

Year 9 Pathways

2017



**AMBROSE TREACY
COLLEGE**

From the Principal

Dear Parents, Guardians of Year 8 students

As this term draws to an end, important choices have to be made with regard to your son's subjects. As you are aware, until the end of Year 8 your son has taken all of the subjects being offered. From next year there is the opportunity to choose specific areas of study. The teaching staff of the College has prepared this booklet to assist you and your son in making the most appropriate selections.

The decisions made now help to map out an academic path for the future. Important criteria for choice of subjects are:-

- Your son's ability, as indicated in his studies so far
- His areas of interest
- His overall education
- His long term goals
- The objective of a broad and balanced education

It is important that the students enter Years 9 and 10 with the determination to do their best to develop their potential in their chosen fields of endeavour. Before a student can proceed into Year 11, he must show from his Year 10 performance that he is capable of handling the subjects offered. There will be a minimum standard of achievement necessary at this level.

In addition to being fully committed to his studies, a student is expected to develop his talents, his character and himself as a unique human being.

Some ways in which this is shown include:

- Full involvement in the College's Religious Education program
- Participation in the College's service program
- Participation in the co-curricular program – including academic, cultural and sporting opportunities
- Development of those traits of character which enable him to be a well-respected member of the Ambrose Treacy College community
- Exemplifying in his life at school and in society behaviour befitting an ATC Gentleman
- Knowledge of himself and confidence in himself as a person who is gifted in many ways.

Please find in this Handbook important information about subject offerings for 2017 and advice around subject selection. This will be unpacked further at the *Pathway Information Evening* on 4th August from 6.30pm. Note online subject selection preferences are due in by 3pm on Thursday 11th August.

We look forward to working further with you in your son's education.

Yours sincerely



Mr Michael Senior
Principal

Table of Contents

INTRODUCTION AND GUIDELINES	1
SUBJECT SELECTION ONLINE PROCESS	3
Table 2 Year 11 and 12 Pre-Requisites.....	5
CORE SUBJECT OFFERINGS.....	6
English: Head of Department: Mrs Lisa Holohan.....	7
Health and Physical Education: Co-ordinator: Mr Tim Walker	8
History: Head of Department: Mrs Lisa Holohan.....	9
Mathematics: Head of Department: Mr Mark Watson	10
Religious Education: Co-ordinator: Mrs Sara Condon	11
Science: Head of Department: Mr Mark Watson	12
ELECTIVE SUBJECT OFFERINGS.....	13
Business and Economics: Co-ordinator: Mr Patrick Howell.....	14
Curriculum Support: Head of Department: Mrs Deb Butler	15
Design and Industrial Technology: Co-ordinator: Mr Cam McConnell	16
Digital Technology: Head of Department: Mr Mark Watson.....	17
Drama: Head of Department: Mr Jason Goopy	18
Engineering: Head of Department: Mr Mark Watson	19
Food Technology: Co-ordinator: Mrs Jill Rau/Miss Kath Little	20
Geography: Head of Department: Mrs Lisa Holohan	21
Japanese: Teacher: Mr Paul Ramsey/Mrs Jill Rau.....	22
Justice and Peace Studies: Head of Department: Mrs Lisa Holohan	23
Music: Head of Department: Mr Jason Goopy	24
Visual Art: Head of Department: Mr Jason Goopy	25

INTRODUCTION AND GUIDELINES

Some Considerations for Choosing Subjects for Year 9

Taking the time to think carefully about your selection of subjects for Year 9 is important because your choice may affect:

- How you feel about school
- Your success at school
- Your future options and pathway preparedness
- The objective of a broad and balanced education.

Overall Plan

A good overall plan is to choose subjects:

- In which you are interested
- That use your strengths and abilities
- That keep your options open
- That develop useful life and study skills
- That assist you in being prepared for possible future pathways

Guidelines

Keep your options open

It is important to select subjects which keep your options open because:

- At this stage you may not know what you want to do when you finish school, or
- The career ideas you have now might change as you grow older

To help you keep your options open, you are required to study the following core subjects:

- English
- Religious Education
- Mathematics
- Science
- History
- Health and Physical Education
- Formation

You will need to choose four other subjects from a range of electives. You will study two electives in one Semester and two in the other. Electives are studied for a period of 6 months, 3 periods per week.

Consider your learning style and strengths

When selecting your elective subjects, it is helpful to think about your preferred learning style. Do you learn best by looking and listening or are you more of a hands-on learner? It is also important to consider your strengths and abilities. Your past performance at school should give you some idea about these. Are your strengths in:

- Mathematics?
- Science Subjects?
- Languages?
- Creative subjects / Hands on subjects e.g. Music, Visual Arts, Drama, Digital Technology, Design and Industrial Technology?
- Humanities eg Geography, Justice and Peace Studies, Business and Economics?

If you choose your elective subjects without consideration of your learning style or your strengths and abilities, you might be disappointed with your selection.

Think about your future options

It is also helpful to have some ideas about the subjects you might like to study in Years 11 and 12. The Year 9 and 10 core subjects provide a good foundation for most senior subjects and more future career options. However, some senior subjects are likely to have Year 9 and 10 prerequisites. For example, if you want to study Geography in Years 11 and 12, it is highly recommended that you do Geography in Years 9 and 10. See Table 1 for required and recommended subjects.

You might already have some ideas about the type of occupation you might like to have in the future. These ideas can guide you in the selection of your elective subjects. For example, if you think you might like to be a music teacher, then selecting Music as a subject in Years 9 and 10 would be wise.

Find out about the Year 9 and 10 subjects offered at Ambrose Treacy College

Even though you have studied a wide range of subjects in Year 8, it is important to find out as much as possible about the subjects offered in Years 9 and 10. Some of the subjects will be new. Others, with the same name as in Year 8, may be a little different. To find out about these subjects:

- Read the subject descriptions in this booklet
- Talk to Heads of Faculties, Subject Coordinators and teachers of particular subjects
- Listen carefully at the subject selection evening

When investigating a subject, find out about the content (ie what topics are covered in the subject) and how the subject is taught and assessed. For example:

- Does the subject 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?
- What is the amount of theory compared to practical work, written compared to oral work?

Make a decision about a combination of subjects that suits you

You are an individual, and your particular needs and requirements in subject selection may be quite different from those of other students. Therefore; **do not** select a subject just because:

- Someone told you that you will like or dislike it
- Your friends or siblings are or are not taking it
- You like or dislike the teachers you predict might be teaching it.

Be honest about your abilities and realistic with your future goals. There is little to be gained by continuing with or taking advanced levels of subjects that have proved very difficult even after you have put in your very best effort.

Also, if your career aims require the study of certain subjects, do you have the ability and determination to work hard enough to achieve the necessary results in those subjects? If you do not like the subject and achieve poorly in it, then it is unrealistic to study it for a prolonged time. Education isn't just about a qualification. Ensure you enjoy what you choose as much as possible.

Be prepared to ask for help

If you need more help, ask for it. Talk to your parents, teachers, tutor and counsellors. There are many people at ATC who will gladly help you.

Changing Subjects

Students may have the ability to change elective subjects at the conclusion of a semester ONLY. This will be dependent on availability of spaces in classes. Changing a subject mid semester puts you at a potential disadvantage.

SUBJECT SELECTION ONLINE PROCESS

This year, the subject selection process will be completed online using web Preferences.

SELECTION INSTRUCTIONS

Compulsory Core

All students in Year 8 will study the core subjects of English, Formation, Health and Physical Education, History, Mathematics, Religious Education and Science. The National Curriculum indicates that History is an entitlement for all students in Year 9. Ambrose Treacy College will allow students and parents/caregivers of students with a diagnosed special need and IEP, to elect to do Curriculum Support instead of History. Typically, these students will have also been in Curriculum Support in Year 8 and demonstrated a need for this provision.

Electives

In addition to the core subjects above, students must select **4 electives**. Each elective will be for 1 semester - except Japanese that will be conducted for the whole year (ie 2 selections). If a subject is important for you, select it before any less important subjects.

Classes

The number of classes to be run in a subject in 2017 will depend upon the number of students who select that subject in their preferences. Due to the combinations of subjects selected by the cohort of students, it may be necessary to select the student's reserve subject.

To access the online subject selection process go to <https://www.selectmysubjects.com.au>. Please follow the steps below.

1 Internet Access	You will need a computer with an internet connection and a printer. We recommend using Firefox, you may also use Google Chrome or IE 6.0 and above.
2 Log In	<p style="text-align: center;">Click here to open Web Preferences</p> <p style="text-align: center;">Student Access Code:</p> <p style="text-align: center;">Password:</p>
3 Home Page	To view your subject information click " View Subject Details " at the top right of the screen. To select/change your preferences, click " Add New Preferences " at the top right of the screen.

<p style="text-align: center;"><u>4</u> Preference Selection</p>	<p>Select your subjects from the drop down lists, you have 30 minutes to do so.</p> <p>Select History (National Curriculum entitlement) or option of Curriculum Support if you have studied it in Year 8.</p> <p>Select 4 electives.</p> <p>Once complete, click "Proceed".</p> <p>Note: You are not finished yet.</p>
<p style="text-align: center;"><u>5</u> Preference Validation</p>	<p>If you are happy with your preferences click "Submit Valid Preferences" which will open your "Preference Receipt".</p> <p>Or if you would like to make changes to your preferences click "Cancel" and this will take you back to the Preference Selection page.</p>
<p style="text-align: center;"><u>6</u> Preference Receipt</p>	<p>You can print your "Preference Receipt" by clicking "Open Print View" and clicking "Print Receipt".</p> <p>To continue click "Return to Home Page".</p> <p>If you want to change your preferences, repeat the process by clicking "Add New Preferences".</p> <p>You have 1 opportunity to change your selection so select carefully. Any issues with this please see Mr Gardiner.</p> <p>Otherwise exit by clicking "Log Out". End of steps.</p>

Due Date

Subject selection preferences should be entered no later than Thursday 11th August at 3pm.

Table 2 Year 11 and 12 Pre-Requisites

In selecting electives in Year 9 and 10, students may wish to think forward to possible prerequisites for Years 11 and 12.

Senior Subjects	Requirements	Recommendations
Accounting	C in Accounting strands, Year 10 Accounting and Economics	C in Year 10 Maths
Biology	C in Science	C in English
Chemistry	B in Science and C in Mathematics	C in English
Drama	C in English	C in Drama. Ability to work independently and in groups.
Economics	C in English	Essay, Discussion and Research Skills
Construction (Cert I)/and Manufacturing Studies		Ability to work independently and progressively, including in work placement building site. C in Tech Studies or completed Industrial Skills – Year 10.
Geography	C in English or English Communication	Research Skills
Information Processing and Technology	C+ in Advanced Mathematics – Year 10 C in Information Technology – Year 10	
Japanese	C in Japanese	
Pre-Vocational Mathematics		
Mathematics A		C in General Mathematics – Year 10 Students interested in a trade pathway should consider Maths A as a starting point. Pre-Vocational Mathematics is below the trade entry requirement.
Mathematics B	C+ in Year 10 Advanced Maths Mathematics	
Mathematics C	B in Year 10 Advanced Maths Mathematics	Advisable that Mathematics B is also being studied
Modern History	C in English and History Year 10	
Music	C+ in Music or Grade 4 AMEB (Practical exams)	
Physical Education		C in Health & Physical Education – Year 10
Physics	B in Science and a C+ in Advanced Mathematics	C in English
Recreation Studies (Cert III)		C Health & Physical Education – Year 10
Tech Studies	C in Tech Studies – Year 10	
Visual Art	C in Visual Art. If no Visual Art studied an interview and Folio is required.	C in English

CORE SUBJECT OFFERINGS

English:

Head of Department: Mrs Lisa Holohan

Why study English?

English is part of the mandatory National Curriculum developed by the Australian government. In 2017, all students will follow the same English programs. These programs have been developed to encompass the four broad elements of the Australian Curriculum English Syllabus: Reading, Writing, Speaking and Listening, Viewing and Representing. The programs are sequential and have mandatory components that are assessable.

English in Years 9 to 10 is both challenging and enjoyable. It develops skills to enable students to experiment with ideas and expression, to become active, independent learners, to work with each other and to reflect on learning. Throughout the Year 9 and 10 program runs the thread of reading in the studies of fiction, non-fiction, poetry, film, drama and multimodal texts.

What is studied in Year 9?

The study of literary texts that support and extend students in Years 9 and 10 as independent readers are drawn from a range of genres and involve complex, challenging and unpredictable plot sequences.

These texts explore themes of human experience and cultural significance, interpersonal relationships, and ethical and global dilemmas within real-world and fictional settings and represent a variety of perspectives.

In Years 9 and 10 text structures are more complex including chapters, headings and subheadings, tables of contents, indexes and glossaries. Language features include successive complex sentences with embedded clauses, a high proportion of unfamiliar and technical vocabulary, figurative and rhetorical language, and dense information supported by various types of graphics presented in visual form.

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.

Year 9 units of study are organised as follows:

- Term 1: Being Persuasive on Social Issues / Mystery and Detective Stories
- Term 2: A Need to belong - Novel Study
- Term 3: Representations of Australians – Film Study
- Term 4: Peace and War – Poetry Study

How are students assessed?

In Year 9 English, students are assessed in the following modes: oral, written and multimodal.

Assessment will be completed in a range of conditions:

- Open conditions: prior notice of question, access to drafting advice and consultations;
- Supervised conditions: examination style of assessment, time, prior notice of topic and/or access to resources are controlled.

Employment opportunities and pathways

Most university courses and career pathways require a competent level of spoken and written English. Careers which focus on a more controlled and finessed use of the language: teaching, research, journalism and new media, public relations, event management, advertising, business, law, medical fields, management, human resources, publishing and editing.

Health and Physical Education:

Co-ordinator: Mr Tim Walker

Why study Health and Physical Education (H.P.E)?

H.P.E teaches students how to enhance their own and others' health, safety, wellbeing and physical activity participation in varied and changing contexts. In H.P.E Education, students develop the knowledge, understanding and skills to strengthen their sense of self, and build and manage satisfying relationships. The curriculum helps them to be resilient, and to make decisions and take actions to promote their health, safety and physical activity participation. As students mature, they develop and use critical inquiry skills to research and analyse the knowledge of the field and to understand the influences on their own and others' health, safety and wellbeing. They also learn to use resources for the benefit of themselves and for the communities with which they identify and to which they belong.

Integral to H.P.E is the acquisition of movement skills, concepts and strategies to enable students to confidently, competently and creatively participate in a range of physical activities. As a foundation for lifelong physical activity participation and enhanced performance, students develop proficiency in movement skills, physical activities and movement concepts and acquire an understanding of the science behind how the body moves. In doing so, they develop an appreciation of the significance of physical activity, outdoor recreation and sport both in Australian society and globally. Movement is a powerful medium for learning, through which students can acquire, practise and refine personal, behavioural, social and cognitive skills.

What is studied in Year 9?

The Health & Physical Education curriculum is divided into two strands – Personal, social and community health and Movement and physical activity. In year 9, the curriculum is comprised of one classroom lesson a week, with one lesson allocated as a practical lesson. As such, units of work are organised in pairs.

- Term 1: Water Safety & Lifesaving Skills
- Term 2: Substance Abuse & Gaelic Football
- Term 3: Sport and National Identity & Track and Field
- Term 4: Mental Health & Volleyball

How are students assessed?

Students are assessed across both theoretical and practical domains. Assessment emphasises the depth of conceptual understanding, the sophistication of skills and the ability to apply essential knowledge expected of students. Each unit requires students to complete one assessment task based on theory learnt in the classroom. The mode of assessment varies and includes:

- Short and extended response exam
- Research Report
- Multimodal presentation
- Health Promotion Project

Students are also assessed in the practical domain. This mode of assessment is on-going and occurs throughout the course of the term.

Employment opportunities and pathways

The study of H.P.E can lead to university study in Bachelor's degrees in Human Movements, as well as Certificate courses in Sport and Recreation and Fitness.

H.P.E can establish a basis for employment in the fields of: Environmental Health, Exercise Science, Health Administration, Naturopathy, Fitness Instruction, Nursing/Physiotherapy, Nutrition and Dietetics and Education.

History:

Head of Department: Mrs Lisa Holohan

Why study History?

The study of History up until the end of Year 10, is part of the mandatory National Curriculum developed by the Australian government. History provides students with a context which explains how the world came to be the way it is today. Students of History develop a strong understanding of significant concepts, people and events that have shaped national and global progress. Further, they develop an understanding of the extent to which the story of the past is 'constructed' through competing perspectives. Through the study of History, students are encouraged to develop civic consciousness and to reflect on how we can learn from the mistakes of the past.

In addition to learning about the past, students of History develop important skills which will help them in the Senior phase of learning, and throughout life. These skills include: developing arguments, defending arguments with evidence, analysing the strengths and limitations of evidence, critical analysis, organising extended written text, speech making and research.

What is studied in Year 9?

The Making of the Modern World

The Year 9 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'.

The content provides opportunities to develop historical understanding through key concepts, including evidence, continuity and change, cause and effect, perspectives, empathy, significance and contestability. These concepts may be investigated within a particular historical context to facilitate an understanding of the past and to provide a focus for historical inquiries.

Units of study are organised as follows:

- Term 1: The Industrial Revolution – Causes and Implications
- Term 2: Egalitarianism in Australia
- Term 3: World War One – Causes and Implications
- Term 4: World War One – The Anzac Mythology: Truth or Fiction?

How are students assessed?

Students will complete a range of assessment tasks including:

- Content and Short Answer Response to Stimulus Tests
- Extended Essays in Response to Stimulus Tests
- Written and Oral Research Assignments

Employment opportunities and pathways

History can establish a basis for university Bachelor's degrees in Arts, Journalism, Political Science, Classics and International Relations.

Employment fields related to History include: research, international relations, public service: department of defence and foreign affairs, archaeology, teaching, journalism, law, business management and international diplomacy.

Mathematics:

Head of Department: Mr Mark Watson

Why study Mathematics?

Learning mathematics creates opportunities for and enriches the lives of all Australians. Mathematics in middle school provides students with essential mathematical skills and knowledge in Number and Algebra, Measurement and Geometry, and Statistics and Probability. It develops the numeracy capabilities that all students need in their personal, work and civic life, and provides the fundamentals on which mathematical specialties and professional applications of mathematics are built.

Mathematical ideas have evolved across all cultures over thousands of years, and are constantly developing. Digital technologies are facilitating this expansion of ideas and providing access to new tools for continuing mathematical exploration and invention. The curriculum focuses on developing increasingly sophisticated and refined mathematical understanding, fluency, logical reasoning, analytical thought and problem-solving skills. These capabilities enable students to respond to familiar and unfamiliar situations by employing mathematical strategies to make informed decisions and solve problems efficiently.

Mathematics is composed of multiple but interrelated and interdependent concepts and systems which students apply beyond the mathematics classroom. In science, for example, understanding sources of error and their impact on the confidence of conclusions is vital, as is the use of mathematical models in other disciplines. In geography, interpretation of data underpins the study of human populations and their physical environments; in history, students need to be able to imagine timelines and time frames to reconcile related events; and in English, deriving quantitative and spatial information is an important aspect of making meaning of texts.

What is studied in Year 9?

Students in Year 9 continue their study of Number and Algebra, Measurement and Geometry, and Statistics and Probability in the following mathematical contexts:

- Term 1 The best job in the world! – How do you live within your means and avoid being ripped off? Was Pythagoras a thief? – How do I determine whether an angle is a right angle?
- Term 2 Game theory – How does Nash equilibria help to ensure a win? Inside out: Mathematics in animation - How does maths enable games and movies look so good?
- Term 3 Slip 'n' slide – How steep can a road be before cars and trucks are no longer able to drive it safely? CAT scans – How is trigonometry used to locate the position of tumours?
- Term 4 Predicting Risk – What caused the global financial crisis of 2008? The mathematics of fear – What mathematical relationships exist in a rollercoaster?

How are students assessed?

Students are assessed in the criteria of 'Communication', 'Knowledge and Fluency' and 'Problem Solving and Reasoning' using a variety of assessment techniques including:

- Modelling and Problem Solving tasks
- Mathematical Investigations
- Supervised assessments - Written test, Response to stimulus

Employment opportunities and pathways

Mathematics is a recommended precursor to tertiary studies in subjects with high demand in mathematics, especially in the areas of science, medicine, mining and engineering, information technology, mathematics, finance, and business and economics. Mathematics is also a precursor to further study and training in the technical trades such as toolmaking, sheet-metal working, fitting and turning, carpentry and plumbing, auto mechanics, tourism and hospitality, and administrative and managerial employment in a wide range of industries.

Religious Education:

Co-ordinator: Mrs Sara Condon

Why study Religious Education?

As a Catholic school in the Edmund Rice tradition, we are called to be authentic to the Charter of Edmund Rice Education. We aspire to be faithful to the four touchstones of The Charter: Liberating Education; Gospel Spirituality; Inclusive Community; Justice and Solidarity. At Ambrose Treacy College Religious Education is a core subject in Year 9.

Religious Education provides for a study of religion in our contemporary culture. This study of religions and religious issues provides students with opportunities for clarifying their own beliefs and values. It aims at helping students acquire knowledge, understanding and affective appreciation of the Christian religious tradition in the context of the modern world. Special emphasis is given to areas of study that are of particular relevance to developing adolescents.

What is studied in Year 9?

Students develop their understanding of the experience of sin throughout human history and some ways in which the Church responded to the presence of good and evil in the past (c.1750 CE - 1918 CE). They learn about the priestly, prophetic and kingly work of Jesus Christ and ways in which believers live their Christian vocation by participation in this work. They consider sources of inspiration, strength and guidance for believers today, including Catholic social teaching, the three forms of penance (prayer, fasting and almsgiving), Scripture, celebration of the Sacraments of Healing (Penance and Anointing of the Sick), and personal and communal prayer experiences. They are introduced to two forms of Biblical criticism, namely form criticism and narrative criticism, and develop the ability to apply these to help their understanding, interpretation and use of a range of Biblical texts. They continue to develop their understanding of prayer in the Christian tradition through an exploration of the writings of Christian spiritual fathers and mothers, prayers for forgiveness and healing, Christian Meditation and meditative prayer practices, including praying with labyrinths.

Units of study are organised as follows:

- Term 1: Monotheistic Religion (Islam, Christianity, Judaism)
- Term 2: Understanding Biblical Texts
- Term 3: Catholic Social Teachings and Me
- Term 4: Foundational beliefs of Christianity

How are students assessed?

Students will complete a range of assessment tasks including:

- Content and Short Answer Response Tests
- Extended Essays in Response to Stimulus
- Multimodal Research Assignments

Employment opportunities and pathways

Religious Education can establish a basis for university Bachelor's degrees in Theology, Arts, Journalism, and Cultural Studies.

Employment fields related to Religious Education include: ministry, youth work, social work, research, teaching and journalism.

Science:

Head of Department: Mr Mark Watson

Why study Science?

Science provides an empirical way of answering interesting and important questions about the biological, physical and technological world. Science is a dynamic, collaborative and creative human endeavour arising from our desire to make sense of our world through exploring the unknown, investigating universal mysteries, making predictions and solving problems. Science aims to understand a large number of observations in terms of a much smaller number of broad principles. Science knowledge is contestable and is revised, refined and extended as new evidence arises.

Students develop an understanding of important science concepts and processes, the practices used to develop scientific knowledge, of science's contribution to our culture and society, and its applications in our lives. This supports students to make informed decisions about local, national and global issues and to participate, if they so wish, in science-related careers.

In addition to its practical applications, learning science is a valuable pursuit in its own right. Students can experience the joy of scientific discovery and nurture their natural curiosity about the world around them. In doing this, they develop critical and creative thinking skills and challenge themselves to identify questions and draw evidence-based conclusions using scientific methods.

What is studied in Year 9?

Students in Year 9 continue their study of Physics, Chemistry, Biology and Earth Science in the following scientific contexts:

- Term 1 Matter matters: Atoms to elements, Chemical Reactions
- Term 2 Media blitz: Heat, Light & Sound, Electromagnetic Radiation
- Term 3 Shocking Science: Electricity. Health emergency: Body co-ordination and disease
- Term 4 Natural disaster: Ecosystems, Plate tectonics

How are students assessed?

Students are assessed in the criteria of 'Communication', 'Knowledge and Understanding' and 'Scientific Processes' using a variety of assessment techniques including:

- Research tasks
- Scientific Reports
- Extended Experimental Investigations
- Supervised assessments - Written test, Response to stimulus

Employment opportunities and pathways

Science can establish a basis for further education in Medicine, Biology, Physics, Marine Biology, Engineering, Nursing and Chemistry.

Fields of employment relating to Science include: medicine, health (e.g. physiotherapy, occupational therapy, audiologist, geneticist), education, marine biology, environmental and scientific research, micro-biology, chemical engineering, pharmacy, radiology, dentistry, veterinary, forensic science, oceanography, geophysics, meteorology, physics, audiology and electricians.

ELECTIVE SUBJECT OFFERINGS

Business and Economics:

Co-ordinator: Mr Patrick Howell

Why study Business and Economics?

Economics and Business explores the ways individuals, families, the community, businesses and governments make decisions in relation to the allocation of resources. It aims to enable students to understand the process of economic and business decision-making and its effects on themselves and others, now and in the future.

The study of economics and business develops the knowledge, understanding and skills that will inform students about the economy and encourage them to participate in and contribute to it. The curriculum examines those aspects of economics and business that underpin decision-making at personal, local, national, regional and global levels. Students learn to appreciate the interdependence of decisions made, as well as the effects of these decisions on consumers, businesses, governments and other economies.

The Economics and Business curriculum builds awareness of resource allocation and making choices; the business environment; consumer and financial literacy; and work and work futures. At the same time, students are exposed to and encouraged to develop enterprising behaviours and capabilities such as embracing change; seeking innovation; working with others; showing initiative, flexibility and leadership; using new technologies; planning and organising; managing risk; and using resources efficiently. In studying economics and business students will develop transferable skills that enable them to identify contemporary economic and business issues or events; investigate these by collecting and interpreting relevant information and data; apply economic and business reasoning and concepts to make informed decisions; and reflect on, evaluate and communicate their conclusions.

What is studied in Year 9?

Term A: **Building Business Savvy – Making sense of the Dollar - 1.**

- What is a market and how do businesses compete in the market?
- The ways consumers and producers respond to and influence each other in the market
- Why and how individuals and businesses plan to achieve short-term and long-term personal, organisational and financial objectives.
- Characteristics of entrepreneurs and successful businesses.
- Types of Expenses in business and how to calculate profit.

Term B **Building Business Savvy – Making sense of the Dollar - 2.**

- The ways markets operate in Australia and why they may be influenced by government.
- The rights and responsibilities of consumers and businesses in Australia.
- Types of businesses and the ways that businesses respond to opportunities in Australia.
- Influences on the ways people work and factors that might affect work in the future.
- Planning, implementing and evaluating an Entrepreneurial venture.

How are students assessed?

- Examination
- Entrepreneurial project / Market day
- Business report of project / Market day

Employment opportunities and pathways

The Study of Business and Economics can lead to university study, including Bachelors' degrees in Business, Accounting, Economics and Commerce.

Employment pathways include: accountancy, business management, financial consultancy, human resource management, commerce, marketing, advertising, stock broking, teaching etc.

Curriculum Support:

Head of Department: Mrs Deb Butler

Why take Curriculum Support?

Curriculum Support is only permitted for students on Individual Education Programs. The intent of curriculum support is to better meet the needs of students with special needs, assisting them with deconstruction of assessment tasks, organisation and planning.

Curriculum Support is not private tuition. Students who undertake this subject, will select one less elective offering.

What is studied in Year 9?

Students will learn to plan out their assessment tasks and work to timelines.

How are students assessed?

There is no assessment in this subject.

Employment opportunities and pathways

This subject has no direct relationship to employment opportunities or pathways.

Design and Industrial Technology:

Co-ordinator: Mr Cam McConnell

Why study Design Technology?

In an increasingly technological and complex world, it is important to develop knowledge and confidence to critically analyse and creatively respond to design challenges. Knowledge, understanding and skills involved in the design, development and use of technologies are influenced by and can play a role in enriching and transforming societies and our natural, managed and constructed environments.

Design Technology actively engages students in creating quality designed solutions for identified needs and opportunities across a range of technologies contexts. Students consider the economic, environmental and social impacts of technological change and how the choice and use of technologies contributes to a sustainable future. Students manage projects independently and collaboratively from conception to realisation. They apply design and systems thinking to investigate, generate and refine ideas, plan, produce and evaluate designed solutions.

The subject motivates young people and engages them in a range of learning experiences that are transferable to family and home, constructive leisure activities, community contribution and the world of work. Our rapidly changing world requires students to understand the process of change and to engage positively and creatively with it. Design and Technology Studies emulates these challenges contextually and asks students to react to 'real' situations.

What is studied in Year 9?

Design and Technology involves students in designing, engineering and producing innovative and creative products: These design tasks will be undertaken within a specific cultural, global, or environmental focus:

- Term 1 Generating flight: Students design a flat packing and marketable toy or recreational / leisure product to be flown: e.g. Glider
- Term 2 Tool making: Students design and make a tool for the future: e.g. Wearable technology
- Term 3 Flat Pack Product Design: Students design and make a product to fit into a4 envelope e.g. Lamp or light shade or storage device
- Term 4 Electronic Creature: Students design and make a moving creature using electronic waste.

How are students assessed?

Students are assessed in the criteria of 'Knowledge and Understanding', 'Investigating, Designing and Evaluating' and 'Production Skills' using a variety of assessment techniques including:

- Design Folios including CAD drawings
- Produced Artefacts (projects)
- Research Reports
- Visual presentations, such as data-show, time-lapse movie or multimedia may also be employed.

Employment opportunities and pathways

Design and Industrial Technology can establish a basis for further education at university level, in Architecture, Civil Engineering and Project Management. It is also a subject that assists students who wish to pursue a career in the construction or manufacturing sector.

Employment related to Design and Industrial Technology includes: graphic design, industrial design, product design, built environment design (architecture, landscape architecture, and interior design), engineering, urban and regional planning, and project management along with the construction and manufacturing trades.

Digital Technology:

Head of Department: Mr Mark Watson

Why study Digital Technology?

In a world that is increasingly digitised and automated, it is critical to the wellbeing and sustainability of the economy, the environment and society, that the benefits of information systems are exploited ethically. This requires deep knowledge and understanding of digital systems (a component of an information system) and how to manage risks. Ubiquitous digital systems such as mobile and desktop devices and networks are transforming learning, recreational activities, home life and work. Digital systems support new ways of collaborating and communicating, and require new skills such as computational and systems thinking. These technologies are an essential problem-solving toolset in our knowledge-based society.

Students are empowered to shape change by influencing how contemporary and emerging information systems and practices are applied to meet current and future needs. They have practical opportunities to use design thinking and to be innovative developers of digital solutions and knowledge. The subject helps students to become innovative creators of digital solutions, effective users of digital systems and critical consumers of information conveyed by digital systems. Digital Technologies helps students to be regional and global citizens capable of actively and ethically communicating and collaborating.

What is studied in Year 9?

- Unit 1 Data management and security - BASIC
- Unit 2 Game making - Java/ Game-maker/ Flash

Students will examine the control and management of networked digital systems and the security implications of the interaction between hardware, software and users. They will explain simple data compression, and why content data are separated from presentation.

Students will design and evaluate user experiences and algorithms. They will design and implement modular programs, including an object-oriented program, using algorithms and data structures involving modular functions that reflect the relationships of real-world data and data entities. They take account of privacy and security requirements when selecting and validating data. They evaluate information systems and their solutions in terms of risk, sustainability and potential for innovation and enterprise.

How are students assessed?

Students are assessed in the criteria of 'Knowledge and Understanding', and 'Processes and Production skills' using a variety of assessment techniques including:

- Digital Folios
- Collaborative projects
- Supervised assessment – Written test
- Programming tasks

Employment opportunities and pathways

The study of Digital Technology provides students with knowledge and skills that are relevant for living and working in today's information-based society. The course of study can establish a basis for further education and employment in the fields of programming, database administration, IT support, games development, and other fields in information technology.

Drama:

Head of Department: Mr Jason Goopy

Why study Drama?

Students of the Dramatic Arts learn both to perform and to critically reflect on performance, developing skills of creativity and evaluation. Drama assists students to develop their mind creatively and their abstract and creative thinking. Students learn to empathise with others' stories and understand a range of situations and perspectives, helping to develop their social and cultural skills and understandings.

In Drama, students also develop their communication and self-expression and build relationships in a range of contexts. It helps with building self-confidence, speaking in public, and developing interpersonal skills. Drama will help students become more aware of how their physical presentation can impact performance.

Furthermore, students develop a range of skills to develop them as artists, and students in other subjects as they develop their perseverance and ability to overcome obstacles, lateral thinking, problem-solving, ability to translate ideas from one form to another and expression of ideas.

What is studied in Year 9?

Students extend their understanding and practice of the elements of Drama as they explore new forms and styles. Students explore the history, stylistic features and conventions of Gothic Theatre and work with non-realistic performance forms in analysis, devising and performance activities.

How are students assessed?

Students will be assessed in a number of different ways, including:

1. Forming – creation and making of original ideas and works
2. Performance – presentation of scripted and original works
3. Responding – analysis and critical reflection on theirs and others performance

Students will be asked to participate in group work and performance work with others as an integral part of the course. This will help students to explore relationships on and off stage and develop communication skills.

Employment opportunities and pathways

The study of Drama can lead to a number of different pathways including direct employment in the industry and the wider creative industries field or tertiary study including university and / or TAFE courses such as bachelor degrees in the Arts, Creative Industries and Education as well as Certificates in Acting, Business or Technical Theatre.

Employment pathways related to Drama include: actor (stage, film, TV), applied theatre practitioner, casting director, choreographer, costume designer, movement coach, director (stage, film, TV), film/TV editor, lighting designer/technician, playwright, production management, publicity manager, radio announcer, scriptwriter, sound recordist/technician, stage manager, stunt performer, technical producer, television presenter, theme park entertainer, voice coach and wardrobe supervisor.

Engineering:

Head of Department: Mr Mark Watson

Why study Engineering?

Engineering is designed for students who have an interest in the practical application of science, mathematics and technology. This is a course that helps students understand the concepts and principles of engineering in its broadest sense. It is concerned with the theoretical concepts and practical applications related to technology, industry and society, engineering materials, engineering mechanics, and control systems. The course draws upon the fundamental principles of science, mathematics and technology, reinforcing conceptual ideas through practical workshop and laboratory activities. Integrated throughout is the development of technical communication skills applicable to engineering.

A course in Engineering meets the needs of students in a modern society increasingly concerned with social, economic, humanitarian and environmental issues such as sustainability, renewable energies and Indigenous perspectives.

What is studied in Year 9?

Engineering in Year 9 is designed to prepare students for the Senior subjects of Maths B, Maths C, Physics and Engineering Technology. As such, it is highly recommended that students be achieving a minimum of a B standard in Year 8 Maths and Science to enter this course.

Units of study are organised as follows:

- Unit 1: Materials properties and testing
- Unit 2: Statics – Truss bridge building
- Unit 3: Matrices, Vectors & complex numbers
- Unit 4: Trebuchets & Catapults – The Physics of Siege warfare

How are students assessed?

Assessment techniques used may include supervised written assessments, extended written response items, calculations, responses to stimulus materials, project and research work, investigations and assignments.

Non-written presentations, such as data-show or multimedia presentations, seminar presentations and radio/TV news reports may also be employed.

Employment opportunities and pathways

Engineering provides students with the opportunity to pursue a wide variety of professional career pathways, especially those that involve design, scientific research and/or problem-solving skills.

Careers which focus on advanced engineering knowledge and skills include: engineering, construction management, drafting, estimating, scheduling, project management, etc.

Food Technology:

Co-ordinator: Mrs Jill Rau/Miss Kath Little

Why study Food Technology?

Food is a big part of our lives, though we often don't realise it. In Food Technology students will engage with significant issues related to food, including the ethics of food production and food service. Importantly, they will improve their understanding of the impact of food selection in our health and well-being, learning about how culture, tradition, scarcity, sustainability and nutrition impact choices we make around food selection.

As well as providing students with a theoretical understanding of the core issues impacting food, Food Technology is a practical subject which invites students to experiment with food design and creation, while at the same time, providing students with strong work place health and safety practices. Students of Food Technology will learn how to work productively as part of a team, observing the conventions of professional practice. In many ways, this is a course designed for students who are interested in a vocational pathway.

What is studied in Year 9?

Introduction to food preparation and safety

- Choosing safe ingredients and equipment
- Sustainability issues in food production
- Organic food and food waste
- Safe work practices

Nuts about nutrition

- Food groups
- Measures of Health and Wellbeing – healthy hair, skin, glycaemic index, heart, diabetes, osteoporosis
- Dieting and mindless eating

How are students assessed?

Students will be assessed in both theoretical and practical elements of the course. Assessment will include both individual and group tasks.

- Written assessment will include: Reports, Menu Planning, Journal
- Practical assessment will include: Designing packaging, Food making tasks

To succeed, students should be able to demonstrate the following skills:

- Organisation and explanation of extended written text
- Evaluation
- Justification

Employment opportunities and pathways

The study of Food Technology can lead to future certificate courses, through TAFE, in Hospitality. Employment pathways include the hospitality and services industry.

Geography:

Head of Department: Mrs Lisa Holohan

Why study Geography?

Geography integrates the natural sciences, social sciences and humanities to build a holistic understanding of the world.

Geography provides skills that can be applied in everyday life and at work. It teaches students to respond to questions critically, plan an inquiry, collect, evaluate, and interpret information, and suggest responses to what they have learned. Students conduct fieldwork, map and interpret data and spatial distributions, and use spatial technologies.

What is studied in Year 9?

There are two units of study in the Year 9 curriculum for Geography: Biomes and food security and Geographies of interconnections.

Biomes and food security focuses on investigating the role of the biotic environment and its role in food and fibre production. This unit examines the biomes of the world, their alteration and significance as a source of food and fibre, and the environmental challenges and constraints on expanding food production in the future.

Geographies of interconnections focuses on investigating how people, through their choices and actions, are connected to places throughout the world in a wide variety of ways, and how these connections help to make and change places and their environments. This unit examines the interconnections between people and places through the products people buy and the effects of their production on the places that make them. Students examine the ways that transport and information and communication technologies have made it possible for an increasing range of services to be provided internationally, and for people in isolated rural areas to connect to information, services and people in other places.

A Semester of study is organised as follows:

- What are the causes and consequences of change in places and environments and how can this change be managed?
- What are the future implications of changes to places and environments?
- Why are interconnections and interdependencies important for the future of places and environments?

How are students assessed?

Students will complete a range of assessment tasks including:

- Content and Short Answer Response to Stimulus Tests
- Geographical Inquiry Research
- Written and Oral Field Investigations

Employment opportunities and pathways

The study of Geography can lead to university pathways, including Bachelor's degrees in Arts, Science and Geology.

Career pathways related to Geography include: environmental science, marine biology, geology, meteorology, sociology, research, climatology, dam management, education, public service, journalism, aide work.

Japanese:

Teacher: Mr Paul Ramsey/Mrs Jill Rau

Why study Japanese?

Japan's geographical proximity and strong economic partnership with Australia are important reasons why Japanese has long been taught in Australian schools. The strong partnership enjoyed by Australia and Japan require increasing interaction and exchange between Australians and Japanese speaking people. A close proximity and similar time zone allow for easy access and communication, providing Australian learners of Japanese plentiful opportunities for cultural exchange and interaction.

Learning a second language broadens students' horizons, enables them to understand how culture shapes identity and strengthens understanding of their own language and the nature of language. Learning a second language has been shown to be a great asset to the learner's cognitive performance, enhancing skills such as analysis, reflection and critical thinking.

As Japanese is a phonetical and predictable language, choosing Japanese as a second language to learn has numerous benefits. Students of Japanese develop useful communication skills and an appreciation of the Japanese culture and a respect for diversity and difference. Since the year 2000 Ambrose Treacy College has built a strong brother school relationship with Konan School in Kobe, Japan. Students of Japanese have the opportunity to develop their language skills and cultural appreciation through school trips to Japan.

What is studied in Year 9?

The programme consists of four themed units throughout the semester - family, place and time, food and travel in Japan.

In the family unit students will apply new and learned vocabulary, particles and develop sentence patterns of increasing complexity to describe their family in detail and also investigate how Japanese families may be different to that of their own culture.

The place and time unit focuses on developing practical skills such as being able to ask where something is or what time they need to be somewhere.

The food unit extends on the food unit studied in year 8. Students investigate how to express what foods they want/don't want, ask for a certain number, ask how much a food item is and describe their eating habits in present and past tense. Learners will have the opportunity to go on a class excursion to a Japanese restaurant to practice reading and speaking skills.

The travel unit requires students to research Japanese geography, culture, travel and leisure options and apply new and learned sentence patterns, particles and vocabulary to develop a 5-day itinerary for travel in Japan.

How are students assessed?

Students will complete a range of assessment tasks including:

- Translation tests across all modes - reading, writing, listening and speaking
- Written oral presentation about student's own family
- Written assignments planning a holiday schedule in Japanese

Employment opportunities and pathways

Learning a language in the Senior phase can lead to many career opportunities. Japan remains a global economic force and international business, cultural exchanges and tourism are growth areas for young people. The addition of Japanese language to any tertiary course (for example engineering, science, law, medicine, international relations, construction management, teaching, IT and digital technologies etc.) can lead to international opportunities.

Justice and Peace Studies:

Head of Department: Mrs Lisa Holohan

Why study Justice and Peace?

The study of Justice and Peace provides a forum for students to analyse and address some of the most critical issues of our time. It is an innovative course which gives students the opportunity to develop their understanding of social justice issues and critically analyse the nature of justice and injustice, peace and war, violence and non-violence from the international to the interpersonal level.

The course emerges from the Edmund Rice Education Australia vision for peace and justice for all. "The purpose of an education for justice and peace is to form passionate and compassionate young people who are not only aware of the structures that prevent all creation from being fully alive but also have the knowledge, skills, attitudes and spirit to act and advocate for a better world for all". (Edmund Rice Education Australia)

Justice and Peace studies empowers students to be able to analyse complex social justice issues such as poverty, human rights, racism, environmental degradation and oppression and develop practical responses as a result of combining academic rigour, creative collaboration and social and transformative action. The course focuses on developing the critical and analytical skills and ethical understanding necessary to live and work responsibly in a global world. In addition to this the course is instrumental in helping students develop academic skills which will assist them to achieve in the senior phase of learning including, research, evaluation, analysis, action research skills, developing arguments and proposals, report writing and oral presentation skills.

What is studied in Year 9?

Throughout the course students will analyse real world perspectives and critically evaluate political responses to social justice and human rights issues.

- Term 1: Students will begin the course by analysing different perspectives on peace and justice and develop the skills to analyse complex issues. Content focus: Poverty.
- Term 2: Students will continue the course in Term 2 by considering the concept of 'Justice' and how this is applied in the real world. They will analyse different perspectives about fairness, equity and the Rule of Law and how these might be applied to complex social issues. Students will then explore the concepts of human rights through a detailed investigation of human rights and how they have been applied throughout the world. Content focus: Law & Human Rights

This course explicitly focuses on developing the following General Capabilities as articulated in the Australian Curriculum: a) Critical and Creative Thinking b) Personal and Social Capability c) Ethical Understanding d) Intercultural Understanding.

How are students assessed?

Students will complete a range of assessment tasks including:

- Research Project
- Response to Stimulus Task

Employment opportunities and pathways

The study of Justice and Peace prepares students to become leaders who will work for the justice of all people. The course helps students develop skills that are essential to the study of Economics, History, Geography, Legal Studies and Religion in the Senior Phase of Schooling. The course can establish a basis for university bachelor's degrees in arts, law, social work, international relations, journalism, political science and economics.

Employment fields related to justice and peace include: international relations, law, public service, foreign aid, diplomacy, education, journalism, and business management.

Music:

Head of Department: Mr Jason Goopy

Why study Music?

Music is an enjoyable, challenging and inclusive subject that develops young men intellectually, emotionally, socially and spiritually. The study of music can foster lifelong and meaningful music participation. Students will: broaden their horizon; develop empathy and respect for a range of views; be supported in pursuing their own interests and passions; be encouraged to express their individuality; imagine and create original ideas and solutions to problems; and, learn to communicate and collaborate creatively with others. All students can experience success in this subject and research shows a deeper musical understanding leads to increased musical enjoyment. In particular, students receiving individual tuition on an instrument/voice and involved in the co-curricular ensemble program will benefit from studying class music.

What is studied in Year 9?

This course will present both challenges and rewards to students through a diverse range of exciting learning experiences. This course will extend student musicianship sequentially by developing and extending a range of music skills, knowledge and understanding concurrently. Students will benefit from a well-rounded music education incorporating performance, composition, theory, aural development, music technology, and investigations into social and historical context. A broad range of music styles and genres will be analysed and evaluated ranging from vocal and instrumental music of the past to popular song and new music. Students will use the College's sound recording studio to record their own music.

How are students assessed?

Students will engage in a variety of small musicianship tasks and larger projects that extend their personal and group musicianship. The course assessment provides students with the flexibility to pursue their own interests, express their individuality and collaborate with their classmates.

Students are assessed on the following criteria:

- Making: Composing – Examples of possible assessment include: Re-creation of existing works; arrangements; remixes; and, original compositions (handwritten and using technology)
- Making: Performing – Examples of possible assessment include: Solo, small group and large group performances through singing and playing instruments
- Responding – Examples of possible assessment include: Aural (listening) and visual (music notation) analysis; and, aural dictation

Further study and careers

Music encourages meaningful lifelong music participation beyond school. This includes for personal and social enjoyment, cultural understanding, performance in community ensembles and garage bands, creating new music to share with others, and being an informed audience member. The study of Music in Years 11 and 12 can contribute towards a student's tertiary entrance score. Further study options exist for certificates, diplomas and university degrees in music performance, composition, musicology, music theatre, music technology, audio production, popular music, creative industries and education. Many universities also offer dual degree programs combined with other fields of study.

The study of music could directly assist and lead to the following careers: accompanist, arts/music administrator, advertiser, audio engineer, church musician, conductor, composer, DJ, event management, instrument craftsman/builder, marketing, musicologist, music curation, music/entertainment/intellectual property lawyer, music journalist/critic, music librarian, music teacher, music theatre artist, music therapist, producer, professional musician, music retailer, singer songwriter, software engineer, stage management, and video game developer.

Visual Art:

Head of Department: Mr Jason Goopy

Why study Visual Art?

Visual Art provides students with the opportunity to be expressive, innovative and creative. Through the process of experimenting with art materials students develop their skills and learn to appreciate the artistic practices demonstrated in the work of other artists. By looking at the work of historical, contemporary, national and international artists' students will be challenged to question their own perception of what art is. In turn, this will encourage discussion and allows students to think critically about the work of others and be inspired to create their own unique visual responses to the world around them.

The 21st Century learner engages with digital technology throughout their learning which has led to an increase in employment opportunities within Creative Industries. It has been proven that skills acquired through the study of Visual Arts are admired by employers from various industries and professions. These skills include the ability to approach tasks from different perspectives, analyse and think critically, problem solve, work collaboratively or independently and accept constructive feedback in order to improve.

At the end of the day you don't just study art, you MAKE it!

"The arts enhance the process of learning" and current research shows" it is the driving forces behind all other learning" (Jensen, 2001).

What is studied in Year 9?

Visual Art will be studied over a twenty-week semester. Each term students will complete one Making assessment and one Responding assessment.

Skateboard Deck – Students will develop a theme to assist them in the development of artwork to feature on a skateboard deck. Students will brainstorm ideas, explore possible techniques and experiment with materials and document their processes in their visual diary. Students will be introduced to Street Art and respond to the work of local street artist Anthony Lister.

Street Art Stencil – Students will be introduced to basic Photoshop skills to create a stencil of a well-known person or someone they admire. Using a range of mixed media techniques students will create their own 'street wall' to showcase their stencil using images, text or colour that relate to their chosen person. Students will be shown how to respond to artworks and analyse techniques used by other artists to engage an audience.

How are students assessed?

Visual Art students are assessed in the following areas according to Australian Curriculum Guidelines.

Making: Design process, manipulating materials, processes and techniques.

Responding: Responding to artwork, research, critical thinking, knowledge and reflection.

Employment opportunities and pathways

The study of Visual Art can lead to a number of different university and / or TAFE courses including bachelor degrees in the Arts, Creative Industries and Education.

Employment pathways include: creative industries, gaming designer, art critic/writer, art teacher, arts administrator, artist, graphic designer - advertising, corporate, interior design, publishing, multi-media specialist, architect, set designer, book illustrator, art therapist, cartoonist, landscape architect, photographer, industrial designer and web designer.

