an elective course that can be studied for 200 hours.

### **Course Description**

The study of History Elective enables students to investigate the actions, motives and lifestyles of people over time, from individuals and family members, to local communities, expanding to national and world history contexts. It introduces the idea that the past contains many stories and that there is never only one uncontested version. There are many differing perspectives within a nation's history, and historians may interpret events differently depending on their point of view and the sources they have used.

### **What will students learn about?**

The aim of the History Elective Years 9–10 Syllabus is to encourage students' interest in and enjoyment of exploring the past, to develop a critical understanding of the past, and to enable them to participate as informed, responsible and active citizens.

The History Elective course consists of three topics which include a range of options for study. The topics include:

Topic 1: History, Heritage and Archaeology

Topic 2: Ancient, Medieval and Modern Societies

Topic 3: Thematic Studies

Courses are structured in the following ways:

200 hours: ONE option from each of Topics 1, 2 and 3 and at least TWO other options from any of the topics.

The historical concepts and skills are to be integrated with the content of topics studied in the History Elective course.

The options selected in the History Elective course must not overlap or duplicate significantly any of the studies selected from the History K–10 Syllabus and the Stage 6 syllabuses for Ancient History, Modern History and History Extension.

### **What will students learn to do?**

The History Elective course develops the skills for students to answer the question 'How do we know?' An investigation of an historical issue through a range of sources can stimulate curiosity and develop empathetic understanding, problem-solving, research and critical thinking skills. It develops language specific to the discipline of History and provides opportunities to further develop literacy skills. Students learn to critically analyse and use sources of evidence in order to construct reasoned explanations and a rational and informed argument based on evidence, drawn from the remains of the past. Students engage in research involving information and communication technology (ICT), including evaluating web-based sources and using a range of technologies for historical research and communication.

### **Stage 5 Credential**

Satisfactory completion of 200 hours of study in Elective History will be recorded with a grade on the student's Stage 5 Credential (RoSA).

## **FOOD TECHNOLOGY**

Food Technology is an elective course that can be studied for 200 hours.

### **Course Description**

The study of Food Technology provides students with a broad knowledge and understanding of food properties, processing, preparation and their interrelationship, nutritional considerations and consumption patterns. It addresses the importance of hygiene and safe working practices and legislation in the production of food. Students will develop food-specific skills, which can then be applied in a range of contexts enabling students to produce quality food products. It also provides students with a context through which to explore the richness, pleasure and variety food adds to life and how it contributes to both vocational and general life experiences.

### **What will students learn about?**

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

The major emphasis of the Food Technology syllabus 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. Students develop the ability and confidence to design, produce and evaluate solutions to situations involving food. They learn about Work Health and Safety issues, and learn to select and use appropriate ingredients, methods and equipment safely and competently.

- Food in Australia
- Food service and catering
- Food for special needs
- Food equity
- Food product development
- Food for special occasions
- Food trends
- Food selection and health

### **What will students learn to do?**

The major emphasis of the Food Technology syllabus 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. Integral to this course is students developing the ability and confidence to design, produce and evaluate solutions to situations involving food. They will learn to select and use appropriate ingredients, methods and equipment safely and competently. The link to future employment options in the nutrition, dietetics and hospitality field is strong.

### **Stage 5 Credential**

Satisfactory completion of 200 hours of elective study in Food Technology will be recorded with a grade on the student's Stage 5 Credential (RoSA).

**Cost:** Year 9 \$110

Year 10 \$110

## **FRENCH**

French is an elective course that can be studied for 200 hours.

### **Course Description**

French gives students an opportunity to communicate in another language, to experience a significantly different culture and to understand English and their own society from a new perspective. Students build confidence through role-playing and group work.

### **What will students learn about?**

Students will develop the knowledge, understanding and skills necessary for effective interaction in French. They will explore the nature of languages as systems by making comparisons between English and French. Students will also develop intercultural understandings by reflecting on similarities and differences between Australian culture and the culture of French speaking communities.

**What will students learn to do?**

Students will develop the skills to communicate in French. They will listen and respond to spoken language. They will learn to read and respond to written French texts such as letters, emails, advertisements, articles and so on. Students will establish and maintain communication in familiar situations using French. They develop a capacity to interact with French speaking people, their culture and their language and use technology in an interactive French environment.

French is one of the major languages of the world and France is one of the leading destinations for Australian travellers. The ability to communicate in French enriches this experience and provides students with opportunities for continued learning and for future employment, both domestically and internationally, in areas such as commerce, tourism, hospitality and international relations.

Kirrawee High has a sister school arrangement with St Michel College in the Reunion Islands which provides opportunities to host French students and to visit and study in Reunion and Paris.

**Stage 5 Credential**

Satisfactory completion of 200 hours of elective study in French will be recorded with a grade on the student's Stage 5 Credential (RoSA).

**Cost:** Year 9 \$45 Booklet

Year 10 \$15 Online subscription

## GRAPHICS TECHNOLOGY

Graphics Technology is an elective course that may be studied for 200 hours.

**Course Description**

The study of Graphics Technology provides students with knowledge of the techniques and technologies used to graphically convey technical and non-technical ideas and information. Students are introduced to the significance of graphical communication as a universal language and develop the ability to read, interpret and produce graphical presentations that communicate information using a variety of techniques and media.

**What will students learn about?**

Students learn to design, prepare and develop graphical presentations using both instrument drawing and computer-aided design (CAD). They learn to interpret and analyse graphical images and presentations to develop an understanding of the use of graphics in industrial, commercial and domestic applications. The major emphasis of the course is on students actively planning, developing and producing quality graphics projects, including drawings, images and models.

Students undertaking 200 hours of Graphics Technology are required to complete Core Module 1 and Core module 2: Computed aided design (CAD) and four to six options that focus on specific areas of graphics including:

- Architectural Drawing
- Australian Architecture
- Cabinet and Furniture Drawing
- Computer Aided Design (CAD)
- Computer Animation
- Engineering Drawing
- Graphic Design and Communication
- Landscape Drawing
- Product and Technical Illustration
- Student Negotiated Project

**What will students learn to do?**

The major emphasis of the Graphics Technology syllabus is on students' actively planning, developing and producing quality graphical presentations. Students will learn to design, prepare and present

graphical presentations using both manual and computer based drafting technologies. They will learn to interpret and analyse graphical images and presentations and develop an understanding of the use of graphics in industrial, marketing and engineering applications. The link to future career options in the architectural, engineering, and industrial design fields are strong.

### **Stage 5 Credential**

Satisfactory completion of 200 hours of study in Graphics Technology will be recorded with a grade on the student's Stage 5 Credential (RoSA).

**Cost:** Year 9 \$25

Year 10 \$25

## **INDUSTRIAL TECHNOLOGY – ENGINEERING**

Industrial Technology – Engineering is an elective course that may be studied for 200 hours.

### **Course Description**

The Engineering focus area provides opportunities for students to develop knowledge, understanding and skills in relation to engineering and its associated industries.

### **What will students learn about?**

Students will learn about engineering disciplines including civil engineers, who provide vital infrastructure; mechanical engineers who design race cars or the operate the International Space Station; biomedical engineers who develop life-changing technologies; environmental engineers who protect our natural heritage sites; electrical engineers develop new clean sources of energy; and software engineers are working on artificial intelligence.\

Students will complete the following modules:

- Civil Structures
- Mechanisms
- Alternate Energy
- Control Systems
- School-Developed Module
- Transport

### **What will students learn to do?**

Through a combination of both theory and practical projects students will learn to apply knowledge of the fundamental physics of forces and the chemical properties of materials to design and produce projects. Students will learn to use technical drawings and engineering reports to communicate their ideas. Students will learn about the historical development and evaluate the social, economic and environmental impacts of the work of engineers.

### **Stage 5 Credential**

Satisfactory completion of 200 hours of study in Industrial Technology – Engineering will be recorded with a grade on the student's Stage 5 Credential (RoSA).

**Cost:** Year 9 \$45

Year 10 \$45

## **INDUSTRIAL TECHNOLOGY – METAL**

Metal Technology is an elective course that can be studied for 200 hours.

### **Course Description**

Metal Technology develops students' knowledge and understanding of materials and processes. They develop knowledge and skills relating to the selection, use and application of materials, tools, machines and processes through the planning and production of quality practical projects.

Projects will be determined on the skill level and interest of the students. Several skill building projects will be completed before a major project of the student's own choice and design is undertaken in Year 10. Areas which may be studied include fabrication and welding, sheet metal, lathe work, art-metal (including silver) and sculpture. Some elementary projects in electronics will be introduced in the practical area.

### **What will students learn about?**

All students will learn about the properties and applications of materials associated with metal. They will study the range of tools, machines and processes available in both industrial and domestic settings for working with selected materials. Students will learn about safe practices for practical work environments, including risk identification and minimisation strategies. They will also learn about design and designing including the communication of ideas and processes.

### **What will students learn to do?**

The major emphasis of the Metal Technology syllabus is on students actively planning and constructing quality practical projects. Students will learn to select and use a range of materials for individual projects. They will learn to competently and safely use a range of hand tools, power tools and machines to assist in the construction of projects. They will also learn to produce drawings and written reports to develop and communicate ideas and information relating to projects.

### **Stage 5 Credential**

Satisfactory completion of 200 hours of study in Metal Technology will be recorded with a grade on the student's Stage 5 Credential (RoSA).

**Cost:** Year 9 \$55

## **INDUSTRIAL TECHNOLOGY – MULTIMEDIA**

Multimedia Technology is an elective course that may be studied for 200 hours.

### **Course Description**

The Multimedia focus area provides opportunities for students to develop knowledge, understanding and skills in relation to multimedia, photographic and associated industries. The Multimedia 1 core module includes common content and topic content that develops knowledge and skills in the use of tools, materials and techniques related to Web Design and Video Production. These are enhanced and further developed through the study of the Multimedia 2 specialist module in Apps and Interactivity, and Games and Simulations.

### **What will students learn about?**

Practical projects should reflect the nature of the Multimedia focus area and provide opportunities for students to develop specific knowledge, understanding and skills related to multimedia technologies.

These may include:

- 2D and 3D animations
- augmented reality (AR) or virtual reality (VR) products
- computer games
- ePublications
- individual photographic images and graphics (for print and/or digital display)
- videos
- websites and apps



Projects should promote the sequential development of skills and reflect an increasing degree of student autonomy as they progress through the course. Project management techniques in the graphic design, product marketing field are developed.

#### **What will students learn to do?**

Use computer applications to produce multimedia presentations. Applications such as PowerPoint, Flash, HTML, photo-editing software and Movie Maker programs will be utilised in the production of practical exercises.

#### **Stage 5 Credential**

Satisfactory completion of 200 hours of study in the Multimedia Technology course will be recorded with a grade on the student's Stage 5 Credential (RoSA).

**Cost:** Year 9 \$35

Year 10 \$35

## **INDUSTRIAL TECHNOLOGY – TIMBER**

Timber Technology is an elective course that can be studied for 200 hours.

#### **Course Description**

Timber Technology develops students' knowledge and understanding of materials and processes. They develop knowledge and skills relating to the selection, use and application of materials, tools, machines and processes through the planning and production of quality practical projects. Projects will be determined on the skill level and interest of the students. Several skill building projects will be completed before a major project of the student's own choice and design is undertaken in Year 10. Areas which may be studied include cabinetmaking, wood turning and wood machining. This course should give students confidence and skills in the domestic renovation area and industrial situation.

#### **What will students learn about?**

All students will learn about the properties and applications of materials associated with timber. They will study the range of tools, machines and processes available in both industrial and domestic settings for working with selected materials. Students will learn about safe practices for practical work environments, including risk identification and minimisation strategies. They will also learn about design and designing including the communication of ideas and processes.

#### **What will students learn to do?**

The major emphasis of the Timber Technology syllabus is on students actively planning and constructing quality practical projects. Students will learn to select and use a range of materials for individual projects. They will learn to competently and safely use a range of hand tools, power tools and machines to assist in the construction of projects. They will also learn to produce drawings and written reports to develop and communicate ideas and information relating to projects. Skills in employment related fields of the timber area are supported and developed.

#### **Stage 5 Credential**

Satisfactory completion of 200 hours of study in Timber Technology will be recorded with a grade on the student's Stage 5 Credential (RoSA).

**Cost:** Year 9 \$75

Year 10 \$75

## **INFORMATION & SOFTWARE TECHNOLOGY**

Information and Software Technology is an elective course that can be studied for 200 hours.

### **Course Description**

People will require highly developed levels of computing and technology literacy for their future lives. Students therefore need to be aware of the scope, limitations and implications of information and software technologies.

Individual and group tasks, performed over a range of projects, will enable this practical-based course to deliver the relevant knowledge and skills needed by students. Development of technology skills and information about career opportunities within this area are important aspects of the course.

### **What will students learn about?**

The core content to be covered in this course is integrated into the options chosen within the school. The course has been designed with an emphasis on practical activities that allow students to sustain focus in a range of interest areas at some depth.

The option topics to be studied within this course include:

- Artificial Intelligence, Simulation and Modelling
- Software Development and Programming
- Authoring and Multimedia
- Robotics and Automated Systems
- Internet and Website Development

### **What will students learn to do?**

Students will identify a need or problem to be solved, explore a range of possible solutions and produce a full working solution. They will use a variety of technologies to create, modify and produce products in a range of media formats.

Group and individual project-based work will assist in developing a range of skills, including research, design and problem-solving strategies over the chosen topics.

### **Stage 5 Credential**

Satisfactory completion of 200 hours of study in Information and Software Technology will be recorded with a grade on the student's Stage 5 Credential (RoSA).

## **INTERNATIONAL STUDIES**

International Studies is an elective course that can be studied for 200 hours.

### **Course Description**

International Studies is student driven course. Apart from one compulsory core unit the course can be adapted to the interests of the students. The options are interdisciplinary and provide a unique conceptual framework for the study of culture, and the promotion of intercultural understanding. Each year the students will select 2 or 3 options that will shape their study. The options are varied and include themes such as; Visual and Performing Arts, Sport, Textiles, Art and Architecture, Travel, Science, Technology and Change and Food. There is also the option to create our own option so it is very flexible. Student interest drives the direction of this dynamic course.

### **What will students learn about?**

Through the study of options students will develop their understanding of how cultural knowledge informs our values. Students will also see how subjects are linked to each other, giving them a deeper understanding of their other subjects and highlighting the importance of making connections. There will be a focus on international collaboration to develop community participation, action and commitment to be a global citizen.

### **What will students learn to do?**

Students will develop the skills such as critical thinking, intercultural understanding, communication, creativity and collaboration. These skills will help students to learn to gather and analyse information, manage projects, work in a team and look at the world through a more informed lens.

Thanks to technology the future workplace is becoming more and more global. International studies will give students the opportunity to work with international partnerships as well as at a local level to ensure they are best prepared to take part in the global opportunities that will be available to them in the future.

Kirrawee High has a partnership with Yashiro Super Science High and College Le Mennais, Tahiti. These schools have existing programs focused on sustainability and STEM that we have been invited to collaborate with. The partnership is optional as students will have their own projects that are based on their interests.

### **Stage 5 Credential**

Satisfactory completion of 100 hours of this elective study during Year 9 will be recorded with a grade on the student's Stage 5 Credential (RoSA). The 100 hours completed in Year 10 will not appear on the student's Stage 5 Credential (RoSA).

**Cost:** Year 9 \$30 Booklet

## **iSTEM**

iSTEM is an elective course that can be studied for 200 hours.

### **Course Description**

Science, technology, engineering and mathematics are fundamental to shaping the future of Australia. They provide enabling skills and knowledge that increasingly underpin many professions and trades, and the skills of a technologically based workforce. The iSTEM course utilises these knowledge pillars in their application to Science, Technology Engineering and Maths.

STEM skills are applied across all fields of employment, from Aerospace to Law to Medicine. Specialist STEM occupations may be in cutting edge technology like such as Artificial Intelligence for Self-Driving Cars, Virtual Reality or technology start-ups that develop the next life changing technology.

There is a world focus on these fields that seek to grow the supply of graduates with the skills and knowledge developed through a quality education in STEM subjects. The reason is straightforward, the world's dependence on knowledge and innovation will grow and not diminish and to be ahead in the race, a community needs the skills to anticipate rather than follow, which this course develops.

### **What will students learn about?**

The iSTEM course utilises a practical integrated approach with engineering and technology being used to drive engagement in science and mathematics, through the development of technical skills and mechanical engineering knowledge. Its purpose is to increase the numbers of students studying STEM based subjects in the senior years and ultimately the number of student matriculating to tertiary study at both university and trade levels in STEM or STEM based employment.

There are four core modules

- STEM Fundamentals 1
- STEM Fundamentals 2
- Mechatronics 1
- Mechatronics 2
- 

Ten elective modules of which students will study up to 6

- Aerodynamics
- Motion
- STEM PBL Major
- Surveying

- CAD/CAM1
- CAD/CAM2
- STEM PBL Minor
- Design for Space
- Statistics in Action
- Biotechnology

### **What will students learn to do?**

Students will learn:

- skills in critically evaluating data, research and sources
- skills in communicating ideas to affect change
- inquiry and project-based learning skills appropriate to STEM practice
- knowledge and understanding of scientific and mechanical concepts through Investigations of technology and engineering
- knowledge and understanding of STEM principles and processes
- skills in solving STEM based problems and meeting STEM challenges using mechanical, graphical and scientific methods
- problem solving skills in a range of STEM contexts.
- an appreciation of the role and potential of STEM in the world in which they live
- an understanding of the contribution of STEM disciplines to the economic well-being of nations

### **Stage 5 Credential**

Satisfactory completion of 100 hours of elective study in iSTEM during Year 9 will be recorded with a grade on the student's Stage 5 Credential (RoSA). The 100 hours completed in Year 10 will not appear on the student's Stage 5 Credential (RoSA).

**Cost:** Year 9 \$50

Year 10 \$50

## **JAPANESE**

Japanese is an elective course that can be studied for 200 hours.

### **Course Description**

Japanese gives students an opportunity to communicate in another language, to experience a significantly different culture and to understand English and their own society from a new perspective. Learning kana and kanji, the Japanese writing system, develops visual and interpretive skills. Students build confidence through role-playing and group work.

### **What will students learn about?**

Students will develop the knowledge, understanding and skills necessary for effective interaction in Japanese. They will explore the nature of languages as systems by making comparisons between English and Japanese. Students will also develop intercultural understandings by reflecting on similarities and differences between Australian and Japanese culture.

### **What will students learn to do?**

Students will develop the skills to communicate in Japanese. They will listen and respond to spoken language. They will learn to read and respond to written Japanese texts such as letters, emails, advertisements in digital and written formats. Students will establish and maintain communication in familiar situations using Japanese. They develop a capacity to interact with Japanese people, their culture and their language and use technology in an interactive Japanese learning environment.

The study of Japanese provides access to the language and culture of one of the global community's most technologically advanced societies and economies. It provides students with opportunities for continued learning and for future employment, both domestically and internationally, in areas such as commerce, tourism, hospitality and international relations.

Kirrawee High has a sister-school arrangement with Komae High in Tokyo which provides our students with opportunities to host Japanese students, and to visit and study in Japan.

### Stage 5 Credential

Satisfactory completion of 200 hours of elective study in Japanese be recorded with a grade on the student's Stage 5 Credential (RoSA).

**Cost:** Year 9 \$45 Booklet

Year 10 \$15 Online subscription

## MARINE STUDIES

Marine Studies is an elective course based on the Marine and Aquaculture Technology CEC Course.

### Course Description

The oceans, inland waterways and other bodies of water cover more than 70 per cent of the Earth's surface and influence all forms of life on this planet. Of the 33 animal phyla, 28 are found in water; 13 of these are exclusively marine.

Marine Studies fits into an emerging field of study relating to sustainability of marine and related environments. At a time of pressure on the marine environment there is a recognised need to deliver sound marine educational programs through formal structures with a focus on the local environment. Young Australians must be aware of and understand this fragile environment and consider how to effectively manage 69 630 kilometres of coastline, 14.8 million square kilometres of continental shelf, 12 000 islands, 783 major estuaries and the life they contain.

Students will complete Core 1 and Core 2 with a selection of at least 11 of the following modules:

Core 1 – Introduction to Marine & Aquaculture Technology 25 indicative hours (Year 9)

Core 2 – Skills, Management and Employment 10 indicative hours (Year 10)

Waterbirds of New South Wales	Introducing Estuaries
Mangroves	Marine Pests and Threats/ Pests and Diseases of Aquatic Organisms
Microscopic Aquatic Organisms	Temperate Marine Ecosystems
Marine and Aquatic Plants	Antarctica's Marine Ecology
Marine Mammals	The Abyss
Dangerous Marine Creatures	Biology of Native Crayfish/ Fish Biology
The Oceans	Food from the Sea
Living Together in the Sea	Coastal Management/Local Area Study

### What will students learn to do?

Marine Studies provides an opportunity for the future custodians of this environment to study it and to appreciate its value. It gives them the opportunity to develop the necessary knowledge and skills to use and protect its unique ecosystems, and at the same time communicate their appreciation to the community. The knowledge, understanding and skills in the syllabus provide opportunities for students to make informed arguments for the maintenance of biodiversity and the sustainable use of marine ecosystems.

## Stage 5 Credential

Satisfactory completion of 200 hours of study in Marine Studies – Marine and Aquaculture Technology - will be recorded with a grade on the student's Stage 5 Credential (RoSA).

Cost: Year 9 \$50

Year 10 \$50

## MUSIC

Music is an elective course that can be studied for 200 hours.

### 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. 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?

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, use of the latest computer technology and recording facilities.

The elective course 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, compose music that represents the topics they have studied and listen with discrimination, meaning and appreciation to a broad range of musical styles. The study of the concepts of music underpins the development of skills in performing, composing and listening and aides the understanding of musical form.

They use current technologies to help create and record their music within in a collaborative framework. They learn to communicate through online sources to assist in their collaborative tasks.

## Stage 5 Credential

Satisfactory completion of 200 hours of study in Music will be recorded with a grade on the student's Stage 5 Credential (RoSA).

Cost: Year 9 \$30

Year 10 \$30

## PHYSICAL ACTIVITY & SPORTS STUDIES

Physical Activity and Sports Studies is an elective syllabus in the PD/H/PE Key Learning Area (KLA). It can be studied for 200 hours.

### Course Description

Physical Activity and Sports Studies enhances the student's capacity to participate effectively in and understand physical activity, leading to improved quality of life for themselves and others. It provides opportunities to develop skills proving advantageous in voluntary/community work as well as part-time, casual and full-time career prospects. Examples include recreation, sports administration, the fitness industry, personal training, outdoor leadership, coaching, professional sporting careers and vocational elements such as teaching, sports science and event management.

### **What will students learn about?**

*Foundations of Physical Activity* – Body systems and energy for physical activity, Physical activity for health, Physical fitness, Fundamentals of movement skill development, Nutrition and physical activity, Participating with safety.

*Physical Activity and Sport in Society* – Australia’s sporting identity, Lifestyle, leisure and recreation, Physical activity and sport for specific groups, Opportunities and pathways in physical activity and sport, Issues in physical activity and sport

*Enhancing Participation and Performance* – Promoting active lifestyles, Coaching, Enhancing performance – strategies and techniques, Technology, participation and performance, Event management.

### **What will students learn to do?**

- Describe factors, analyse benefits, describe the nature of, demonstrate, evaluate, work cooperatively, display initiative, plan, achieve and perform.

*ALL in direct relation to:*

- Physical activity/capacity, performance, sport, history, social and cultural perspectives.

### **Stage 5 Credential**

Satisfactory completion of 200 hours of study in Physical Activity and Sports Studies will be recorded with a grade on the student’s Stage 5 Credential (RoSA).

## **TEXTILES TECHNOLOGY**

Textiles Technology is an elective course that can be studied for 200 hours.

### **Course Description**

The study of Textiles Technology provides students with knowledge of the properties, performance and uses of textiles. They explore fabrics, yarns, fibres and colouration. Students examine the historical, cultural and contemporary perspectives on textile design and develop an appreciation of the factors affecting them as textile consumers. Students investigate the work of textile designers and make judgements about the appropriateness of design ideas, the selection of materials and tools, and the quality of textile items. Textile projects give students the opportunity to be creative, independent learners and to explore functional and aesthetic aspects of textiles.

### **What will students learn about?**

Students learn about textiles through the study of different focus areas that recognise the following fields of textiles:

- Apparel
- Furnishings
- Costume
- Textile Arts
- Non-apparel

Project work enables students to discriminate in their choices of textiles for particular uses. The focus areas provide the context through which the three areas of study – Design, Properties and Performance of Textiles, Textiles and Society – are covered.

Design ideas and experiences are documented to communicate evidence of the processes of designing, producing and evaluating. Students learn about Work Health and Safety issues, and learn to select, use and manipulate appropriate materials, equipment and techniques to produce quality textile projects.

This subject would be really suitable for anyone seeking a career path in interior design, fashion and costume design, fabric design and areas of engineered textiles.

### **What will students learn to do?**

By examining the work of designers, students will learn to use the creative process to design textile items. Design ideas and experiences are documented and communicated and will show evidence of each of the stages of designing, producing and evaluating. Students will learn to select, use and manipulate appropriate materials, equipment and techniques to produce quality textile projects. Students will learn to identify the properties and performance criteria of textiles by deconstructing textile items and identify the influence of historical, cultural and contemporary perspectives on textile design, construction and use.

### **Stage 5 Credential**

Satisfactory completion of 100 or 200 hours of study in Physical Activity and Sports Studies will be recorded with a grade on the student's Stage 5 Credential (RoSA).

**Cost:** Year 9 \$40

Year 10 \$40

## **VISUAL ARTS**

Visual Arts is an elective course that can be studied for 200 hours.

### **Course Description**

Visual Arts provides opportunities for students to enjoy the making and studying of art. It builds an understanding of the role of art in all forms of media, both in the contemporary and historical world, and enables students to represent their ideas and interests in artworks. Visual Arts enables students to become informed about, understand and write about their contemporary world.

### **What will students learn about?**

Students learn about the pleasure and enjoyment of making different kinds of artworks in 2D, 3D and/or 4D forms. They learn to represent their ideas and interests with reference to contemporary trends and how artists' including painters, sculptors, architects, designers, photographers and ceramists, make artworks.

Students learn about how art is shaped by different beliefs, values and meanings by exploring artists and artworks from different times and places and relationships in the art world between the artist – artwork – world – audience. They also explore how their own lives and experiences can influence their art making and critical and historical studies.

### **What will students learn to do?**

Students learn to make artworks using a range of materials and techniques in 2D, 3D and 4D forms, including traditional and more contemporary forms, site-specific works, installations, video and digital media and other ICT forms, to build a body of work over time. They learn to develop their research skills, approaches to experimentation and how to make informed personal choices and judgements. They learn to record procedures and activities about their art making practice in their Visual Arts diary.

They learn to investigate and respond to a wide range of artists and artworks in art making, critical and historical studies. They also learn to interpret and explain the function of and relationships in the art world between the artist – artwork – world – audience to make and study artworks.

### **Course Requirements**

Students are required to produce a body of work and keep a Visual Arts diary.

### **Stage 5 Credential**

Satisfactory completion of 100 or 200 hours of study in Visual Arts will be recorded with a grade on the student's Stage 5 Credential (RoSA).

**Cost:** Year 9 \$60

Year 10 \$60