

Aviation High School

Year 8 into 9

Subject Selection Information

2022

INTRODUCTION

This year we will be providing Year 8 students the opportunity to study one elective subject each semester in Year 9, 2022. Students can then make their selections from 8am on Friday the 16th of October and it will be time stamped - meaning first in best dressed. This selection will be completed online through their OneSchool account. A08 will be open from 8am for those students who do not have access to a computer or iPad.

In Year 9, students will study English, Science and Mathematics plus one semester each of History and HPE. Students will also have the choice of two Electives of Study, one in each semester.

ACARA Core

| Line 1 | Line 2 | Line 3 | Line 4 | Line 5 | Line 6 (Sem 1) | Line 7 (Semester 2) |
|--------|---------|---------|------------|-----------------------|--|---|
| Maths | English | Science | Philosophy | History/ Geography | (Choose 1) Food Technology Drama Avionics Chinese Business | (Choose 1) Aeroskills Art Music Data Chinese Business |
| | | | HPE | | | |

Please note:

- The Australia Curriculum (AC) has 5 mandatory subjects – Maths, English, Science, Humanities and HPE. The AC recommends that students study Technology and The Arts as part of their junior curriculum up until the end of Year 10 and a combination of these form the elective offerings for Year 9 2022. However, it may be possible for students to pick from just Technology or The Arts depending on these electives. Please ensure these decisions are well considered before selection.

A MESSAGE TO PARENTS

Parents can help their children to be successful in gaining satisfaction – both personal and academic – from each experience at school.

You should:

- not assume responsibility yourself but rather, support your student to develop the personal responsibility for their own education
- ask your student questions about school.
- find out how students interpret what is going on at school.
- develop a relationship with your students teachers through phone or email.
- ensure that there is a suitable place to study in the home.
- ask to see your student's books, tasks and homework.

In short, show an interest in what is happening and help your student to develop habits of industry and responsibility with regard to his/her education.

GUIDELINES - KEEP YOUR OPTIONS OPEN

Many Year 8 students have thought about their future, but are still uncertain about courses or careers they would like to follow after they have finished school. It is wise, therefore, to try to keep all options open.

As an overall plan, it is suggested that students choose subjects:

- they enjoy
- in which they have already had some success
- which the student feels are related to careers which are of interest to them
- which will develop skills, knowledge and attitudes useful throughout life.

When investigating a subject to see if it is suitable, find out about the content (i.e. what topics are covered) and how it is taught and assessed. For example: does it mainly involve learning from a textbook? Are there any field trips, practical work, or experiments? How much assessment is based on exams compared to assignments, theory compared to practical work, written compared to oral work?

MAKING DECISIONS

It is important to remember that all students are individuals, each with particular needs and requirements that are quite different from those of other students. This means that it is unwise to either take or avoid a semester unit because:

- someone said that you will like or dislike it
- your friends are, or are not taking it
- you like or dislike the teacher
- "all the boys, or, all the girls take it" (all have equal value for males and females).

Students need to be honest about their abilities and realistic with their career aims.

Mathematics Department

Mathematics

Mandatory - Semesters One and Two

Mathematics focuses on the development of a student's knowledge and his/her application of this knowledge in a range of real life situations. Two important outcomes from this course are:

- Student mathematical knowledge to move towards independent living, and;
- Student development to move towards the final years of their Mathematics study in secondary education.

In Year 9, students study the Australian Curriculum for Mathematics and will be involved in a course focused on:

- Developing knowledge for good citizenship;
- Developing future knowledge for further study in Mathematics;
- Developing assessment literacy;
- Improving Literacy and Numeracy;

Pathways

Students studying Mathematics in Year 9 will have the opportunity to study either Mathematics or Mathematics Extension in Year 10. To be invited into Year 10 Extension Mathematics, students will need to have achieved at minimum a B at the end of Semester 2, Year 9. However, this does not guarantee entry as class size is limited. Careful consideration needs to be given to choice of Mathematics in Year 10 as this may influence future subject and possible tertiary choices.

It is recommended that future vocational or tertiary pathways are discussed and explored by parents and students so that appropriate subject pathways are known and remain open.

Structure

Year 9 Mathematics consist of the following topics:

| Topics | |
|---|---|
| Semester 1 | Semester 2 |
| Ratio and Proportion Linear relationships Measurement Pythagoras and Trigonometry Similarity and Congruency Non-linear relationship | Index and Scientific Notation Finance I Data Probability Finance II Time |

Assessment

A student's overall performance in Mathematics will be assessed against the achievement standard.

| Assessment | |
|--|--|
| Semester 1 | Semester 2 |
| Mid-semester test - 2 x 60 minutes Assignment - Assignment – 3 x 70 minute lessons End Semester Test | Mid-semester test - 2 x 60 minutes Assignment - Assignment – 3 x 70 minute lessons End Semester Test |

Science Department

Science

Mandatory - Semesters One and Two

In Year 9 Science, students build on the work covered in Year 8 and further improve their ability to work scientifically by exploring ideas and concepts in science, designing and performing experiments, interpreting data, predicting likely outcomes, conducting research and solving problems.

Students study the Australian Curriculum for Science and will be involved in a course focused on:

- Developing conceptual understanding of scientific theories;
- Developing critical thinking and investigative skills;
- Developing assessment literacy;
- Improving Literacy and Numeracy;

Pathways

Students studying Science in Year 9 will have the opportunity to study either Science or Science Extension in Year 10. To be invited into Year 10 Science Extension, students will need to have achieved at minimum a B at the end of Semester 2, Year 9. However, this does not guarantee entry as class size is limited. Careful consideration needs to be given to choice of Science in Year 10 as this may influence future subject and possible tertiary choices.

It is recommended that future vocational or tertiary pathways are discussed and explored by parents and students so that appropriate subject pathways are known and remain open.

Structure

| Topics | |
|--|---|
| Semester 1 Units | Semester 2 Units |
| <ul style="list-style-type: none">• Energy• Waves• Atoms and nuclear reactions• Plate Tectonics | <ul style="list-style-type: none">• Body systems• Homeostasis• Disease• Ecology• Chemical reactions |

Assessment

A student's overall performance in Science will be assessed against the achievement standard.

| Assessment | |
|--|---|
| Semester 1 Units | Semester 2 Units |
| <ul style="list-style-type: none">• Mid-Semester Exam - 2 x 60 minutes• Experimental Investigation - 2-3 weeks• End Semester Exam - 2 x 60 minutes | <ul style="list-style-type: none">• Experimental Investigation – 2-3 weeks• Extended Written Response – 3-4 weeks• End Semester Exam - 2 x 60 minutes |

English Department

English

Mandatory - Semesters One and Two

The Year 9 English Program balances and integrates the three interrelated strands of Language, Literature and Literacy. Together the strands focus on developing students' knowledge, understanding and skills in listening, reading, viewing, speaking, writing and creating. Learning in English builds on concepts, skills and processes developed in earlier years and teachers will revisit and strengthen these as needed.

In Year 9, students interact with peers, teachers, individuals, groups and community members in a range of face to-face and online/virtual environments. They experience learning in familiar and unfamiliar contexts, including local community, vocational and global contexts.

Pathways

A course of study in English promotes open-mindedness, imagination, critical awareness and intellectual flexibility - skills that prepare students for local and global citizenship, and for lifelong learning across a wide range of contexts.

Structure

Topics

Students engage with a variety of texts for enjoyment. They interpret, create, evaluate, discuss and perform a wide range of literary texts in which the primary purpose is aesthetic, as well as texts designed to inform and persuade. These include various types of media texts, including newspapers, film and digital texts, fiction, nonfiction, poetry, dramatic performances and multimodal texts, with themes and issues involving levels of abstraction, higher order reasoning and inter-textual references. Students develop a critical understanding of contemporary media and the differences between media texts.

The range of literary texts comprises Australian literature, including the oral narrative traditions of Aboriginal and Torres Strait Islander peoples, as well as the contemporary literature of these two cultural groups, and classic and contemporary world literature, including texts from and about Asia.

Students create a range of imaginative, informative and persuasive types of texts including narratives, procedures, performances, reports, discussions, literary analyses, transformations of texts and reviews.

Assessment

Assessment is continuous over the two semesters of Year 9

Students will complete written and spoken tasks with some tasks written under test conditions

Humanities Department

History/Geography

Mandatory - One Semester

History is the mandatory Social Science subject that all Year 9 students must complete, either in semester 1 or 2. This subject follows the Australian Curriculum: History and builds on the historical knowledge and understandings, and historical skills learnt in Year 8 History.

The Year 9 History curriculum provides a study of the history of the making of the modern world from 1750 to 1918. It was a period of industrialisation and rapid change in the ways people lived, worked and thought. It was an era of nationalism and imperialism, and the colonisation of Australia was part of the expansion of European power. The period culminated in World War I 1914 - 1918, the 'war to end all wars'.

A framework for developing students' historical knowledge, understanding and skills is provided by inquiry questions through the use and interpretation of sources.

Key Inquiry Questions

- How did new ideas and technological developments contribute to change in this period?
- What were the origin, development, significance and long-term impact of imperialism in this period?
- What was the significance of World War I?
- What were the changing features of the movements of people from 1750 to 1918?

Pathways

History develops the fundamental skills of reading, writing, listening, note-taking and recall. These underpin the more advanced skills of analysing, synthesising and critical evaluation and reflection. History also gives students the skills to complete Years 11 and 12 Applied subjects such as Ancient History, Modern History, and Philosophy & Reason.

Structure

Topics

- The Industrial Revolution (1750 - 1914)
- Making a Nation (1750 - 1918)
- World War 1 (1914 – 1918)

Assessment

May include:

- Research Multimodal Presentation
- Response to Historical Stimulus Test
- Extended Analytical Essay Test

Philosophy

Mandatory - One Semester

Philosophy and Reason combines the discipline of philosophy with the associated skills of critical reasoning. The study of philosophy allows you to recognise the relevance of various philosophies to different political, ethical, religious and scientific positions. It also allows you to realise that decisions in these areas are the result of the acceptance of certain ideas and specific modes of reasoning. In addition, critical reasoning and logic provide knowledge, skills and understanding so students are able to engage with, examine and analyse classical and contemporary ideas and issues. The study of philosophy enables you to make rational arguments, espouse viewpoints and engage in informed discourse.

Pathways

Students focus on the following skills with possible pathways into Year 11 and 12 Philosophy and Reason; Modern History; Ancient History and the Sciences.

- A method of learning, initiated by questions or problems
- Personal construction of a student's own knowledge, i.e. knowledge that is new to the student
- An active approach to learning, where students have the central role
- The teacher acting as a facilitator
- Developing self-directed learning over time, as students assume increasing responsibility for their learning.

Structure

Topics

- Fundamentals of Reason
- Reason in Philosophy
- Moral Philosophy and Schools of Thought
- Social and Political Philosophy.

Assessment

May include:

- Examination — extended response
- Extended response — analytical essay

Technology Department

Food Technology

Elective - One Semester

Students will be able to explain how people working in food design, food technology, and nutrition or science occupations consider factors that impact on design decisions and the technologies used to produce food products, services and environments. When producing designed solutions for identified needs or opportunities, students evaluate the features of technologies and their appropriateness for a food product. Students will create designed food product solutions based on a critical evaluation of needs or opportunities. Students communicate and document projects through a portfolio, including marketing for a range of audiences. They independently and collaboratively apply sequenced production and management plans when producing food designed solutions. They select and use appropriate technologies skilfully and safely to produce high quality designed solutions suitable for the intended purpose.

Pathways

The study of Food and Fibre in Year 9 and/or Year 10 is highly desirable prior to enrolment in Years 11 and 12 Food and Nutrition.

Structure

Topics

The units covered in this subject include:

- Making Nutritional Food Choices
- International Inspiration

Throughout these units, students will:

- Critically analyse factors, including social, ethical and sustainability considerations, that impact on designed solutions for global preferred futures and the complex design and production processes involved
- Investigate and make judgments on the ethical and sustainable production and marketing of food
- Investigate and make judgments on how the principles of food safety, preservation, preparation, presentation and sensory perceptions influence the creation of food solutions for healthy eating.

Assessment

Assessment tasks in Food Specialisation may include:

Through a portfolio of work and practical application students will demonstrate evidence and design ideas over the course of the unit in relation to the following assessable elements:

- Technologies and society
- Technologies contexts
- Investigating
- Generating
- Producing.

ADDITIONAL INFORMATION

This course allows for the development of food and nutrition knowledge and practical application of the science of food. Students may be required to bring in ingredients for their final practical.

Data/P-Tech

Elective - Semester Two

Data is simply information. While data comes in many forms, all industries are now collecting enormous amounts of numerical data (numbers) due to rapid growth in the number of digital devices available. But just because you have the data, it doesn't mean you know what it all means or how it could be helpful. Employers want people who can use data effectively to help improve how things are done. Our Year 9 Data subject teaches technical skills such as the collection, processing and interpretation of data, as well as soft skills including collaboration and presentation of recommendations that resonate with a variety of audiences. Developing this combination of technical and soft skills provides an opportunity for students to become high-demand employees across all industries - globally.

The Year 9 Data course will focus on:

- Developing the mathematical skills to analyse large sets of data;
- Developing programming skills to process and summarise data;
- Creating visual representations of data using computer software in order to make trends/patterns more obvious;
- Collaborating with industries to make sense of real-world problems and work towards solutions; and
- Clearly communicating findings and recommendations to diverse audiences.

Pathways

Yr 9 Data subject partially prepares students for several Yr 11 and 12 ATAR subjects including the maths and science subjects as well as Geography, Digital Solutions and Business.

The skills students develop in Yr 9 Data are used by Data Scientists, Business Analysts, Statisticians, Computer Engineers, Business Consultants and many more. Some, but not all, jobs require a university degree.

It is recommended that future vocational or tertiary pathways are discussed and explored by parents and students so that appropriate subject pathways are known and remain open.

Structure

Year 9 Data consists of the following topics:

Semester 2

Probability
Bivariate data analysis including regression
Finance
Data wrangling
Hypothesis testing
Programming/coding
Data visualisation
Collaboration
Communication and presentation

Assessment

A student's overall performance in Yr 9 Data will be assessed against the achievement standard across relevant aspects of the Mathematics, Science, Digital Solutions and Geography curriculum.

Assessment

Semester 2

Project 1 – Presentation – Social problem – Road traffic accidents

Project 2 - Report – Airline problem – Cost of fuel

Project 3 – Presentation – Airport problem – Car parking

ELECTIVES

Aeroskills Technology

COURSE OVERVIEW

Technology is a broad field of study that draws from a range of disciplines and community activities including engineering, manufacturing, hospitality, and information and communication. Aeroskills is the study of technology in the context of the Aviation Industry. Students will explore the design of products, processes and services to meet human needs and wants, capitalise on opportunities and extend human capabilities. Technological products, processes and services have impacts and consequences on individuals, local and global communities, and environments.

The purpose of technology education in schools is to enable students to use technology successfully, responsibly and creatively. By working technologically, students develop knowledge and understanding and ways of working to expand their capabilities as confident, critical and creative designers and users of technology.

Students are challenged to extend their technological literacy when they:

- design technology solutions (products, processes and services)
- use resources (information, materials and systems)
- manage technological processes (efficiently, appropriately and safely)
- evaluate the appropriateness of solutions (aesthetic, cultural, economic, environmental, ethical, functional and social).
- Students build knowledge and understanding that enables them to develop solutions to design challenges by applying their knowledge of resources, and of relevant techniques and tools, with appropriate consideration of the impacts and consequences of their solutions. The knowledge and understanding component of Year 10 Technology is structured around three organisers:
 - products, processes and services
 - techniques and tools
 - impacts and consequences.

ASSESSMENT SUMMARY

Students demonstrate evidence of their learning over time in relation to the following assessable elements:

- knowledge and understanding
- investigating and designing
- producing
- evaluating
- reflecting.

This evidence is collected through in-class tests and design and project work evaluations.

ELECTIVES

Avionics

COURSE OVERVIEW

Avionics consists of 2 units of study in the aerospace domain:

Basic Aircraft Knowledge

A basic understanding of aerodynamics and flight is essential for any person engaged in the aerospace and aviation industries. Aircraft are complex machines with many interconnected and interdependent systems. Students will learn the basics of flight physics and aerodynamics, and aircraft structure. This will include recognising the various components and understanding how they are all interrelated to make flight not only possible, but also safe.

Aerospace Business and Data

Knowledge of the business models of aviation and aerospace is necessary for any person engaged in the industry. Aviation and aerospace are multi-billion dollar global industries involving businesses that vary in size from multinational corporations to small local concerns. These highly competitive industries are influenced by governments and their agencies, world events, societal conditions and the global economy. In order to operate successfully, businesses must face the challenge of dealing with these influences and manage their human resources while remaining profitable. Students will learn to use the Airline Online software package to develop, run and maintain an airline in today's market. This includes:

- selecting and acquiring appropriate aircraft
- managing staff
- advertising
- maintenance of aircraft fleet
- selecting routes
- price setting and service levels

Students will learn to read and understand a range of available data to manage their airline.

ASSESSMENT SUMMARY

Basic Aircraft Knowledge – End of term exam

Aerospace Business and Data – Portfolio of work and practical activities within Airline Online.

Elective - Semester One or Two

In year 9, learning in Business explains the importance of managing financial risks and rewards, analysing the different strategies that may be used. It involves students making and responding independently and in small groups, and with their teacher and peers.

Throughout the semester, students generate alternative responses to issues and use cost-benefit analysis and appropriate criteria to propose courses of action, as they apply economics and business knowledge, skills and concepts.

Pathways

This course is beneficial for students who may be considering further studies in Business, Accounting or Economics in Year 10 or in Senior.

Structure

Topics

The unit set for the semester is Business and the Economy for the first term and Personal finance for the second term. Students will explore how businesses interact in the Australian and world economies and learn how to manage their own personal finances as well as those of a business. They will also complete tasks such as creating a business report, making a budget and risk assessments.

Assessment

Assessment tasks in Music include:

- **Short response and multiple choice exam**
- **Personal budget report**
- **Formative quizzes and written activities**

ARTS Department

Visual Art

Elective - One Semester

Structure

Topics

Unit Topic; "I am; Exploring Self-Identity in the Visual Arts". This subject offers a unique way for students to communicate and connect with their world using critical and creative thinking. Students learn to evaluate the artistic intentions in artworks they make and view and evaluate artworks/displays from different cultures, times and places. Students will learn to analyse connections between visual conventions, practices and viewpoints that represent their own and others' ideas. This is a practical subject requiring students to manipulate materials, techniques and processes to develop and refine techniques and processes to represent ideas and subject matter in their artworks.

Pathways

This course allows for the development of individual art skills and interests. *Students who intend to undertake in the Senior Visual Art Course in Years 11 and 12 should preferably have completed Year 9 and Year 10 Visual Art.*

Assessment

Assessment is continuous over the two semesters of Year 9

Students are assessed on making and responding to art. Assessment tasks will take the form of written responses (assignments and exam) and the submission of art pieces.

ADDITIONAL INFORMATION

This course allows for the development of individual art skills and interests. *Students who intend to undertake in the Senior Visual Art Course in Years 11 and 12 should preferably have completed Year 9 and Year 10 Visual Art.*

Drama

Elective - One Semester

In Drama, students develop their understanding and use of role, character, relationships and situation and study the use of voice and movement to sustain belief in character. They learn to maintain focus and manipulate space and time, language, ideas and dramatic action. They also experiment with mood and atmosphere, use devices such as contrast, juxtaposition and dramatic symbol and modify production elements to suit different audiences. Students explore meaning and interpretation, forms and elements, and social, cultural and historical influences of drama as they make and respond to drama.

Structure

Topics

Students will study theory and practical aspects in units of work on:

- Theatre Sports
- Realism in script
- Real life on stage

Units include skills in improvisation, script analysis and scripted performance.

*Units of study may change and will be based on student numbers, available teaching spaces and the interest/expertise **of teacher/students**

Assessment

Assessment is continuous over the two semesters of Year 9

For assessment, 2 making pieces consisting of group improvisation and rehearsed scenes and one written responding tasks.

HOME STUDY REQUIREMENTS

This subject requires students to complete home study task. This includes revising lesson content, completing class tasks and preparing for assessment and potentially rehearsals. Students will be required to work on their performance and written tasks in their own time. Students will have home study every week.

Elective - Semester One

In year 9, learning in Music builds on the experience of the previous years. It involves students making and responding to music independently and in small groups, and with their teachers and communities. They explore music as an art form through listening, composing and performing.

Throughout the semester, students continue to develop their aural skills as they build on their understanding and use of the elements of music. They also build on their understanding of their role within an ensemble as they control tone and volume in a range of styles using instrumental and vocal techniques. In performance, they extend technical and expressive skills from the previous year.

Pathways

This course is beneficial for students who may be considering further studies in music in Year 10 or in Years 11 and 12.

It is strongly recommended that students have completed at least one term of music in year 8 before enrolling in year 9.

Structure

Topics

The unit set for the semester is called Pop Rocks:

Students will explore popular music styles from the 1950s until now and learn how music is created with different instruments and technologies throughout time to form new styles and genres. They will also complete tasks such as creating their own musical composition, performing in a small ensemble and analysing music in detail.

Assessment

Assessment tasks in Music include:

- **Music composition**
- **Instrumental performance assessment**
- **Music analysis exam**

LOTE Department

Chinese

Elective – Semester One or Two

Chinese is a course of study derived from LOTE section in the Australian Curriculum which enables all students to engage in learning a language in addition to English.

In year 9, student will be focusing on the 2 criteria of understanding and communicating of Chinese, as well as the 4 language skills of listening, reading, writing and speaking.

The year 9 language program develops students to use spoken and written Chinese in familiar and unfamiliar situations. They will learn to introduce, exchange information, ideas and opinions and enquire into the experiences and opinions of others. Students will also be learning about Chinese culture and reflect on how their own cultural experience impacts on interactions with Chinese speakers.

Pathways

This course is beneficial for students who may be considering further studies in Chinese in Year 10 or in Years 11 and 12. Students who may be considering undertaking business or hospitality in the future will also benefit from studying this subject. It is strongly recommended that students have completed Chinese in either year 7 or 8 before enrolling in year 9.

Structure

Topics

There are 4 topics will be two of the following:

- 1: All about me
- 2: Generation gap
- 3: Travelling and Shopping
- 4: Chinese and Australian Youth culture

Assessment

Assessment tasks in Chinese include:

- **Listening, Reading, Writing, Speaking exam**
- **Multimedia assessment**