

# IONA COLLEGE



## STUDIES GUIDE YEAR 10 2024

This Studies Guide is designed to:

- give you an overview of the subjects available to students in Year 10
- familiarise you with the details of core subjects that all students must study.
- be of assistance to parents and their sons in making choices for elective subjects.

Necessarily, this overview of subjects offered here at Iona College is brief. Should you require more specific details, please contact the Head of Faculty or subject teacher who will be more than willing to assist.

**Core subjects are subjects that all students must study. In 2024 these subjects are:**

Religious Education

Mathematics

English

HASS

Health & Physical Education (Sport)

Senior Pathway Studies (SPS)

**In addition, students choose three elective subjects for Year 10 from the following subject list:**

Aerospace

Commerce

Physical Science

Life Science

Music

Drama

Digital Technologies

Industrial Technology

Engineering

Design

Art and Film

Japanese

Physical Education

Certificate II Sports Coaching

Elective choices are an opportunity for you to explore and discover your own particular talents and interests. Developing and discovering these talents and interests involves your own personal development and the gradual process of becoming aware of what you might like to do in the future. This whole process takes place in both the core subjects and the elective subjects. What elective subjects require is that you and your parents make some decisions now. You must think about the things you might like to do and investigate these subjects yourself. Choosing elective subjects is a matter of personal choice – based on your talents and your interests. You are not required to make career choices now. The nature of Iona's core subjects means that most career pathways are still open to you at the end of Year 10 studies.

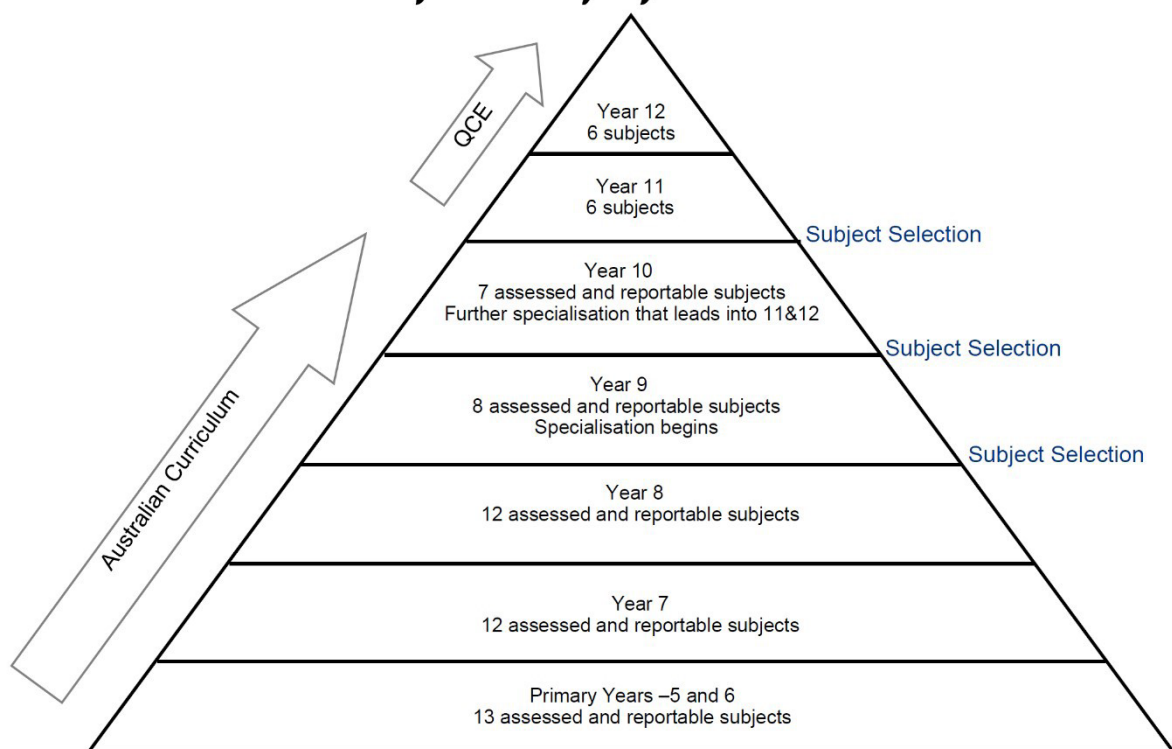
However, it is very important to note the exceptions to this rule of thumb:

Japanese must be studied in Years 9 and 10 for students wishing to study this subject in Years 11 and 12. If a student wishes to study Music in Year 11 without prior instrumental instruction or study in Years 9 or 10, an interview with the Head of Department (Music) is required.

Notwithstanding the above information, all students should be aware that most courses in Years 11 and 12 have prerequisites for entry. These are related to the levels of achievement and behaviours required to attain success in the senior years. In general, a minimum of a C standard is required for entry to the ATAR pathway. Some higher prerequisites are required for entry to Mathematical Methods, Specialist Mathematics and some Science courses. Students wishing to undertake IDT in Years 11 and 12 must have consistently demonstrated safe practices in the workshop during Years 9 and 10.

The Year 10 programme is the next step in the specialisation of subjects, leading students onto their Senior pathway.

## Pyramid of Specialisation



**POSSIBLE SUBJECT PROGRESSIONS AND PATHWAYS (as of June 2023)**

YEAR 9	YEAR 10	YEAR 11/12
English	English	General English Literature Essential English *
Religious Education	Religious Education	Study of Religion Religion and Ethics *
Mathematics  STEM	Introduction to Mathematical Methods Introduction to General Mathematics Introduction to Essential Mathematics	Mathematical Methods Specialist Mathematics General Mathematics  Essential Mathematics *
Science  STEM  Marine Science	Physical Science  Engineering  Life Science	Physics Chemistry  Biology Marine Science
History	History and Social Sciences	Ancient History Modern History Geography Study of Religion
Japanese	Japanese	Japanese
Commerce	Commerce	Economics Accounting Business Legal Studies Certificate III in Business **
Music	Music	Music
Drama	Drama	Drama

Visual Art	Art and Film	Visual Art Film, TV and New Media Visual Arts in Practice * Cert III in Screen and Media **
Physical Education	Physical Education  Certificate II Sports Coaching **	Physical Education Certificate III in Sport & Recreation ** Certificate III in Fitness **
Design	Design	Design Industrial Graphics Skills *
Industrial Technology	Industrial Technology  Engineering	Building and Construction Skills * Engineering Skills * Industrial Technology Skills*
Digital Technology	Digital Technology	Digital Solutions
Aerospace	Aerospace	Aerospace Systems

\*Applied subject

\*\* Vocational Education & Training (VET) Course – additional fees apply

# Faculty of Religion Education

## RELIGIOUS EDUCATION

(Core Subject)

The Religious Education programme in Year 10 at Iona College has been developed according to the guidelines of the Archdiocese of Brisbane. Students will study units which are underpinned by the four inter-related strands of Sacred Texts, Beliefs, Church and Christian Life. These strands are interrelated and taught in an integrated way, and in ways that are appropriate to our specific local context.

Topics explored in the Year 10 are focussed on the theme, The Mystery of God – named, encountered and better understood in today's world. Learning experiences will include:

- Insights of the major world religions (Christianity, Islam, Judaism, Hinduism and Buddhism) regarding the mystery of God as reflected in their core beliefs and practices.
- Representations of God in Old and New Testament texts.
- Christian spiritual writings that search for the mystery of God in the midst of world events and the course of human history.
- Students explore how the church has responded to a range of unprecedented threats to human and environmental ecology.
- They examine the Eucharist as the primary and indispensable source of nourishment for the spiritual life of believers.
- They continue to develop their understanding of prayer in the Christian tradition.

In addition to a study of the above topics, students will have opportunities to enrich the spiritual dimension of their lives through experiences of prayer and liturgy e.g., College Masses, Sacrament of Reconciliation, classroom prayer, meditations, and year level camps.

# Faculty of Humanities

## HUMANITIES AND SOCIAL SCIENCES (HASS)

(Core Subject)

This course has been designed to meet the requirements of the National Curriculum and focuses on the foundations of the contemporary world. It provides the opportunities for students to engage in worthwhile research so that they might develop knowledge, skills and abilities which enable them to be engaged global citizens.

The main aim of the HASS program in Year 10 is to provide students with an understanding of how past and present events affect the way we live today. The students will examine key events on both an Australian and international level. There will be an emphasis on the analytical and writing skills which are so necessary for success in the contemporary world.

The course builds on the knowledge and skills established in Years 7, 8 and 9 HASS. In Year 10, students will choose topics to study over the year, based on their interests which will include a combination of units from Geography, Modern History and Ancient History.

With the increasing importance of analytical and writing skills in both senior secondary and further education, it is important that all students have the opportunity to develop these abilities. To this end, HASS may be assessed each semester by:

- A research assignment
- A source investigation
- A short response / response to stimulus examination.

Humanities and Social Sciences provides a solid foundation for many senior subjects, in particular the social sciences of Modern History, Ancient History and Geography.

# Faculty of Arts

## DRAMA

(Elective Subject)

**“Intelligence having fun!”**

Through engaging in Drama, students develop vital 21<sup>st</sup> Century skills such as; critical thinking, creativity, collaboration and communication.

Students actively engage in Drama through practical work that supports and enhances academic theory that is embedded with links to History, Philosophy, Sociology and Politics. Drama provides a medium for exploration, social criticism, celebration and entertainment. It enables students to define and shape their own identity within our social and cultural contexts. By blending intellectual and emotional experiences, Drama offers a unique means of enquiry that contributes to a student’s perceptive understanding of our world and of the issues they face in their own lives.

The Year 10 Drama course emphasises effective communication and creative expression. During the course, the students will interpret and present published materials as well as write and perform a variety of their own different dramatic pieces. Furthermore, the students attend a wide variety of professional performances and participate in workshops with visiting master artists, actors and theatre practitioners.

Participation in Year 9 Drama is not a pre-requisite for the Year 10 Course. Students who have studied Drama in Year 9, must have gained a minimum C standard in order to proceed into Year 10 Drama. Students who have not studied Drama in Year 9 require a C standard in Year 9 English.

### THE YEAR 10 DRAMA COURSE

**Theatre for Young People** – This style of theatre encourages students to reflect on the world around them and their place within it. Students’ analysis and evaluate a live performance and, through the manipulation of the elements and conventions of Drama, they devise, create and propose an original dramatic concept.

**Acting for Film** – Students explore and experiment with a variety of film scripts and discover how to act for camera, this culminates in a live performance for parents and friends. Each student presents two contrasting monologues re-imagined for stage.

**Epic Theatre** – Conceptualised by Bertolt Brecht during WWII as a form of protest, Epic Theatre argues a socio-political position. Students explore a Brechtian play and communicate their own comment on our current society through experimenting, making dramatic decisions, devising and manipulating.

**Australian Gothic Theatre** – Through this contemporary style, students appreciate the creation of mood and tension through the sequencing and structuring of text. They analyse, devise, construct and argue a position about the creation of dramatic meaning.



# MUSIC

(Elective Subject)

Music is a vibrant learning community where you will create, perform and analyse music from many genres, for many purposes. Studying music can lead to careers in creative industries, public relations, arts administration, communication and science and technology.

More and more workplaces and organisations value creativity and diversity in their employees. Music processes and practices will help you develop transferable 21st century skills such as: creative and critical thinking, collaboration, ICT skills, social/personal skills and communication.

You do not have to be learning an instrument. Students selecting music, we will support you in developing the skills you need to be successful.

Participation in Year 9 music is not a prerequisite for the Year 10 course. Students who have studied Music in Year 9, must have gained a minimum C standard in order to proceed into Year 10 Music. Students who have not studied Music in Year 9 should consult the Head of Music to check their eligibility.

Through the study of Music, students have the opportunity to:

- Develop critical thinking and problem-solving skills
- Develop effective communication skills
- Collaborate with others and consider diverse perspectives
- Engage in creative processes
- Gain cultural awareness
- Become productive users of technology
- Experiment with ideas, explore and experience through inquiry processes

Topics explored in Year 10 Music include:

## **Jazz**

Study the unique way elements of music are used in jazz styles. Learn performance conventions and improvisation techniques.

## **Singer/ Songwriter**

Develop your own 'voice' through composition and study of this contemporary style.

## **Functions of Music**

Design your own project in response to the role/s music plays in life. Areas of study include, but are not limited to: sport, entertainment, dance music, music therapy, culturally significant music.

# ART AND FILM

(Elective Subject)

Our Art and Film course for Year 10 offers students a breadth of experiences that includes; photography, documentary making, painting technique, virtual reality building, ceramics and a student choice folio unit. Students should consider this option if they have an interest in Art and Film, Animation, Photography, Film and Television or Creative Industry.

Topics covered in the Year 10 course are designed to prepare students for senior specialist courses:

- Art and Film (General Senior Subject)
- Film, Television and New Media (General Senior Subject)

Art and Film prepares young people for a future in the workforce by requiring them to seek creative solutions to complex design problems, think divergently and use higher order learning skills to articulate an informed and individualised aesthetic (style/expression). At a time when creativity is sought by industry, Art and Film significantly contributes to the design and manufacture of images and objects needed for living. Through the study of Art and Film, students have the opportunity to:

- Develop creativity, imagination and problem-solving skills
- Work as individuals and in groups
- Meet and learn from visiting artists
- Learn to be self-driven
- Have the freedom to choose their own projects and areas of study
- Acquire skills and techniques necessary for the production of a variety of art works
- Develop discrimination and appreciation of the value of art, artists and craftspeople
- Be inclusive and appreciative of multiple perspectives or points of view
- Gain knowledge of art theory and art history

Students exhibit their works in the annual Iona College exhibition, the *Iona Art Project*, in Term 3 and are encouraged to enter local and initiated art making competitions. Excursions to the Queensland Art Gallery and the Gallery of Modern Art are regularly included in our programs. Artists are also invited to the college to conduct workshops and share their unique ways of working with the students.

Various assessment techniques are used including: individual practical activities involving development and application of skills or processes, journals, written research projects and verbal communication techniques. Homework is set and assessed as needed. Students will be expected to complete some work on assessment outside of class time, such as developing ideas, completing designs and individual practice. There are both practical and theoretical components for each task completed. The theory component of the course is 'related theory' and links to the practical work being produced.

Students must gain a minimum C standard in Year 9 Visual Art to proceed into Year 10 Art and Film. Students who have not studied Visual Art in Year 9 should consult the Head of Art and Film to check on their eligibility.

# Faculty of Commerce

## COMMERCE

(Elective Subject)

The purpose of Commerce is to guide students toward personal competence and responsible participation in society. In doing this it provides a distinctive and significant contribution to the total school curriculum and thereby the general education of students.

As participants in the commercial environment, individuals assume various roles such as consumer, producer, worker, owner, manager and taxpayer. A study of Commerce should guide students towards an understanding of Australia's changing commercial environment and enhance their personal competence to participate responsibly in that environment. It should also provide a means whereby young people are made aware of the forces of change, including changes in politics, information technology, the law, the economy and the environment.

Topics covered in the Year 10 course are designed to prepare students for senior specialist courses. Accordingly, the topics covered in Year 10 are:

- Economics
- Accounting
- Business
- Legal Studies

A variety of assessment techniques will be used including short answer examinations, extended response essays and research assignments. Assessment in Commerce will be based on cognition, focusing on the skills of Knowledge, Understanding, Interpretation, Evaluation, Communication and Presentation.

Whilst Commerce is a separate and distinct subject, the complexity of the commercial environment means that a course in Commerce will have links across the school curriculum. Accordingly, Commerce plays a complementary and interdependent role within the total curriculum, drawing upon and contributing towards other subject areas and skills. Though it is not a pre-requisite, a study of Commerce should give students an introduction to concepts and skills covered in senior studies of Accounting, Business, Economics and Legal Studies.

# Faculty of Design and Innovation

## DESIGN

(Elective Subject)

In Design, students interact with new technologies such as laser cutting/engraving, 3D printing, CNC milling, and more. The course is structured to expose students to the range of digital and physical tools used in the Design fields and to provide the underlying skills to select the right process for their desired outcome in future projects. Design is focused majorly on divergent and convergent thinking strategies where students will be challenged to solve aspects of real-world problems in controlled or specific environments by considering and exploring many potential solutions. This course includes some practical work at times to realise design solutions in the form of prototyping and modelling, however, is predominantly focused on hand drawn sketching and written folio work.



### Students undertaking Design will:

- Consider many factors when approaching design problems
- Focusing on the needs of the end user and/or clients with empathy
- Think inside and outside 'the box' when devising solutions
- Work with emerging technologies
- Analysing new opportunities
- Experience entrepreneurial skills
- Prototype, iterate, and model solutions
- Develop and use sketching and digital modelling skills
- Explore Divergent and Convergent thinking strategies
- Consider sustainability factors
- Evaluating products and processes

### Pathways

Learned elements in Design will be developed further in Design (General Subject).

### Design occupations can include:

- Industrial Designer
- Architect
- Interior Designer
- Graphic Designer
- Draftsperson
- Digital Designer
- Creative Industries
- Landscape Architect
- Engineering fields

# INDUSTRIAL TECHNOLOGY

(Elective Subject)



In Industrial Technology, students explore the role of manufacturing fields in modern society from a range of perspectives. The course is designed to offer students a high level of practical work, workshop skills, some design elements, and problem-solving tasks.

## Students undertaking Industrial Technology will gain experience in:

- Making products to specifications and standards
- Applying techniques to manipulate materials in production
- Using a wide range of hand tools for wood and metal
- Using a wide range of portable power tools such as drills, drivers, and trimmers
- Using a wide range of fix machinery
- Focusing on safe operation and appropriate uses

## Pathways

Learned elements in Industrial Technology will be developed further in Industrial Technology Skills (applied), Engineering Skills (Applied) and Building and Construction Skills (Applied).

## Industrial Technology occupations can include:

Boiler Maker	Plumber	Building technician
Machinist	Tiler	Foreman
Fitter and Turner	Painter	Draftsperson
Sheet metal Fabricator	Plasterer	Mechanic
Other Metal Trades	Other Building Trades	Engineer
Carpenter	Technologies teacher	Electrician

# AEROSPACE

(Elective Subject)

Aerospace builds an understanding of the aviation and aerospace industries, whose development has been one of the most exciting and challenging adventures in human history. Students will study basic aeronautical knowledge, drones, the business of aviation, and developments in military aircraft. Students will use aircraft simulators to model flight, as well as gaining an understanding of the importance of safety and regulation in the aviation industries.



Major aircraft manufacturers forecast massively increased demand in the Aerospace industries such as maintenance, engineering, and repair in the coming decades. Today, military aircraft routinely conduct missions with pinpoint accuracy, often at supersonic speeds.

## Students undertaking Industrial Technology will gain experience in:

- Introduction to the aircraft maintenance and repair industry
- Safety in the aircraft industry workplace
- Basic aerodynamics, aeroplane aerodynamics, and flight controls
- Use of hand and power tools in the construction of miniature/model aircraft
- Basic aircraft hardware
- Basic aeroplane structures and aircraft materials
- Propulsion systems
- Basic electricals and electronics

A variety of assessment techniques will be used including short answer examinations, folios, research tasks, and presentations.

## Pathways

Learned elements in Aerospace will be developed further in Aerospace Systems (General Subject).

## Aerospace occupations can include:

- Airline Pilot
- Aircraft maintenance engineer
- Air traffic Controller
- Ground logistics
- Airport designer
- Defence force
- Drone pilot
- Flight trainer

# ENGINEERING

(Elective Subject)

Engineering involves the practical application of science, technology, engineering, and mathematics (STEM) knowledge to develop sustainable products, processes, and services. Engineers use their technical and social knowledge to solve problems in ways that meet the needs of today's individuals, communities, businesses, and environments, without compromising the potential needs of future generations. Students who study Engineering develop technical knowledge and problem-solving skills that enable them to respond to and manage ongoing technological and societal change.

Engineering includes the study of mechanics, materials science, and control technologies through real-world engineering contexts where students engage in problem-based learning. Students learn to explore complex, open-ended problems and develop engineered solutions. They recognise and describe engineering problems, determine solution success criteria, develop and communicate ideas and predict, generate, evaluate and refine prototype solutions. Students justify their decision-making and acknowledge the societal, economic, and environmental sustainability of their engineered solutions. The problem-based learning framework in Engineering encourages students to become self-directed learners and develop beneficial collaboration and management skills.

The subject matter in this course relies heavily on the student being comfortable with Mathematical and Science based knowledge.

## Students undertaking Engineering will:

- Consider how technologies impact people and society
- Make discerning decisions about the development, use, and impact of technologies
- Work independently and collaboratively to solve problems
- Apply practical thinking to theoretical problems
- Critical and creative thinking
- Investigate civil structures and environment
- Learn the mathematic underpinnings of machines and mechanisms

## Pathways

Learned elements in Engineering will be developed further in Engineering (General Subject).

## Design occupations can include:

- Civil Engineering
- Mechanical Engineering
- Mechatronics
- Electrical Engineering
- Aerospace Engineering
- Mining
- Chemical Engineering
- Marine Engineering
- Biomedical Engineering
- Environmental Engineering

**\* This is a new subject being offered in 2024 and is dependent on final numbers.**

# DIGITAL TECHNOLOGIES

(Elective Subject)

Digital Technologies aims to teach students how to use technology effectively to solve problems and develop solutions. Students learn how to use a variety of computer-based applications and develop skills and understanding of the role digital technologies play in society. Jobs in the 21<sup>st</sup> Century have an increasing reliance on information technology and skills in coding, data analytics and cyber security are constantly in high demand.

All units covered in Digital Technologies have a strong focus on problem solving and will explore technology's role in society. The course covers a broad range of skills and software, making this subject applicable and helpful for any other subject and future pathway that students may choose.

**Year 10 Digital Technologies** covers core skills in coding, database design, client demand, and cyber security.

## **Core programming skills**

Using the in-demand coding language of Python, students develop their skills in programming, including algorithm design and software development. They begin to learn pseudocode in order to create solutions to real world problems.

## **Database design and data analytics**

Students will use SQL, the industry-standard database language, to design and build efficient databases for the storage, retrieval, presentation and analysis of data.

## **Web development**

Students will learn how to extend their coding and database design skills to develop a website. This task requires a site that retrieves content from a database and displays it to a user.

## **Client build**

To bring all of their coding and database skills together, students are tasked with a hands-on task to develop a deployment-ready website. This task winds in features of project development and higher order thinking skills such as answering client need.

## **Cyber security**

Students also encounter means and methods that are used to ensure that websites remain secure. In an age of growing cyber threats, this introduction covers basics on how experts keep content safe on the web.

All units in Digital Technologies are hands-on and include coding in industry-applicable languages and contexts.



# Faculty of English and Languages

## ENGLISH

(Core Subject)

In English we study a variety of texts that include film, plays, novels, song and poetry in English. By engaging with texts, it 'allows us to rehearse different ways of seeing the world and different emotional reactions' (Mission & Morgan, 2006). It is through the experience of reading and creating texts that we manipulate, refine and experiment with language choices and text structures to produce meaning for an intended audience and purpose. We create and analyse a minimum of four summative tasks in a year. These include unseen exams, narratives, persuasive speeches and texts for the media e.g., Blog, news report etc.

Students should be aware that their Year 10 English result is used as a prerequisite for Year 11 (2024) subjects, and therefore, achievement is important from the first task of the year.

### COURSE OUTLINE

In Year 10, English is divided into thematic units of work, each with a clearly defined focus. Units offered include:

- The Greatest Composer Ever- a play study that focuses on character comparison to understand the relevance of Shakespearean texts
- The Australian Story- students explore a variety of Australian texts that focus on representations of Australian Identity and how they have developed over time
- A Way with Words- students focus on manipulating creative writing skills with a focus on human stories
- Ethics and Morality- a novel study that represents challenging or difficult social/ moral and ethical relationships

### ASSESSMENT

Assessment is continuous, with a range and balance of tasks undertaken at various times and under varying conditions. Assessment techniques may include:

- expository or analytical essays
- persuasive speeches
- literary articles
- film analyses
- multimodal presentations
- narratives or short stories

Students will be awarded a level of achievement based on their results for all pieces of assessment over the semester.

# JAPANESE

(Elective Subject)

The study of another language and culture widens horizons, extends communicative competence and deepens intercultural understanding, enabling language learners to successfully take their place as global citizens.

The Year 10 course allows language students to extend on their range of language use developed from Year 9, across the four macro -skills. The course prepares those wishing to pursue Japanese in senior with a solid foundation of grammatical understanding and a broad vocabulary bank.

In Year 10, students are expected to be fluent in their ability to read and write Hiragana, Katakana and some of the studied kanji. Students are expected to be independent, self-regulated learners to help with the acquisition of new vocabulary and grammar.

Successful completion (minimum C) of the Year 10 Japanese course is a pre-requisite to Senior Japanese.

Topics tackled through learning experiences and various activities in the four macro skills include units such as:

- Milestones & growing up
- Shopping, fast food & leisure
- Travelling to Japan
- Part time work
- Future aspirations

Assessment: There are one to two pieces of assessment per term. Some assessment involves two macro skills being assessed at one time (e.g. (writing and reading) There are no assignments but there is a multi- modal presentation. Students will have the opportunity to participate in cultural activities, excursions (such as dinners, cultural performances, movies) and contact with native speakers throughout the year. Year 10 students are given priority to host students from our brother school and are also able to go to Japan on a self-assisted immersion program during the July holidays.

# Faculty of Mathematics

In Year 10, Mathematics is split into three distinct introductory courses:

- Mathematical Methods
- General Mathematics
- Essential Mathematics

You son will do one of the listed Maths subjects in Year 10, based on his Year 9 results but there is scope to opt into a particular subject. Year 10 is the final year to attempt a branch of Mathematics before finally selecting their Senior Maths subject.

## INTRODUCTION TO MATHEMATICAL METHODS

This subject is designed to prepare you for Senior Mathematical Methods. The rigor has increased significantly with the introduction of the new senior syllabuses therefore Year 10 is your risk-free opportunity to attempt Mathematical Methods. This subject includes subject matter from the 10/10A curriculum as well as elements from the Senior Mathematical Methods Unit 1 and 2. If you are pursuing a career in Engineering, Science, Economics or Medicine, Mathematical Methods **may** be a university prerequisite hence you must do year 10 Mathematical Methods to select it in Senior. **Senior Mathematical Methods will require on average 1 hour of study per night.**

Subject Matter (snapshot)	Linear and Non-Linear functions <ul style="list-style-type: none"><li>• Cubics</li><li>• Logarithms</li><li>• Quadratics</li><li>• Transformation</li><li>• Function notation</li></ul> Trigonometry <ul style="list-style-type: none"><li>• Sine and cosine rule</li></ul>	Statistics and Probability <ul style="list-style-type: none"><li>• Independent and dependent events</li></ul> Geometry <ul style="list-style-type: none"><li>• Properties of circles</li><li>• Mensuration</li></ul> Financial Maths <ul style="list-style-type: none"><li>• Compound interest</li><li>• Growth and decay</li></ul>
Study time	Minimum 30 minutes a night on average	
Possible career pathways	Engineering, Science, Economics and Medicine	
Senior cut-off for Methods (to select in Senior)	B-	

## INTRODUCTION TO GENERAL MATHEMATICS

This subject is an opportunity for students to revisit key mathematical concepts they may have missed from previous years and a chance to experience the workload of senior General Mathematics. The course covers key content descriptors from Year 9, all from Year 10 and some subject matter from Unit 1 and 2 from the General Mathematics syllabus. The focus is workload. The complexity of the Mathematics is accessible to most students, but the sheer amount of content can be challenging. 10 General Mathematics is a risk-free opportunity for students to try new study and revision techniques without having to combat the complexity of the mathematics. If a student is interested in going to university and **does not need Mathematical Methods**, then it is strongly recommended General Mathematics be selected.

Subject Matter (snapshot)	Linear equations <ul style="list-style-type: none"> <li>• Solve</li> <li>• Plot</li> <li>• Simultaneous equations</li> </ul> Trigonometry <ul style="list-style-type: none"> <li>• SOHCAHTOA</li> <li>• Sine and cosine rule</li> </ul> Mensuration <ul style="list-style-type: none"> <li>• Area, volume and capacity</li> </ul>	Statistics and Probability <ul style="list-style-type: none"> <li>• Data displays</li> <li>• Excel spreadsheeting</li> </ul> Geometry <ul style="list-style-type: none"> <li>• Properties of regular shapes</li> </ul> Financial Maths <ul style="list-style-type: none"> <li>• Compound interest</li> <li>• Simple interest</li> </ul>
Study time	Average 2 hours a week	
Possible career pathways	Commerce, Paramedicine, Arts, Psychology, Education, Health Sciences, <b>Electrician</b>	
Senior cut-off for General (to select in senior)	C	

## INTRODUCTION TO ESSENTIAL MATHEMATICS

This subject is designed for students who may not pursue an ATAR pathway or who are set on doing a trade during or after school. This subject is invite only and focuses on key mathematical concepts from Year 7 up. The purpose is to fill mathematical gaps in preparation for Senior Mathematics.

# Faculty of Science and Health

At the completion of Year 9, Iona students have completed the necessary objectives of the ACARA science syllabus. This provides students the choice to select a science subject that best suits their interests and future pathways. Students have the choice of selecting either one or both of the two science electives: Physical Science and Life Science.

If students are considering Senior sciences, it is essential that they select at least one of the two options. The Physical Science course provides a foundation for both Chemistry and Physics. Students will not be accepted into these senior courses without achieving success in the Year 10 Physical Science elective. The Life Science elective course provides a foundation to two senior science courses: Biology and Marine Studies. It is advised that students who are considering these Senior subjects select this course. The College recognises that in Year 10 students can only choose three electives to help shape their choices moving forward into Year 11. If a student did not wish to select two science electives but was contemplating Senior courses covering more than one science, it would be acceptable to just choose Physical Science. This would allow them to develop the important cognitive skills to succeed in all Senior sciences.

## PHYSICAL SCIENCE

(Elective Subject)

Physical Science serves as a foundation subject to one of two Senior sciences:

- Chemistry
- Physics

The course structure reflects the nature of these two Senior sciences and allows students to develop the necessary skills and cognitions to best prepare them for Year 11.

The course covers a variety of topics including thermodynamics, atomic structure, nuclear science, stoichiometry, force and motion. The assessments are varied and include: Student Experimental reports, Data tests, Research investigations and written examinations.

The course focuses on acquiring background knowledge relating to the topics and applying this to the relevant scientific skills and processes. There is an emphasis on collating and analysing data to reveal meaningful trends and patterns. It is designed to suit the student that is passionate about science, and it is recommended that students would have at least a C+ at the completion of Year 9.

## **LIFE SCIENCE**

(Elective Subject)

Life Science serves as a foundation subject to one of three Senior sciences:

- Biology
- Marine Studies

The course structure reflects the nature of all three Senior sciences and allows students to develop the necessary skills and cognitions to best prepare them for Year 11. The course covers a variety of topics including: cell biology, homeostasis, biotechnology, oceanography, biodiversity, neuroscience and psychology. The assessments are varied and include: Student Experimental reports, Field work studies, Research reports and written examinations.

The course focuses on acquiring background knowledge relating to the topics and applying this to the relevant scientific skills and processes. There is an emphasis on collating and analysing data to reveal meaningful trends and patterns. It is designed to suit the student that is passionate about sciences, and it is recommended that students would have at least a C+ at the completion of Year 9.

## **PHYSICAL EDUCATION**

(Elective Subject)

Physical Education is a course of study consisting of two units each containing two topics.

- Unit One: Topic 1 is Energy Systems with Touch Football
- Unit One: Topic 2 is Tactical Awareness with Football
- Unit Two: Topic 1 is Biomechanics with Basketball
- Unit Two: Topic 2 is Equity and Access with Badminton

Designed to engage students wanting to continue towards Senior Physical Education in Years 11 and 12. The aim of Year 10 Physical Education is to provide foundational learning experiences that pupils can then use within the senior course. Students learn through the integration of video analysis, GPS, Heart rate and fitness testing technology essential in the study of exercise science.

Each topic is marked out of 25 marks, with 8 marks used to assess the practical demonstrations within each chosen activity. A much greater emphasis has been placed on the theoretical understanding of this course due to the nature of the new syllabus in Year 11 and 12. It is recommended that pupils should have a keen interest in both sport and biology to attain success in this elective subject.

**\* Students cannot study both Physical Education and Certificate II in Sports Coaching.**

## **CERTIFICATE II SPORTS COACHING**

(Elective Subject)

Certificate II in Sports Coaching is a course of study consisting of five areas of study.

### Introduction to Training and Fitness

- Gym induction and Training
- Program Design

### Fundamental Motor Skills

- Conduct sports coaching sessions with foundation-level participants

### Planning and Delivering Coaching Sessions

- Work in a community coaching role
- Provide equipment for activities

### Workplace Health and Safety and Emergencies

- Work safely
- Respond to emergency situations
- Maintain sport, fitness and recreation facilities

### First Aid Certificate

- Provide first aid and CPR

This course is designed to engage students that have an interest in sports, coaching and fitness. This course will allow students to try a Certificate based course through Fit Education's online portal whilst still having practical lessons to experience coaching, training in the gym and playing sports.

As an alternative to the Physical Education elective, the Sports Coaching elective is suited to students wanting to do a Certificate III in Fitness in their Senior years or Applied Sport and Recreation course. The Certificate in Sports coaching offers up to 4QCE points and is a competency-based course, meaning assessment is ongoing throughout the year, with no formal assessment submissions.

**\* There will be an added cost of \$500 to do this subject.**

**\* This is a new subject being offered in 2024 and is dependent on final numbers.**

**\* Students cannot study both Physical Education and Certificate II in Sports Coaching.**

# Faculty of Pathways

## Senior Pathways Studies

(Core Subject)

The Year 10 Senior Pathways Studies (SPS) course aligns to the QCAA short course in 'Career Education.' Career development is an ongoing process of interaction between an individual and the environment that surrounds them. As the nature of work changes and students face challenges and opportunities, career education aims to develop the skills and knowledge to effectively manage career pathways. The course in SPS focuses on the knowledge, processes and skills that students in the senior phase of learning, i.e., Years 10, 11 and 12, need in order to develop effective career development and management practices.

Students will learn what they need to adapt to multiple transitions in work and life and use opportunities to transfer their developing abilities to a range of work-related and career contexts and activities. The course aims to improve students' learning skills so that they become independent, lifelong learners.

The assessment undertaken in Year 10 Senior Pathways Studies, and with a satisfactory result, will contribute one credit toward the student's Queensland Certificate of Education (QCE). The QCE is a senior school qualification certifying a student has successfully completed school at a Year 12 level.

Term 1	GETTING TO KNOW YOU
Term 2	EMPLOYABILITY
Term 3	MAKING MY PATHWAY CHOICES
Term 4	SKILLS FOR WORK