

# **RANGITOTO COLLEGE**



## **INTERNATIONAL BACCALAUREATE**



## **SUBJECT SELECTION GUIDE**



## Group 1: Language A

### ❖ Literature - English

This is an exciting and rigorous course in the study of literature in their mother tongue or for students who have significant experience using English or Chinese in an academic context. You will be reading across eras, countries, genres and author genders to form an international, but truly personal, view of the world through literature. You will explore literature critically through close reading, analytical writing, and deep discussion. Additionally, you will make connections between literary works, your personal experiences, and the world around you, and use that understanding to challenge your way of thinking.

Available at **Standard & Higher Level:**

- Standard Level : You will be required to study 9 literature texts.
- Higher Level: You will be required to study 13 literature texts.

#### **Entry requirements:**

For both Standard and Higher levels, you need to be able to work independently and collaboratively, be well-organised, an avid reader and enjoy discussing literature.

- Standard Level: NCEA level 1, Merits with some Achieved for both internal and external standards, IB MYP or PYP 3-5, or an equivalent satisfactory level from another curriculum.
- Higher Level: NCEA level 1 at only Merit and Excellence in both internals and externals. IB MYP or PYP 5-7, or an equivalent excellent level from another curriculum.

### ❖ Language & Literature - English, Mandarin

This is a rigorous and diverse course for students to study in their mother tongue or who have significant experience using English or Chinese in an academic context. The course involves the study of texts, both literary and non-literary, and provides a focus for developing an understanding of how language works to create meanings in a culture, as well as in particular texts. All texts may be understood according to their form, content, purpose and audience, and through the social, historical, cultural and workplace contexts that produce and value them.

Available at **Standard & Higher Level:**

- Standard Level : You will be required to study 4 literature texts,
- Higher Level: You will be required to study 6 literature texts.

### **Entry requirements:**

For both Standard and Higher levels you need to be able to work independently and collaboratively, be well-organised, an avid reader and enjoy discussing literature and aspects of language.

#### ➤ Standard Level:

**English** - NCEA level 1 at Merit with some Achieved either in internals and externals, IB MYP/PYP 3-5, or equivalent satisfactory level from another curriculum.

**Chinese (Mandarin)** - Mandarin mother tongue, ideally having completed 初三 (last year of junior high school) in a Mandarin working language school, or an equivalent fluency level.

#### ➤ Higher Level:

**English** - NCEA level 1 at only Merit and Excellence in both internals and externals. IB MYP or PYP 5-7, or an equivalent excellent level from another curriculum.

**Chinese (Mandarin)** - Mandarin mother tongue, ideally having completed 初三 (last year of junior high school) in a Mandarin working language school, and able to cope with 高中 (higher secondary school) curriculum.

## **❖ Self Taught Language A**

Students can choose to self-study either Literature course in their mother tongue language. The course structure is the same as that outlined above. Recently, students have undertaken Literature A courses in Spanish, French, Korean, Russian, Italian and Portuguese.

This course requires the student to source a suitable teacher/tutor in their chosen language to support them with the course. The teacher/tutor will not be provided by the school, however, guidance is given where possible. As such, the self-taught option requires students to be highly motivated, organised and capable of working well independently. This option requires approval from the IB Diploma Coordinator.

Available at: **Standard level** only.



## Group 2: Language B

### French, Spanish, Mandarin, English, Japanese

These language acquisition courses are designed to provide students with the necessary skills and intercultural understanding to enable them to communicate successfully in an environment where the language studied is spoken. Students will study three core areas: Communication and Media, Global Issues, and Social Relationships. In addition, you will select, in consultation with your teacher, **two** further topics from: Cultural Diversity, Customs & Traditions, Health, Leisure, or Science & Technology.

Available at **Standard & Higher Level**:

- Beginner (Ab-initio) Level: Spanish, Mandarin, French, Japanese
- Standard & Higher Level: Spanish, Chinese, French, English, Japanese

**Ab-initio** is designed for students with no previous learning of that language.

**Standard** and **Higher level** are suitable for students with some previous learning of that language.

### Entry requirements:

- Ab-initio: NIL
- Standard Level: NCEA level 1 at Merit with some Achieved either in internals and externals, or language ability from other sources.
- Higher Level: NCEA level 1 with Excellence in both internals and externals, or language ability from other sources.



## Group 3: Individuals and Societies

### **Business & Management, Economics, Geography, History, Psychology.**

The study of Individuals and Societies, more commonly known as the human sciences or social sciences, explores the interactions between humans and their environment in time, space and place. In the social science courses, you will be encouraged to develop an international perspective, concern for global issues, and raise awareness of your personal responsibilities at a local, national and international level.

#### **❖ Business Management**

The Business Management course is designed to develop your knowledge and understanding of business management theories, as well as your ability to apply a range of analytical tools. You will learn to analyse, discuss and evaluate business activities at local, national and international levels. In this course, you will cover a range of organisations from all sectors, as well as the socio-cultural and economic contexts in which those organisations operate. The course explores the key characteristics of business organisations and their environments as well as the business functions of human resource management, finance and accounts, marketing, and operations management. Through the exploration of six underpinning concepts - change, culture, ethics, globalization, innovation, and strategy - the course will enable you to develop a holistic understanding of today's complex and dynamic business environment.

Available at **Standard & Higher Level:**

➤ Standard & Higher Level: Students of Business Management are presented with a common syllabus.

#### **Entry requirements:**

➤ Standard & Higher Level: Merit/Excellence in NCEA level 1 English, Accounting and/or Business studies. IB MYP or PYP 5-7, or an equivalent level from another curriculum. No previous Business experience is required, however, this is advantageous for HL.

#### **❖ Economics**

The study of Economics is essentially about dealing with scarcity, resource allocation and the methods and processes by which choices are made in the satisfaction of human wants. In this course, you will apply theories of microeconomics, which deals with economic variables affecting individuals, firms and markets, and macroeconomics, which deals with economic variables affecting countries, governments and societies, and how they are to be applied to real world issues. Prominent among these issues are fluctuations in economic activity, international trade, economic development and environmental sustainability.

Available at **Standard & Higher Level:**

➤ Standard & Higher Level: Students of Economics are presented with a common syllabus, with a Higher Level extension in some topics.

**Entry requirements:**

➤ Higher Level: Merit/Excellence in NCEA level 1 English, Maths and/or Economics. No previous economics experience is required, however, this is advantageous for HL.

## ❖ Geography

Geography is a dynamic course, firmly grounded in the real world and focussing on the interactions between individuals, societies and the physical environment. It seeks to identify trends and patterns in these interactions and examines the processes behind them. It also investigates the way that people adapt and respond to change and evaluates management strategies associated with such change. The course integrates both physical and human geography, and you will learn elements of both scientific and socio-economic methodologies.

Available at **Standard & Higher Level:**

➤ Students study a common core and optional themes.

➤ Standard Level: You will study 2 optional themes.

➤ Higher Level: You will study 3 optional themes, providing further breadth and depth.

**Entry requirements:**

➤ Standard & Higher Level: Merit/Excellence in NCEA level 1 Geography, History, and/or English. No previous Geography experience is required, however this would be advantageous for those taking the subject at Higher Level. IB MYP or PYP 5-7, or an equivalent excellent level from another curriculum.

## ❖ History

History is more than the study of the past, it is the process of recording, reconstructing and interpreting the past through the investigation of a variety of sources to enable students to gain an understanding of themselves and others in relation to the world, both past and present. The History course is an exploratory one that poses questions without providing definitive answers. The emphasis of the course is on world history and on making connections and comparisons between different regions, cultures, political systems and national traditions. The two key topics covered will be: Autocratic Leaders (Hitler, Stalin, Mao), and Independence Movements (Ireland, India, Zimbabwe). Students will focus on different case studies, and for their prescribed topic, will be required to consider sources in the context of Conflict and Intervention (Rwanda & Kosovo) or

the move to Global War (Germany, Japan, Italy). Students who have chosen History at Higher Level will study the additional regional history topic of Oceania, looking at the impact of the Chinese Revolution in the 20<sup>th</sup> Century and the establishment of New Zealand and Australia as British colonies, as well as the impact of World War Two in SouthEast Asia.

Available at **Standard & Higher Level:**

- Standard Level: Two key topics; Autocratic leaders, and Independence movements.
- Higher Level: Two key topics and an in-depth research-based study of your choice, related to a period of history and specific to a particular world region, centred around critical analysis of historical sources.

**Entry requirements:**

- Standard and Higher Level: Merit/Excellence in NCEA level 1 English and/or History. No previous History experience is required, however this would be advantageous. An excellent standard of writing is required for those taking Higher Level. IB MYP or PYP 5-7, or an equivalent excellent level from another curriculum.

## ❖ Psychology

Psychology examines the interaction of biological, cognitive and sociocultural influences on human behaviour. Students undertaking the course can expect to develop an understanding of how psychological knowledge is generated, developed and applied. This will allow students to have a greater understanding of themselves, and appreciate the diversity of human behaviour. The ethical concerns raised by the methodology and application of psychological research are also key considerations of the IB psychology course.

Available at **Standard & Higher Level:**

Standard & Higher Level: Students of Economics are presented with a common syllabus, with:

- Standard Level: studying one option in depth
- Higher Level: studying two options in-depth and qualitative research methodology.

**Entry requirements:**

- Standard & Higher Level: Merits/Excellence in NCEA level 1 English and/or History. No previous Psychology experience is required.



## Group 4: Sciences

### Biology, Chemistry and Physics

Through studying Biology, Chemistry or Physics, students will become aware of how scientists work and communicate with each other. While the scientific method may take on a wide variety of forms, it is the emphasis on a practical approach through experimental work that characterises the science subjects.

All Group 4 Sciences are available at **Standard** and **Higher** level.

- Standard Level: undertake a common core syllabus.
- Higher Level: students are required to study the core syllabus topics in greater breadth and depth, and are required to study ONE additional option topic.

#### ❖ Biology

Biology is the study of life. In the Biology course, you will gain a greater understanding of the living world at all levels, using many different approaches and techniques. At one end of the scale is the cell, its molecular construction and complex metabolic reactions. At the other end of the scale, biologists investigate the interactions that make whole ecosystems function. In this course, you will study 6 core topics: Cell Biology, Molecular Biology, Genetics, Ecology, Evolution & Biodiversity, and Human Physiology. If taken at Higher Level you will go into greater depth, learning about Nucleic Acids, Metabolism, Cell Respiration & Photosynthesis, Plant Biology, Evolution and Animal Physiology. Additionally, in consultation with your teacher, you will study one optional topic from: Human Physiology, Neurobiology and Behaviour, Biotechnology, or Ecology.

#### Entry requirements:

- Standard Level: NCEA level 1 ideally with Merits or Excellences in all Biology standards. IB MYP/ PYP 3-5, or equivalent satisfactory level from another curriculum.
- Higher Level: Double science at NCEA level 1 and/or Merits and Excellences in all Biology internals and externals. IB MYP or PYP 5-7, or an equivalent excellent level from another curriculum.

#### ❖ Chemistry

The Chemistry course combines academic study with the acquisition of practical and investigational skills. It is often called the central science, as chemical principles underpin both the physical environment in which we live and all biological systems. Apart from being a subject worthy of study in its own right, Chemistry is a prerequisite for many other courses in higher education, such as Medicine, Biological Science and Environmental Science. During the



Chemistry course, you will learn the essential principles of the subject which include: Stoichiometric Relationships, Atomic Structure, Periodicity, Chemical Bonding & Structure, Energetics, Chemical Kinetics, Equilibrium, Acids & Bases, Redox Processes and Organic Chemistry, as well as Measurement, Processing and Analysis of Data. At Higher Level, in consultation with your teacher, you will also select an optional topic to study between Energy or Biochemistry.

**Entry requirements:**

- Standard Level: NCEA level 1 ideally with Merits or excellence in all Chemistry standards. IB MYP/ PYP 3-5, or equivalent satisfactory level from another curriculum.
- Higher Level: Excellence in all Chemistry internal and external assessments at NCEA level 1. IB MYP or PYP 5-7, or an equivalent excellent level from another curriculum.

## ❖ Physics

Physics is the most fundamental of the experimental sciences, as it seeks to explain the universe itself, from the very smallest particles to the vast distances between galaxies. By studying Physics, you will be provided with opportunities to develop manipulative skills, design investigations, collect data, analyse results, and evaluate and communicate your findings. During the Physics course, you will learn the essential principles of the subject which include: Measurements and Uncertainties, Mechanics, Thermal Physics, Waves, Electricity and Magnetism, Circular Motion and Gravitation, Atomic, Nuclear and Particle Physics, and Energy Production. Those that embark on the Higher Level course will also explore Wave Phenomena, Fields, Electromagnetic Induction, Quantum and Nuclear Physics, and, in consultation with your teacher, you will also select one optional topic to study from four options: Relativity, Engineering Physics, Imaging, or Astrophysics.

**Entry requirements:**

As a student of Physics, you will be able to work independently, show initiative and actively partake in class discussions and questioning opportunities regularly.

- Standard Level: Merit or Excellence in Mechanics (90940) & Algebra (91027) at NCEA level 1. IB MYP/ PYP 3-5, or equivalent satisfactory level from another curriculum.
- Higher Level: Double science course, with Excellence in: Heat (90939), Electricity (90937), Mechanics (90940) and Algebra (91027) at NCEA level 1. IB MYP or PYP 5-7 for Mathematics and Science, or equivalent excellent levels from another curriculum.



## Group 5: Mathematics

### Analysis and Approaches, Interpretation & Application

The nature of Mathematics can be summarised in a number of ways. For example, it can be seen as a well-defined body of knowledge, as an abstract system of ideas, or as a useful tool. For many people, it is probably a combination of these, but there is no doubt that mathematical knowledge provides an important key to understanding the world in which we live.

There are 2 Mathematics courses available to study: Analysis & Approaches, or Interpretation & Application.

#### ❖ Mathematics: Analysis & Approaches (AA)

This course recognizes the need for analytical expertise in a world where innovation is increasingly dependent on a deep understanding of Mathematics. This course includes topics that are both traditionally part of a pre-university mathematics course (for example, Functions, Trigonometry, Calculus) as well as topics that are amenable to investigation, conjecture and proof, for instance the study of sequences and series (HL and SL), and proof by induction (HL).

The course allows the use of technology, however, there is a strong emphasis on the ability to construct, communicate and justify correct mathematical arguments.

Students who choose this course should be comfortable in the manipulation of algebraic expressions and enjoy the recognition of patterns and understand the mathematical generalisation of these patterns. Students who wish to take this course at Higher Level will have strong algebraic skills and the ability to understand simple proof, enjoy spending time with problems and get pleasure and satisfaction from solving challenging problems.

#### Entry requirements:

You must be a self-motivated learner who is able to work independently. You will be well organised, with good writing and research skills.

➤ Standard Level: 11MTX course in year 11, with Merits or Achieved at NCEA for all level 1 standards. Excellences and Merits for the calculus strands is desirable. IB MYP/ PYP 3-5, or equivalent satisfactory level from another curriculum.

➤ Higher Level: 12MTX with Excellences and some Merits at NCEA level 1. IB MYP/PYP 6-7, or equivalent satisfactory level from another curriculum.

## ❖ Mathematics: Interpretation & Application (AI)

This course recognizes the increasing role that mathematics and technology play in a diverse range of fields in a data-rich world. As such, the course makes extensive use of technology to allow students to explore and construct mathematical models. The focus is on developing mathematical thinking in the context of a practical problem, using technology to justify conjectures.

Students who choose this subject should enjoy seeing mathematics used in real-world contexts, and to solve real-world problems. Most students take this course at SL.

### **Entry requirements:**

➤ Standard Level: 11 MTE or 11MTX course in year 11, Merit or Achieved for all NCEA level 1 standards. Merit or Excellence is desirable for the statistics standards. IB MYP/PYP 3-5, or equivalent satisfactory level from another curriculum.

➤ Higher Level: 11MTX with Excellence and some Merits at NCEA level 1. IB MYP/PYP 6-7, or equivalent satisfactory level from another curriculum.



## Groups 6: Arts

### Music, Visual Art

The emphasis of the arts courses are on creativity in the context of disciplined, practical research into the relevant genres. In addition, each subject is designed to foster critical, reflective and informed practice, and help students understand the dynamic and changing nature of the arts, explore the diversity of arts across time, place and cultures, and express themselves with confidence and competence.

#### ❖ Music

In this course you will be supported to further develop your musical skills through solo performance and composition, to develop your perceptual skills in response to a wide variety of music (classical, jazz etc.) and to explore the diversity of music throughout the world. The music course aims to assist students in developing their potential as a musician, both personally and collaboratively. During the music course, you will study musical perception and actively listen to a wide range of music from different parts of the world, musical cultures and time periods. You will learn about musical elements, including form and structure, notations, musical terminology, and context. to assist you to develop aural perception and understanding of music.

Available at **Standard & Higher Level:**

Both Standard and Higher level students study musical perception.

- Standard Level: ONE of three options: Creating, Solo performing, Group performing.
- Higher Level: Present both Creating and Solo performing.

#### Entry requirements:

- Standard Level: Basic knowledge of music theory (min Grade 2) but formal music study is not essential. Two to three years' experience on an instrument prior to starting the IB course, or experience of playing/singing in a group. Students must have individual instrumental or vocal tuition throughout the two-year Diploma course.
- Higher Level: Music with Merit or Excellence in all internal and external tasks at NCEA Level 1, IB MYP or PYP 5-7, or an equivalent excellent level from another curriculum. Students must also have ongoing individual instrumental or vocal tuition throughout the two- year course. *\* An interview with the HOD of Music is necessary for all applicants.*

#### ➤ Visual art

The Visual arts are an integral part of everyday life, permeating all levels of human creativity, expression, communication and understanding. Studying visual arts students are encouraged to challenge their creative and cultural expectations and boundaries. The course is thought provoking and will help you to develop analytical skills in problem-solving and divergent thinking, while working toward technical proficiency and confidence as creators of art. In

addition to exploring and comparing visual arts from different perspectives and in different contexts, you will be required to engage in, experiment with, and critically reflect upon a wide range of contemporary practices and media.

Available at **Standard & Higher Level:**

➤ Standard & Higher Level: Students of Visual Art are presented with a common syllabus, with the higher level course being of greater breadth and going into more depth in each topic.

**Entry requirements:**

Achieved grades in English or another literacy rich subject and ...

➤ Standard Level: Mostly Merits in NCEA Level 1 Art, IB MYP or PYP 3-5, or equivalent.

➤ Higher Level: Merit and Excellence in NCEA level 1 Art IB MYP or PYP 6-7, or equivalent.

*\* An interview with the HOD of Art is necessary for all HL applicants.*



## **The common CORE subjects**

The CORE is compulsory for ALL students completing the IB Diploma.

### **❖ Extended Essay (EE)**

The Extended Essay offers the opportunity for IB students to investigate a topic of special interest, usually one of the student's six Diploma Programme subjects, and acquaints them with the independent research and writing skills expected at university. It is intended to promote high-level research and writing skills, intellectual discovery and creativity, resulting in an essay of 4000 words and equating to approximately 40 hours of work.

This component of the CORE provides excellent preparation for necessary university writing tasks. Additionally, in countries where normally interviews are required prior to acceptance for employment or for a place at university, the extended essay has proved to be a valuable stimulus for discussion.

### **❖ Theory of Knowledge (ToK)**

The interdisciplinary Theory of Knowledge course is intended to encourage students to reflect on the huge cultural shifts worldwide around the digital revolution and the information economy. The extent and impact of the changes vary greatly in different parts of the world, but everywhere their implications for knowledge are profound. Theory of Knowledge encourages critical thinking about knowledge itself and aims to help young people make sense of what they encounter. In this course, students carry out activities and discussions, share ideas with others and to listen to and learn from what others think to help them to discover and express their views on knowledge issues. During this process, students' thinking and their understanding of knowledge as a human construction are shaped, enriched and deepened. Connections may be made between knowledge encountered in different Diploma Programme subjects, in Creativity, Action, Service experience or in Extended Essay research; distinctions between different kinds of knowledge may be clarified. Students are required to complete two assessment tasks: an essay and a presentation. Both tasks have at their centre reflection on knowledge issues.

### **❖ Creativity, Activity, Service (CAS)**

Creativity, Activity, Service is at the heart of the Diploma Programme, involving students in a range of activities that take place alongside their academic studies throughout the IB Diploma Programme. The component's three strands, often interwoven with particular activities, comprise of:

- **Creativity**—arts and other experiences that involve creative thinking.
- **Activity**— physical exertion contributing to a healthy lifestyle, complementing academic work elsewhere in the IB Diploma Programme.
- **Service**—an unpaid and voluntary exchange that has a learning benefit for the student.

CAS encourages students to be involved in activities as individuals and as part of a team that take place in local, national and international contexts. The course enables students to enhance their personal and interpersonal development as well as their social and civic development, through experiential learning, lending an important counterbalance to the academic pressures of the rest of the IB. Although Creativity, Activity, Service is not formally assessed, students need to reflect on their activities and demonstrate compliance against the 7 key Learning Outcomes.