



مدارس الفارس العالمية
AI FARIS International School

DIPLOMA PROGRAMME HANDBOOK 2025 – 2026



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Director's Message

Dear Parents & Students,

FIS curriculum includes a solid foundation of core subjects and courses of computer skills, art, French and physical education, providing your child with a well-rounded and diverse experience. At the same time, we value the importance of our culture and heritage and emphasize a steady Arabic language course. We have integrated the latest instructional programs and technology into our curricula.

Our school provides and sets high-quality academic standards. We are observing the inquiry and researched-based curriculum, in conjunction with the International Baccalaureate Programme (IB), which consists of the PYP, MYP, and DP programmes. Moreover, we continue to implement innovative STEAM (Science Team Engineering Art Math) activities.

We believe that establishing a cohesive bond between parents, students, and the school bridges the gap between our children's potential and their actual achievements. We encourage parents' participation and sincerely value their comments and suggestions.

Warm Regards,

Sahar Al Marzouki

IB Mission Statement

The International Baccalaureate aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect. To this end the organization works with schools, governments and international organizations to develop challenging programmes of international education and rigorous assessment. These programmes encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right.

Our Mission

As a school committed to excellence, Al Faris International School strives to provide a rigorous programme based on measurable standards with a commitment to improving Teaching and Learning.

Al Faris International School aims to foster a diverse and inclusive community that supports, enhances, and nurtures the learners' own natural desire through approaches to learning skills (ATL skills) that can lead to lifelong learning, hence cultivating them into global and ethical citizens in a sense of compassion for others in a world of differences.

Our Vision

Al Faris International School envisions a school built on academic excellence, mutual trust, strong commitment and cooperation between staff, students and parents. Our dedication to provide incomparable, yet affordable, education of the highest standards, in a safe and motivating environment using the most advanced and effective resources, is driven by the desire to produce creative, independent leaders that will contribute positively to the global community.

IB Learner Profiles

The aim of all IB programmes is to develop internationally minded people who, recognizing their common humanity and shared guardianship of the planet, help to create a better and more peaceful world.

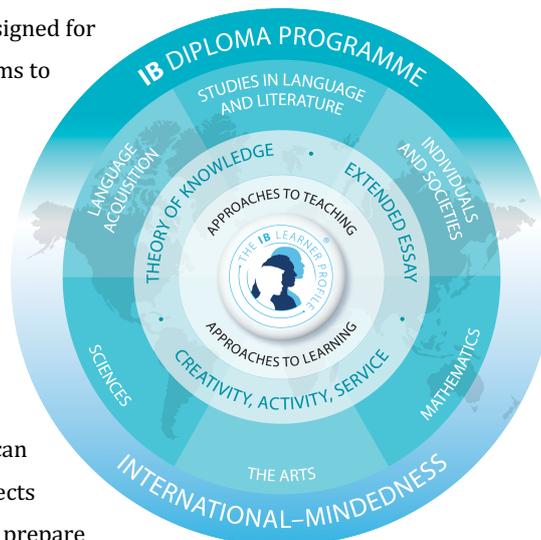
As IB learners, FIS students strive to be:

IB LEARNER PROFILES	
INQUIRERS	We nurture our curiosity, developing skills for inquiry and research. We know how to learn independently and with others. We learn with enthusiasm and sustain our love of learning throughout life.
KNOWLEDGEABLE	We develop and use conceptual understanding, exploring knowledge across a range of disciplines. We engage with issues and ideas that have local and global significance.
THINKERS	We use critical and creative thinking skills to analyse and take responsible action on complex problems. We exercise initiative in making reasoned, ethical decisions.
COMMUNICATORS	We express ourselves confidently and creatively in more than one language and in many ways. We collaborate effectively, listening carefully to the perspectives of other individuals and groups.
PRINCIPLED	We act with integrity and honesty, with a strong sense of fairness and justice, and with respect for the dignity and rights of people everywhere. We take responsibility for our actions and their consequences.
OPEN-MINDED	We critically appreciate our own cultures and personal histories, as well as the values and traditions of others. We seek and evaluate a range of points of view, and we are willing to grow from the experience.
CARING	We show empathy, compassion and respect. We have a commitment to service, and we act to make a positive difference in the lives of others and in the world around us
RISK-TAKERS	We approach uncertainty with forethought and determination; we work independently and cooperatively to explore new ideas and innovative strategies. We are resourceful and resilient in the face of challenges and change.
BALANCED	We understand the importance of balancing different aspects of our lives – intellectual, physical, and emotional – to achieve well-being for ourselves and others. We recognize our interdependence with other people and with the world in which we live.
REFLECTIVE	We thoughtfully consider the world and our own ideas and experience. We work to understand our strengths and weaknesses in order to support our learning and personal development.

What is the Diploma Programme?

The Diploma Programme (DP) is a rigorous pre-university course of study designed for students in the 16 to 19 age range. It is a broad-based two-year course that aims to encourage students to be knowledgeable and inquiring, but also caring and compassionate. There is a strong emphasis on encouraging students to develop intercultural understanding, open-mindedness, and the attitudes necessary for them to respect and evaluate a range of points of view.

The course is presented as six academic areas enclosing a central core. Students study two modern languages (or a modern language and a classical language), a humanities or social science subject, an experimental science, mathematics and one of the creative arts. Instead of an arts subject, students can choose two subjects from another area. It is this comprehensive range of subjects that makes the Diploma Programme a demanding course of study designed to prepare students effectively for university entrance. In each of the academic areas students have flexibility in making their choices, which means they can choose subjects that particularly interest them and that they may wish to study further at university. Normally, three subjects (and not more than four) are taken at higher level (HL), and the others are taken at standard level (SL). The IB recommends 240 teaching hours for HL subjects and 150 hours for SL. Subjects at HL are studied in greater depth and breadth than at SL.



In addition, three core elements—the extended essay, theory of knowledge and creativity, activity, service—are compulsory and central to the philosophy of the programme.

Assessment

At the end of the two-year programme, candidates are assessed both **internally** and **externally** in ways that measure individual performance against stated curriculum and assessment objectives for each subject.

In all subjects, at least some of the assessment is carried out internally by teachers, who mark individual pieces of work produced as part of a course of study. Examples include oral exercises in language subjects, projects, student portfolios, reports, class presentations, practical laboratory work, mathematical investigations, and artistic performances. Some assessment tasks are conducted and overseen by teachers but are then marked externally by examiners. Examples include written assignments or tasks for language subjects in groups 1 and 2, the essay for the theory of knowledge, and the extended essay.

Because of the greater degree of objectivity and reliability provided by the standard examination environment, externally marked examinations form the larger share of the assessment for most subjects. The grading system is criterion-related as results are determined by performance against set standards; validity, reliability and fairness are the watchwords of the Diploma Programme assessment strategy.

Approaches to Learning (ATL Skills)

A unifying thread throughout the PYP, MYP, and DP programmes are approaches to learning (ATL) skills, which provide the foundation for independent learning and encourage the application of students' knowledge and skills in unfamiliar contexts. Developing and applying these skills help students learn how to learn. Students must develop the following skills by the end of the programme: communication, social, self-management, research, and thinking.

Subject Groups

As can be seen in the DP model on p. 6, the Diploma Programme consists of six subject groups:

- Group 1: Studies in Language & Literature
- Group 2: Language Acquisition
- Group 3: Individuals & Societies
- Group 4: Sciences
- Group 5: Mathematics
- Group 6: The Arts

Full diploma candidates are required to take one subject from each of Groups 1 to 5. Since we currently do not offer arts at our school, students may select a second subject from either Group 3 or Group 4.

Assessment

Each of the six IB subjects will be marked using the IB 7-point scale. These marks are interpreted as follows:

- 7 – Excellent
- 6 – Very Good
- 5 – Good
- 4 – Satisfactory
- 3 – Mediocre
- 2 – Poor
- 1 – Unacceptable
- N – No Score Awarded (due to failure to submit work)

Core Subjects

The core subjects are also a requirement for the full diploma. They are however individually recognized as stand-alone offerings, whereby course certificate candidates (i.e. students taking selected IB courses and will receive a certificate for these selected courses only) may select at least one of the core subjects during their two-year IBDP programme. A brief description of the core subjects are as follows:

- The **extended essay (EE)** has a prescribed limit of 4,000 words. It offers the opportunity to investigate a topic of individual interest and acquaints students with the independent research and writing skills expected at university.
- The interdisciplinary **theory of knowledge (TOK)** course is designed to provide coherence by exploring the nature of knowledge across disciplines, encouraging an appreciation of other perspectives.
- Participation in the **CAS programme (creativity, activity, and service)** encourages candidates to be involved in artistic pursuits, sports, and community service work. The programme fosters students' awareness and appreciation of life beyond the academic arena.

CAS Assessment

CAS is not formally assessed but students need to document their activities and provide evidence that they have achieved the seven learning outcomes.

- Students do not receive a CAS grade. CAS is pass or fail and you cannot receive an IB diploma without passing CAS.
- All CAS students are expected to maintain and complete a CAS portfolio as evidence of their engagement with CAS. The CAS portfolio is a collection of evidence that showcases CAS experiences and for student reflections; it is not formally assessed.
- Completion of CAS is based on student achievement of the seven CAS learning outcomes.

TOK & Extended Essay Assessment

Students will get assessed on two components of TOK:

- TOK Exhibition (completed by the end of Year 1)
- TOK Essay (completed by Term 2 of Year 2)

These are both **internally assessed** by our teachers, and the marks are then sent to the IB for moderation purposes. The Extended Essay is **externally assessed** by an IB examiner. Both the TOK and Extended Essay components are given a mark (A to E letter scale) that is entered in the Diploma Points Matrix below to award a possible maximum of 3 additional points that are added to students' Diploma score. Candidates who do not submit satisfactory work in either component will not receive an IB Diploma.

DIPLOMA POINTS MATRIX FOR TOK/EXTENDED ESSAY						
		EXTENDED ESSAY				
		Excellent A	Good B	Satisfactory C	Mediocre D	Elementary E
TOK	Excellent A	3	3	2	2	Failing Condition
	Good B	3	2	2	1	
	Satisfactory C	2	2	1	0	
	Mediocre D	2	1	0	0	
	Elementary E	Failing Condition				

Failing Conditions

- A student does not submit an extended essay and/or the two TOK components.
- If a student scores an E in either component, the diploma will not be awarded.

Awarding an IB Diploma

To be a successful IB Diploma student, it is necessary to be well organized and punctual. It is essential for students to manage their time appropriately and prioritize tasks efficiently. The importance of adhering to internal deadlines is paramount.

There is a maximum of 7 points available for each of the six required courses. In addition, there are 3 points available for the combination of TOK and the Extended Essay. Therefore, the maximum number of points available is 45.

In general, in order to receive the IB Diploma, a student must score at least a 4 in each subject, or a minimum total of 24 points. Earning a score of 24 points, however, does not always guarantee the awarding of an IB Diploma. The full criteria for earning the IB Diploma are enumerated below.

The IB Diploma will be awarded to a candidate whose total score is 24 or greater points, provided all of the following requirements have been met:

- Numeric grades have been recorded in all six subjects registered for the IB Diploma.
- All CAS requirements have been met.
- Grades A to D have been awarded for both Theory of Knowledge and the Extended Essay.
- There is no grade of 1 in any course.
- There is no grade of 2 in more than 2 courses.
- There is no grade of 3 in more than 3 courses.
- At least 12 points have been earned in HL courses (candidates who register for four HL courses must earn at least 12 points in their 3 highest scoring HL courses).
- At least 9 points have been earned in SL courses (candidates who register for two SL courses must earn at least 5 points in SL courses).
- The final award committee has not judged the candidate to be guilty of malpractice.

Course Selection at FIS

Students wishing to pursue the IB Diploma must take one class from each of Groups 1 – 5 as well as a sixth class either from Group 6 or a second class from Groups 3 and 4. The courses must be taken at the following levels:

- 3 Higher Level (HL) courses and 3 Standard Level (SL) courses
- 4 Higher Level (HL) courses and 2 Standard Level (SL) courses

In addition, all IB Diploma candidates must complete the requirements of the three core subjects.

We offer the following IB subjects at FIS:

COURSE SELECTION AT FIS		
SUBJECT GROUP	SUBJECTS OFFERED AT FIS	LEVEL
GROUP 1: Studies in Language & Literature	English A Language & Literature	<input checked="" type="checkbox"/> SL <input checked="" type="checkbox"/> HL
GROUP 2: Language Acquisition	Arabic B	<input checked="" type="checkbox"/> SL <input checked="" type="checkbox"/> HL
	Arabic ab initio	<input checked="" type="checkbox"/> SL
	French ab initio	<input checked="" type="checkbox"/> SL
GROUP 3: Individuals & Societies	Business	<input checked="" type="checkbox"/> SL <input checked="" type="checkbox"/> HL
	Economics on Pamoja*	<input checked="" type="checkbox"/> SL <input checked="" type="checkbox"/> HL
	Psychology on Pamoja*	<input checked="" type="checkbox"/> SL <input checked="" type="checkbox"/> HL
GROUP 4: Sciences	Biology	<input checked="" type="checkbox"/> SL <input checked="" type="checkbox"/> HL
	Chemistry	<input checked="" type="checkbox"/> SL <input checked="" type="checkbox"/> HL
	Physics	<input checked="" type="checkbox"/> SL <input checked="" type="checkbox"/> HL
	Computer Science	<input checked="" type="checkbox"/> SL <input checked="" type="checkbox"/> HL
GROUP 5: Mathematics	Mathematics Analysis & Approaches	<input checked="" type="checkbox"/> SL <input checked="" type="checkbox"/> HL
	Mathematics Applications & Interpretations on Pamoja*	<input checked="" type="checkbox"/> SL <input checked="" type="checkbox"/> HL
GROUP 6: The Arts	Film on Pamoja*	<input checked="" type="checkbox"/> SL

*Pamoja is an IB-authorized, online learning platform that enables students to take subjects that we do not offer at school. It relies heavily on independent learning. Pamoja charges students additional fees per subject on an annual basis.

English A Language & Literature Overview

Course Description & Aims

The language A: language and literature course aims at studying the complex and dynamic nature of language and exploring both its practical and aesthetic dimensions. The course will explore the crucial role language plays in communication, reflecting experience and shaping the world, and the roles of individuals themselves as producers of language. Throughout the course, students will explore the various ways in which language choices, text types, literary forms and contextual elements all effect meaning.

Through close analysis of various text types and literary forms, students will consider their own interpretations, as well as the critical perspectives of others, to explore how such positions are shaped by cultural belief systems and to negotiate meanings for texts.

The aims of studies in language and literature courses are to enable students to:

- engage with a range of texts, in a variety of media and forms, from different periods, styles and cultures
- develop skills in listening, speaking, reading, writing, viewing, presenting and performing
- develop skills in interpretation, analysis and evaluation
- develop sensitivity to the formal and aesthetic qualities of texts and an appreciation of how they contribute to diverse responses and open up multiple meanings
- develop an understanding of relationships between texts and a variety of perspectives, cultural contexts, and local and global issues, and an appreciation of how they contribute to diverse responses and open up multiple meanings
- develop an understanding of the relationships between studies in language and literature and other disciplines
- communicate and collaborate in a confident and creative way
- foster a lifelong interest in and enjoyment of language and literature.

CURRICULUM MODEL OVERVIEW		
Syllabus Component	Recorded Teaching Hours	
	SL	HL
Readers, writers and texts	50	80
Time and space	50	80
Intertextuality: connecting texts	50	80
Total Teaching Hours	150	240

Assessment Model

It is the intention of this course that students are able to fulfill the following assessment objectives:

1. Know, understand and interpret:
 - a range of texts, works and/or performances, and their meanings and implications
 - contexts in which texts are written and/or received
 - elements of literary, stylistic, rhetorical, visual and/or performance craft
 - features of particular text types and literary forms.
2. Analyse and evaluate:
 - ways in which the use of language creates meaning
 - uses and effects of literary, stylistic, rhetorical, visual or theatrical techniques
 - relationships among different texts
 - ways in which texts may offer perspectives on human concerns.
3. Communicate
 - ideas in clear, logical and persuasive ways
 - in a range of styles, registers and for a variety of purposes and situations
 - (for literature and performance only) ideas, emotion, character and atmosphere through performance.

ASSESSMENT AT A GLANCE					
Type of Assessment	Format of Assessment	Time (Hours)		Weighting of Final Grade (%)	
		SL	HL	SL	HL
External Assessment					
Paper 1: Guided textual analysis	Guided analysis of unseen non-literary passage/passages from different text types.	1.25	2.25	35	35
Paper 2: Comparative essay	Comparative essay based on two literary works written in response to a choice of one out of four questions.	1.75	1.75	35	25
HL Essay	Written coursework component: 1,200–1,500 word essay on one literary work or a non-literary body of work studied.				20
Internal Assessment					
Individual Oral	Prepared oral response on the way that one literary work and one non-literary body of work studied have approached a common global issue.			30	20

Language B (Arabic) Overview

Course Description & Aims

Language acquisition consists of two modern language courses—language ab initio and language B—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.

Language B is a language acquisition course designed for students with some previous experience of the target language. Students further develop their ability to communicate through the study of language, themes and texts. There are five prescribed themes: identities, experiences, human ingenuity, social organization and sharing the planet.

Both language B SL and HL students learn to communicate in the target language in familiar and unfamiliar contexts. The distinction between language B SL and HL can be seen in the level of competency the student is expected to develop in receptive, productive and interactive skills.

At HL the study of two literary works originally written in the target language is required and students are expected to extend the range and complexity of the language they use and understand in order to communicate. Students continue to develop their knowledge of vocabulary and grammar, as well as their conceptual understanding of how language works, in order to construct, analyse and evaluate arguments on a variety of topics relating to course content and the target language culture(s).

The following language acquisition aims are common to both language ab initio and language B.

- Develop international-mindedness through the study of languages, cultures, and ideas and issues of global significance.
- Enable students to communicate in the language they have studied in a range of contexts and for a variety of purposes.
- Encourage, through the study of texts and through social interaction, an awareness and appreciation of a variety of perspectives of people from diverse cultures.
- Develop students' understanding of the relationship between the languages and cultures with which they are familiar.
- Develop students' awareness of the importance of language in relation to other areas of knowledge.
- Provide students, through language learning and the process of inquiry, with opportunities for intellectual engagement and the development of critical- and creative-thinking skills.
- Provide students with a basis for further study, work and leisure through the use of an additional language.
- Foster curiosity, creativity and a lifelong enjoyment of language learning.

Curriculum Model Overview

The curriculum is organized around five prescribed themes with which the students engage through written, audio, visual and audio-visual texts.

Students develop into successful, effective communicators by considering the conceptual understandings of context, audience, purpose, meaning and variation.

Communication is evidenced through receptive, productive and interactive skills.

Assessment Model

The language acquisition assessment objectives are common to both language ab initio and language B.

- Communicate clearly and effectively in a range of contexts and for a variety of purposes.
- Understand and use language appropriate to a range of interpersonal and/or intercultural contexts and audiences.
- Understand and use language to express and respond to a range of ideas with fluency and accuracy.
- Identify, organize and present ideas on a range of topics.
- Understand, analyse and reflect upon a range of written, audio, visual and audio-visual texts.

ASSESSMENT AT A GLANCE		
Language B SL & HL Assessment Outline		Weighting
External Assessment 75%	Paper 1 (productive skills) One writing task from a choice of three Writing—30 marks	25%
	Paper 2 (receptive skills) Separate sections for listening and reading Listening—25 marks Reading—40 marks	25% 25%
Internal Assessment 25%	Individual oral assessment 30 marks	25%

The assessment outlines for language B SL and HL are identical; it is the nature of the assessment that differs and this is what distinguishes SL assessments from those of HL. For language B HL paper 1, the tasks set will require more complex language and structures and demand higher-order thinking skills. Additionally for HL, a higher word range has been provided in order to accommodate the more complex responses required. For the individual oral internal assessment, the stimulus at language B SL is a visual image that is clearly relevant to one (or more) of the themes of the course. The stimulus at language B HL is an excerpt from one of the two literary works studied.

CONTENT OUTLINE			
Theme	Guiding Principle	Optional Recommended Topics	Possible Questions
Identities	Explore the nature of the self and what it is to be human.	<ul style="list-style-type: none"> • Lifestyles • Health and well-being • Beliefs and values • Subcultures • Language & Identity 	<ul style="list-style-type: none"> • What constitutes an identity? • How do language and culture contribute to form our identity?
Experiences	Explore and tell the stories of the events, experiences and journeys that shape our lives.	<ul style="list-style-type: none"> • Leisure activities • Holidays and travel • Life stories • Rites of passage • Customs and traditions • Migration 	<ul style="list-style-type: none"> • How does our past shape our present and our future? • How and why do different cultures mark important moments in life?
Human Ingenuity	Explore the ways in which human creativity and innovation affect our world.	<ul style="list-style-type: none"> • Entertainment • Artistic expressions • Communication and media • Technology • Scientific innovation 	<ul style="list-style-type: none"> • What can we learn about a culture through its artistic expression? • How do the media change the way we relate to each other?
Social Organization	Explore the ways in which groups of people organize themselves, or are organized, through common systems or interests.	<ul style="list-style-type: none"> • Social relationships • Community • Social engagement • Education • The working world • Law and order 	<ul style="list-style-type: none"> • What is the individual's role in the community? • What role do rules and regulations play in the formation of a society?
Sharing the Planet	Explore the challenges and opportunities faced by individuals and communities in the modern world.	<ul style="list-style-type: none"> • The environment • Human rights • Peace and conflict • Equality • Globalization • Ethics • Urban and rural environment 	<ul style="list-style-type: none"> • What environmental and social issues present challenges to the world, and how can these challenges be overcome? • What challenges and benefits does globalization bring?

Language ab initio (Arabic & French) Overview

Course Description & Aims

Language acquisition consists of two modern language courses—language ab initio and language B—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.

Offered at SL only, language ab initio is a language acquisition course designed for students with no previous experience in—or very little exposure to—the target language.

Language ab initio students develop their receptive, productive and interactive skills while learning to communicate in the target language in familiar and unfamiliar contexts.

Students develop the ability to communicate through the study of language, themes and texts. There are five prescribed themes: identities, experiences, human ingenuity, social organization and sharing the planet. While the themes are common to both language ab initio and language B, the language ab initio syllabus additionally prescribes four topics for each of the five themes, for a total of 20 topics that must be addressed over the two years of the course.

The following language acquisition aims are common to both language ab initio and language B.

- Develop international-mindedness through the study of languages, cultures, and ideas and issues of global significance.
- Enable students to communicate in the language they have studied in a range of contexts and for a variety of purposes.
- Encourage, through the study of texts and through social interaction, an awareness and appreciation of a variety of perspectives of people from diverse cultures.
- Develop students' understanding of the relationship between the languages and cultures with which they are familiar.
- Develop students' awareness of the importance of language in relation to other areas of knowledge.
- Provide students, through language learning and the process of inquiry, with opportunities for intellectual engagement and the development of critical- and creative-thinking skills.
- Provide students with a basis for further study, work and leisure through the use of an additional language.
- Foster curiosity, creativity and a lifelong enjoyment of language learning.

Curriculum Model Overview

The curriculum is organized around five prescribed themes and 20 prescribed topics with which the students engage through written, audio, visual and audio-visual texts.

Students develop into successful, effective communicators by considering the conceptual understandings of context, audience, purpose, meaning and variation.

Communication is evidenced through receptive, productive and interactive skills.

Assessment Model

The language acquisition assessment objectives are common to both language ab initio and language B.

- Communicate clearly and effectively in a range of contexts and for a variety of purposes.
- Understand and use language appropriate to a range of interpersonal and/or intercultural contexts and audiences.
- Understand and use language to express and respond to a range of ideas with fluency and accuracy.
- Identify, organize and present ideas on a range of topics.
- Understand, analyse and reflect upon a range of written, audio, visual and audio-visual texts.

ASSESSMENT AT A GLANCE		
Language B SL & HL Assessment Outline		Weighting
External Assessment 75%	Paper 1 (productive skills) Two written tasks—each from a choice of three Writing—30 marks	25%
	Paper 2 (receptive skills) Separate sections for listening and reading Listening—25 marks Reading—40 marks	25% 25%
Internal Assessment 25%	Individual oral assessment 30 marks	25%

For the individual oral internal assessment, the stimulus at language ab initio SL is a visual image that is clearly relevant to one (or more) of the themes of the course.

CONTENT OUTLINE			
Theme	Guiding Principle	Prescribed Topics	Possible Questions
Identities	Explore the nature of the self and how we express who we are.	<ul style="list-style-type: none"> • Personal attributes • Personal relationships • Eating and drinking • Physical well-being 	<ul style="list-style-type: none"> • How do I present myself to others? • How do I express my identity? • How do I achieve a balanced and healthy lifestyle?
Experiences	Explore and tell the stories of the events, experiences and journeys that shape our lives.	<ul style="list-style-type: none"> • Daily routine • Leisure • Holidays • Festivals and celebration 	<ul style="list-style-type: none"> • How does travel broaden our horizons? • How would my life be different if I lived in another culture? • What are the challenges of being a teenager? • How are customs and traditions similar or different across cultures?
Human Ingenuity	Explore the ways in which human creativity and innovation affect our world.	<ul style="list-style-type: none"> • Transport • Entertainment • Media • Technology 	<ul style="list-style-type: none"> • How do science and technology affect my life? • How do I use media in my daily life? • What can I learn about a culture through entertainment?
Social Organization	Explore the ways in which groups of people organize themselves, or are organized, through common systems or interests.	<ul style="list-style-type: none"> • Neighborhood • Education • The workplace • Social issue 	<ul style="list-style-type: none"> • What purpose do rules and regulations have in society? • What is my role in society? • What options do I have in the world of work?
Sharing the Planet	Explore the challenges and opportunities faced by individuals and communities in the modern world.	<ul style="list-style-type: none"> • Climate • Physical geography • The environment • Global issues 	<ul style="list-style-type: none"> • What can I do to help the environment? • How do my surroundings affect the way I live? • What can I do to make the world a better place?

Business Management SL Overview

Course Description & Aims

The business management course is designed to meet the current and future needs of students who want to develop their knowledge of business content, concepts and tools to assist with business decision-making. Future employees, business leaders, entrepreneurs or social entrepreneurs need to be confident, creative and compassionate as **change agents** for business in an increasingly interconnected global marketplace. The business management course is designed to encourage the development of these attributes.

Through the exploration of four interdisciplinary concepts: **creativity, change, ethics** and **sustainability**, this course empowers students to explore these concepts from a business perspective. Business management focuses on business functions, management processes and decision-making in contemporary contexts of strategic uncertainty.

Students examine how business decisions are influenced by factors that are internal and external to an organization and how these decisions impact upon a range of internal and external stakeholders. Emphasis is placed on strategic decision-making and the operational business functions of human resource management, finance and accounts, marketing, and operations management.

Business management is a challenging and dynamic discipline that more than meets the needs of our students growing and developing in a complex business environment. This course prepares students to be global citizens ready to face up to the challenges and opportunities awaiting them in our ever-changing world.

The aims of the DP business management course are to enable students to:

1. develop as confident, creative and compassionate business leaders, entrepreneurs, social entrepreneurs and as change agents
2. foster an informed understanding of ethical and sustainable business practices
3. explore the connections between individuals, businesses and society
4. engage with decision-making as a process and a skill.

CURRICULUM MODEL OVERVIEW	
Component	
	<ul style="list-style-type: none"> • Unit 1: Introduction to business management • Unit 2: Human resource management • Unit 3: Finance and accounts • Unit 4: Marketing • Unit 5: Operations Management

Assessment Model

By the end of the business management course, students are expected to achieve the following assessment objectives.

A01: Knowledge and understanding

Demonstrate knowledge and understanding of:

- business management tools and theories
- course topics and concepts
- business problems, issues and decisions
- HL extension topics (HL only).

A02: Application and analysis

Apply and analyse:

- business management tools and theories
- course topics and concepts
- business problems, issues and decisions
- business decisions and issues through the selection and use of appropriate data
- HL extension topics (HL only).

A03: Synthesis and evaluation

Synthesize and evaluate:

- business management tools and theories
- course topics and concepts
- business problems, issues and decisions
- stakeholder interests to reach informed business decisions
- recommendations for competing future strategic options (HL only)
- HL extension topics (HL only).

A04: Use and application of appropriate skills

- Select and apply relevant business management tools, theories and concepts to support research into a business issue or problem.
- Select, interpret and analyse business materials from a range of primary and secondary sources.
- Create well-structured materials using business management terminology.
- Communicate analysis and conclusions of research effectively.

ASSESSMENT AT A GLANCE			
Type of Assessment	Format of Assessment	Time (Hours)	Weighting of Final Grade (%)
External Assessment		3 hours	70
Paper 1	Based on a pre-released statement that specifies the context and background for the unseen case study	1 hour 30 minutes	35
Paper 2	Based on unseen stimulus material with a quantitative focus	1 hours 30 minutes	35
Internal			
Business Research Project	Students produce a research project about a real business issue or problem facing a particular organization using a conceptual lens	20 hours	30

Business Management HL Overview

Course Description & Aims

The business management course is designed to meet the current and future needs of students who want to develop their knowledge of business content, concepts and tools to assist with business decision-making. Future employees, business leaders, entrepreneurs or social entrepreneurs need to be confident, creative and compassionate as **change agents** for business in an increasingly interconnected global marketplace. The business management course is designed to encourage the development of these attributes.

Through the exploration of four interdisciplinary concepts: **creativity, change, ethics** and **sustainability**, this course empowers students to explore these concepts from a business perspective. Business management focuses on business functions, management processes and decision-making in contemporary contexts of strategic uncertainty.

Students examine how business decisions are influenced by factors that are internal and external to an organization and how these decisions impact upon a range of internal and external stakeholders. Emphasis is placed on strategic decision-making and the operational business functions of human resource management, finance and accounts, marketing, and operations management.

Business management is a challenging and dynamic discipline that more than meets the needs of our students growing and developing in a complex business environment. This course prepares students to be global citizens ready to face up to the challenges and opportunities awaiting them in our ever-changing world.

The aims of the DP business management course are to enable students to:

1. develop as confident, creative and compassionate business leaders, entrepreneurs, social entrepreneurs and as change agents
2. foster an informed understanding of ethical and sustainable business practices
3. explore the connections between individuals, businesses and society
4. engage with decision-making as a process and a skill.

CURRICULUM MODEL OVERVIEW

Component

- Unit 1: Introduction to business management
- Unit 2: Human resource management
- Unit 3: Finance and accounts
- Unit 4: Marketing
- Unit 5: Operations Management
- Business Management Toolkit
- Research Time Allocated for the Pre-Released Statement in Paper 1
- Internal Assessment

Assessment Model

By the end of the business management course, students are expected to achieve the following assessment objectives.

A01: Knowledge and understanding

Demonstrate knowledge and understanding of:

- business management tools and theories
- course topics and concepts
- business problems, issues and decisions
- HL extension topics (HL only).

A02: Application and analysis

Apply and analyse:

- business management tools and theories
- course topics and concepts
- business problems, issues and decisions
- business decisions and issues through the selection and use of appropriate data
- HL extension topics (HL only).

A03: Synthesis and evaluation

Synthesize and evaluate:

- business management tools and theories
- course topics and concepts
- business problems, issues and decisions
- stakeholder interests to reach informed business decisions
- recommendations for competing future strategic options (HL only)
- HL extension topics (HL only).

A04: Use and application of appropriate skills

- Select and apply relevant business management tools, theories and concepts to support research into a business issue or problem.
- Select, interpret and analyse business materials from a range of primary and secondary sources.
- Create well-structured materials using business management terminology.
- Communicate analysis and conclusions of research effectively.

ASSESSMENT AT A GLANCE			
Type of Assessment	Format of Assessment	Time (Hours)	Weighting of Final Grade (%)
External Assessment		3 hours	80
Paper 1	Based on a pre-released statement that specifies the context and background for the unseen case study	1 hour 30 minutes	25
Paper 2	Based on unseen stimulus material with a quantitative focus	1 hours 45 minutes	30
Paper 3	Based on unseen stimulus material about a social enterprise	1 hour 15 minutes	25
Internal			
Business Research Project	Students produce a research project about a real business issue or problem facing a particular organization using a conceptual lens	20 hours	20

Economics SL Overview

Course Description & Aims

Economics is an exciting, dynamic subject that allows students to develop an understanding of the complexities and interdependence of economic activities in a rapidly changing world. At the heart of economic theory is the problem of scarcity. Owing to scarcity, choices have to be made. The economics course, at both SL and HL, uses economic theories, models and key concepts to examine the ways in which these choices are made: at the level of producers and consumers in individual markets (microeconomics); at the level of the government and the national economy (macroeconomics); and at an international level, where countries are becoming increasingly interdependent (the global economy).

The DP economics course allows students to explore these models, theories and key concepts, and apply them, using empirical data, through the examination of six real-world issues. Through their own inquiry, students will be able to appreciate both the values and limitations of economic models in explaining real-world economic behaviour and outcomes. By focusing on the six real-world issues through the nine key concepts (scarcity, choice, efficiency, equity, economic well-being, sustainability, change, interdependence and intervention), students of the economics course will develop the knowledge, skills, values and attitudes that will encourage them to act responsibly as global citizens.

The aims of the DP economics course are to enable students to:

- develop a critical understanding of a range of economic theories, models, ideas and tools in the areas of microeconomics, macroeconomics and the global economy
- apply economic theories, models, ideas and tools, and analyse economic data to understand and engage with real-world economic issues and problems facing individuals and societies
- develop a conceptual understanding of individuals' and societies' economic choices, interactions, challenges and consequences of economic decision-making.

CURRICULUM MODEL OVERVIEW

Component

- Unit 1: Introduction to economics
- Unit 2: Microeconomics
- Unit 3: Macroeconomics
- Unit 4: The global economy
- Internal Assessment

Assessment Model

There are four assessment objectives for the DP economics course. Having followed the course at SL, students will be expected to meet the following objectives.

Assessment objective 1: Knowledge and understanding

- Demonstrate knowledge and understanding of specified content
- Demonstrate knowledge and understanding of the common SL/HL syllabus
- Demonstrate knowledge and understanding of current economic issues and data

Assessment objective 2: Application and analysis

- Apply economic concepts and theories to real-world situations
- Identify and interpret economic data
- Analyse how economic information is used effectively in particular contexts
- In the internal assessment task: Explain the link between key economic concepts and economic commentaries

Assessment objective 3: Synthesis and evaluation

- Examine economic concepts and theories
- Use economic concepts and examples to construct and present an argument
- Discuss and evaluate economic information and theories

Assessment objective 4: Use and application of appropriate skills

- Produce well-structured written material, using appropriate economic theory, concepts and terminology
- Produce and use diagrams to help explain economic theory, concepts and real-world issues
- Select, interpret and analyse appropriate extracts from the news media
- Interpret appropriate data sets
- Use quantitative techniques to identify, explain and analyse economic relationships

ASSESSMENT AT A GLANCE			
Type of Assessment	Format of Assessment	Time (Hours)	Weighting of Final Grade (%)
External Assessment		3 hours	70
Paper 1	Extended response paper based on all units of the syllabus	1 hour 15 minutes	30
Paper 2	Data response paper based on all units of the syllabus	1 hours 45 minutes	40
Internal			
Portfolio	Three commentaries based on different units of the syllabus (except the introductory unit) and from published extracts from the news media, analysed using different key concepts	20 hours	30

Economics HL Overview

Course Description & Aims

Economics is an exciting, dynamic subject that allows students to develop an understanding of the complexities and interdependence of economic activities in a rapidly changing world. At the heart of economic theory is the problem of scarcity. Owing to scarcity, choices have to be made. The economics course, at both SL and HL, uses economic theories, models and key concepts to examine the ways in which these choices are made: at the level of producers and consumers in individual markets (microeconomics); at the level of the government and the national economy (macroeconomics); and at an international level, where countries are becoming increasingly interdependent (the global economy).

The DP economics course allows students to explore these models, theories and key concepts, and apply them, using empirical data, through the examination of six real-world issues. Through their own inquiry, students will be able to appreciate both the values and limitations of economic models in explaining real-world economic behaviour and outcomes. By focusing on the six real-world issues through the nine key concepts (scarcity, choice, efficiency, equity, economic well-being, sustainability, change, interdependence and intervention), students of the economics course will develop the knowledge, skills, values and attitudes that will encourage them to act responsibly as global citizens.

The aims of the DP economics course are to enable students to:

- develop a critical understanding of a range of economic theories, models, ideas and tools in the areas of microeconomics, macroeconomics and the global economy
- apply economic theories, models, ideas and tools, and analyse economic data to understand and engage with real-world economic issues and problems facing individuals and societies
- develop a conceptual understanding of individuals' and societies' economic choices, interactions, challenges and consequences of economic decision-making.

CURRICULUM MODEL OVERVIEW	
Component	
	<ul style="list-style-type: none"> • Unit 1: Introduction to economics • Unit 2: Microeconomics • Unit 3: Macroeconomics • Unit 4: The global economy • Internal Assessment

Assessment Model

There are four assessment objectives for the DP economics course. Having followed the course at HL, students will be expected to meet the following objectives.

Assessment objective 1: Knowledge and understanding

- Demonstrate knowledge and understanding of specified content
- Demonstrate knowledge and understanding of the common SL/HL syllabus
- Demonstrate knowledge and understanding of current economic issues and data
- Demonstrate knowledge and understanding of the HL extension topics

Assessment objective 2: Application and analysis

- Apply economic concepts and theories to real-world situations
- Identify and interpret economic data
- Analyse how economic information is used effectively in particular contexts
- In the internal assessment task: Explain the link between key economic concepts and economic commentaries
- Demonstrate application and analysis of the HL extension topics

Assessment objective 3: Synthesis and evaluation

- Examine economic concepts and theories
- Use economic concepts and examples to construct and present an argument
- Discuss and evaluate economic information and theories
- Select and use economic data using economic theory to make policy recommendations

Assessment objective 4: Use and application of appropriate skills

- Produce well-structured written material, using appropriate economic theory, concepts and terminology
- Produce and use diagrams to help explain economic theory, concepts and real-world issues
- Select, interpret and analyse appropriate extracts from the news media
- Interpret appropriate data sets
- Use quantitative techniques to identify, explain and analyse economic relationships

ASSESSMENT AT A GLANCE			
Type of Assessment	Format of Assessment	Time	Weighting of Final Grade (%)
External Assessment		3 hours	80
Paper 1	Extended response paper based on all units of the syllabus	1 hour 15 minutes	20
Paper 2	Data response paper based on all units of the syllabus	1 hour 45 minutes	30
Paper 3	Policy paper based on all units of the syllabus	1 hours 45 minutes	30
Internal			
Portfolio	Three commentaries based on different units of the syllabus (except the introductory unit) and from published extracts from the news media, analysed using different key concepts	20 hours	20

Psychology Overview

Course Description & Aims

At the core of the DP psychology course is an introduction to three different approaches to understanding behavior: the biological, cognitive and sociocultural approaches. Students study and critically evaluate the knowledge, concepts, theories and research that have developed the understanding in these fields.

The interaction of these approaches to studying psychology forms the basis of a holistic and integrated approach to understanding mental processes and behavior as a complex, dynamic phenomenon, allowing students to appreciate the diversity as well as the commonality between their own behavior and that of others.

The contribution and the interaction of the three approaches is understood through the four options in the course, focusing on areas of applied psychology: abnormal psychology, developmental psychology, health psychology, and the psychology of relationships. The options provide an opportunity to take what is learned from the study of the approaches to psychology and apply it to specific lines of inquiry.

Psychologists employ a range of research methods, both qualitative and quantitative, to test their observations and hypotheses. DP psychology promotes an understanding of the various approaches to research and how they are used to critically reflect on the evidence as well as assist in the design, implementation, analysis and evaluation of the students' own investigations. Surrounding the approaches and the options are the overarching themes of research and ethics. A consideration of both is paramount to the nature of the subject.

The aims of the psychology course at SL and at HL are to:

- develop an understanding of the biological, cognitive and socio-cultural factors affecting mental processes and behavior
- apply an understanding of the biological, cognitive and sociocultural factors affecting mental processes and behavior to at least one applied area of study
- understand diverse methods of inquiry
- understand the importance of ethical practice in psychological research in general and observe ethical practice in their own inquiries
- ensure that ethical practices are upheld in all psychological inquiry and discussion
- develop an awareness of how psychological research can be applied to address real-world problems and promote positive change
- provide students with a basis for further study, work and leisure through the use of an additional language
- foster curiosity, creativity and a lifelong enjoyment of language learning.

CURRICULUM MODEL OVERVIEW		
Core	Options	Internal Assessment
<ul style="list-style-type: none"> • Biological approach to understanding behavior • Cognitive approach to understanding behavior • Sociocultural approach to understanding behavior • Approaches to researching behavior 	<ul style="list-style-type: none"> • Abnormal psychology • Developmental psychology • Health psychology • Psychology of human relationships 	Experimental study

Assessment Model

By the end of the psychology course at SL or at HL, students will be expected to demonstrate the following.

1. Knowledge and comprehension of specified content
 - Demonstrate knowledge and comprehension of:
 - key terms and concepts in psychology
 - a range of psychological theories and studies
 - the biological, cognitive and sociocultural approaches to mental processes and behavior
 - research methods used in psychology.
2. Application and analysis
 - Demonstrate an ability to use examples of psychological research and psychological concepts to formulate an argument in response to a specific question.
 - Demonstrate application and analysis of
 - a range of psychological theories and research studies
 - the knowledge relevant to areas of applied psychology.
 - At HL only, analyse qualitative and quantitative research in psychology.
3. Synthesis and evaluation
 - Evaluate the contribution of
 - psychological theories to understanding human psychology
 - research to understanding human psychology
 - the theories and research in areas of applied psychology.
 - At HL only, evaluate research scenarios from a methodological and ethical perspective.
4. Selection and use of skills appropriate to psychology
 - Demonstrate the acquisition of skills required for experimental design, data collection and presentation, data analysis and the evaluation of a simple experiment while demonstrating ethical practice.
 - Work in a group to design a method for a simple experimental investigation, organize the investigation and record the required data for a simple experiment.
 - Write a report of a simple experiment.

ASSESSMENT AT A GLANCE					
Type of Assessment	Format of Assessment	Time (Hours)		Weighting of Final Grade (%)	
		SL	HL	SL	HL
External Assessment		3	5	75	80
Paper 1	Three short answer questions on the core. One essay from a choice of three on the biological, cognitive and sociocultural approaches. HL only: essays will reference additional HL topic.	2	2	50	40
Paper 2	SL: one question from a choice of three on one option. HL: two questions; one each from a choice of three on two options.	1	2	25	20
Paper 3	Three short answer questions on approaches to research.		1		20
Internal Assessment		20	20	25	20
Experimental Study	A report on an experimental study undertaken by the student.	20	20	25	20

Biology SL/HL Overview (First Assessment 2025)

Course Description & Aims

As one of the three natural sciences in the IB Diploma Programme, biology is primarily concerned with the study of life and living systems. Biologists attempt to make sense of the world through a variety of approaches and techniques, controlled experimentation and collaboration between scientists. At a time of global introspection on human activities and their impact on the world around us, developing and communicating a clear understanding of the living world has never been of greater importance than it is today.

Through the study of DP biology, students are empowered to make sense of living systems through unifying themes. By providing opportunities for students to explore conceptual frameworks, they are better able to develop understanding and awareness of the living world around them. This is carried further through a study of interactions at different levels of biological organization, from molecules and cells to ecosystems and the biosphere. Integral to the student experience of the DP biology course is the learning that takes place through scientific inquiry. With an emphasis on experimental work, teachers provide students with opportunities to ask questions, design experiments, collect and analyse data, collaborate with peers, and reflect, evaluate and communicate their findings.

DP biology enables students to constructively engage with topical scientific issues. Students examine scientific knowledge claims in a real-world context, fostering interest and curiosity. By exploring the subject, they develop understandings, skills and techniques which can be applied across their studies and beyond.

Through the overarching theme of the nature of science, the course aims to enable students to:

1. develop conceptual understanding that allows connections to be made between different areas of the subject, and to other DP sciences subjects
2. acquire and apply a body of knowledge, methods, tools and techniques that characterize science
3. develop the ability to analyse, evaluate and synthesize scientific information and claims
4. develop the ability to approach unfamiliar situations with creativity and resilience
5. design and model solutions to local and global problems in a scientific context
6. develop an appreciation of the possibilities and limitations of science
7. develop technology skills in a scientific context
8. develop the ability to communicate and collaborate effectively
9. develop awareness of the ethical, environmental, economic, cultural and social impact of science.

Curriculum Model Overview

The DP biology course promotes concept-based teaching and learning to foster critical thinking. The DP biology course is built on:

- approaches to learning
- nature of science
- skills in the study of biology.

These three pillars support a broad and balanced experimental programme. As students progress through the course, they become familiar with traditional experimentation techniques, as well as the application of technology. These opportunities help them to develop their investigative skills and evaluate the impact of error and uncertainty in scientific inquiry. The scientific investigation then places a specific emphasis on inquiry-based skills and the formal communication of scientific knowledge. Finally, the collaborative sciences project extends the development of scientific communication in a collaborative and interdisciplinary context, allowing students to work together beyond the confines of biology.

SYLLABUS COMPONENT

Form & Function	Interaction & Interdependence	Continuity & Change	Experimental Programme
<ul style="list-style-type: none"> Carbohydrates and lipids Proteins Membranes and membrane transport Organelles and compartmentalization Cell specialization Gas exchange Transport Muscle and motility * Adaptation to environment Ecological niches 	<ul style="list-style-type: none"> Enzymes and metabolism Cell respiration Photosynthesis Chemical signalling * Neural signalling Integration of body systems Defence against disease Populations and communities Transfer of energy and matter 	<ul style="list-style-type: none"> DNA replication Protein synthesis Mutations and gene editing Cell and nuclear division Gene expression * Water potential Reproduction Inheritance Homeostasis Natural selection Sustainability and change Climate change 	<ul style="list-style-type: none"> Practical work Collaborative sciences project Scientific investigation
<p><i>* Topics with content that should only be taught to HL students</i></p>			

Skills in the Study of Biology

The skills and techniques students must experience through the course are encompassed within the tools. These support the application and development of the inquiry process in the delivery of the biology course.

Tools

- Experimental techniques
- Technology
- Mathematics

Inquiry process

- Exploring and designing
- Collecting and processing data
- Concluding and evaluating

Assessment Model

There are four assessment objectives for the DP biology course. Having followed the biology course, students are expected to demonstrate the following assessment objectives.

Assessment Objective 1 – Demonstrate knowledge of:

- terminology, facts and concepts
- skills, techniques and methodologies.

Assessment Objective 2 – Understand and apply knowledge of:

- terminology and concepts
- skills, techniques and methodologies.

Assessment objective 3 – Analyse, evaluate, and synthesize:

- experimental procedures
- primary and secondary data
- trends, patterns and predictions.

Assessment objective 4 – Demonstrate the application of skills necessary to carry out insightful and ethical investigations.

ASSESSMENT AT A GLANCE				
Type of Assessment	Format of Assessment	Time (Hours)		Weighting of Final Grade (%)
		SL	HL	
External Assessment				
Paper 1	Paper 1A: Multiple-choice questions Paper 1B: Data-based questions (four questions that are syllabus related, addressing all themes)	1.5	2	36
Paper 2	Data-based and short-answer questions Extended-response questions	1.5	2.5	44
Internal Assessment				
Scientific Investigation	The scientific investigation is an open-ended task in which the student gathers and analyses data in order to answer their own formulated research question. The outcome of the scientific investigation will be assessed through the form of a written report. The maximum overall word count for the report is 3,000 words.	10		20

Chemistry SL/HL Overview (First Assessment 2025)

Course Description & Aims

As one of the three natural sciences in the IB Diploma Programme, chemistry is primarily concerned with identifying patterns that help to explain matter at the microscopic level. This then allows matter's behaviour to be predicted and controlled at a macroscopic level. The subject therefore emphasizes the development of representative models and explanatory theories, both of which rely heavily on creative but rational thinking.

DP chemistry enables students to constructively engage with topical scientific issues. Students examine scientific knowledge claims in a real-world context, fostering interest and curiosity. By exploring the subject, they develop understandings, skills and techniques which can be applied across their studies and beyond.

Integral to the student experience of the DP chemistry course is the learning that takes place through scientific inquiry both in the classroom and the laboratory.

Through the overarching theme of the nature of science, the course aims to enable students to:

1. develop conceptual understanding that allows connections to be made between different areas of the subject, and to other DP sciences subjects
2. acquire and apply a body of knowledge, methods, tools and techniques that characterize science
3. develop the ability to analyse, evaluate and synthesize scientific information and claims
4. develop the ability to approach unfamiliar situations with creativity and resilience
5. design and model solutions to local and global problems in a scientific context
6. develop an appreciation of the possibilities and limitations of science
7. develop technology skills in a scientific context
8. develop the ability to communicate and collaborate effectively
9. develop awareness of the ethical, environmental, economic, cultural and social impact of science.

Curriculum Model Overview

The DP chemistry course promotes concept-based teaching and learning to foster critical thinking. The DP chemistry course is built on:

- approaches to learning
- nature of science
- skills in the study of chemistry.

These three pillars support a broad and balanced experimental programme. As students progress through the course, they become familiar with traditional experimentation techniques, as well as the application of technology. These opportunities help them to develop their investigative skills and evaluate the impact of error and uncertainty in scientific inquiry. The scientific investigation then places a specific emphasis on inquiry-based skills and the formal communication of scientific knowledge. Finally, the collaborative sciences project extends the development of scientific communication in a collaborative and interdisciplinary context, allowing students to work together beyond the confines of chemistry.

SYLLABUS COMPONENT

Component	Syllabus Content
Structure 1 Models of particulate nature of matter	<ul style="list-style-type: none"> • Structure 1.1—Introduction to the particulate nature of matter • Structure 1.2—The nuclear atom • Structure 1.3—Electron configurations • Structure 1.4—Counting particles by mass: The mole • Structure 1.5—Ideal gases
Structure 2 Models of bonding and structure	<ul style="list-style-type: none"> • Structure 2.1—The ionic model • Structure 2.2—The covalent model • Structure 2.3—The metallic model • Structure 2.4—From models to materials
Structure 3 Classification of matter	<ul style="list-style-type: none"> • Structure 3.1—The periodic table: Classification of elements • Structure 3.2—Functional groups: Classification of organic compounds
Reactivity 1 What drives chemical reactions?	<ul style="list-style-type: none"> • Reactivity 1.1—Measuring enthalpy change • Reactivity 1.2—Energy cycles in reactions • Reactivity 1.3—Energy from fuels • Reactivity 1.4—Entropy and spontaneity (Additional higher level)
Reactivity 2 How much, how fast and how far?	<ul style="list-style-type: none"> • Reactivity 2.1—How much? The amount of chemical change • Reactivity 2.2—How fast? The rate of chemical change • Reactivity 2.3—How far? The extent of chemical change
Reactivity 3 What are the mechanisms of chemical change?	<ul style="list-style-type: none"> • Reactivity 3.1—Proton transfer reactions • Reactivity 3.2—Electron transfer reactions • Reactivity 3.3—Electron sharing reactions • Reactivity 3.4—Electron-pair sharing reactions
Experiment programme	<ul style="list-style-type: none"> • Practical work • Collaborative sciences project • Scientific investigation

Skills in the Study of Chemistry

The skills and techniques students must experience through the course are encompassed within the tools. These support the application and development of the inquiry process in the delivery of the chemistry course.

Tools

- Experimental techniques
- Technology
- Mathematics

Inquiry process

- Exploring and designing
- Collecting and processing data
- Concluding and evaluating

Assessment Model

There are four assessment objectives for the DP chemistry course. Having followed the chemistry course, students are expected to demonstrate the following assessment objectives.

Assessment Objective 1 – Demonstrate knowledge of:

- terminology, facts and concepts
- skills, techniques and methodologies.

Assessment Objective 2 – Understand and apply knowledge of:

- terminology and concepts
- skills, techniques and methodologies.

Assessment objective 3 – Analyse, evaluate, and synthesize:

- experimental procedures
- primary and secondary data
- trends, patterns and predictions.

Assessment objective 4 – Demonstrate the application of skills necessary to carry out insightful and ethical investigations.

ASSESSMENT AT A GLANCE				
Type of Assessment	Format of Assessment	Time (Hours)		Weighting of Final Grade (%)
		SL	HL	
External Assessment				
Paper 1	Paper 1A: Multiple-choice questions Paper 1B: Data-based questions and questions on experimental work	1.5	2	36
Paper 2	Short answer and extended-response questions	1.5	2.5	44
Internal Assessment				
Scientific Investigation	The scientific investigation is an open-ended task in which the student gathers and analyses data in order to answer their own formulated research question. The outcome of the scientific investigation will be assessed through the form of a written report. The maximum overall word count for the report is 3,000 words.	10		20

Physics SL/HL Overview (First Assessment 2025)

Course Description & Aims

As one of the three natural sciences in the IB Diploma Programme, physics is concerned with an attempt to understand the natural world; from determining the nature of the atom to finding patterns in the structure of the universe. It is the search for answers from how the universe exploded into life to the nature of time itself. Observations are essential to the very core of the subject. Models are developed to try to understand observations, and these themselves can become theories that attempt to explain the observations. Besides leading to a better understanding of the natural world, physics gives us the ability to alter our environments.

DP physics enables students to constructively engage with topical scientific issues. Students examine scientific knowledge claims in a real-world context, fostering interest and curiosity. By exploring the subject, they develop understandings, skills and techniques which can be applied across their studies and beyond.

Integral to the student experience of the DP physics course is the learning that takes place through scientific inquiry both in the classroom and the laboratory.

Through the overarching theme of the nature of science, the course aims to enable students to:

1. develop conceptual understanding that allows connections to be made between different areas of the subject, and to other DP sciences subjects
2. acquire and apply a body of knowledge, methods, tools and techniques that characterize science
3. develop the ability to analyse, evaluate and synthesize scientific information and claims
4. develop the ability to approach unfamiliar situations with creativity and resilience
5. design and model solutions to local and global problems in a scientific context
6. develop an appreciation of the possibilities and limitations of science
7. develop technology skills in a scientific context
8. develop the ability to communicate and collaborate effectively
9. develop awareness of the ethical, environmental, economic, cultural and social impact of science.

Curriculum Model Overview

The DP physics course promotes concept-based teaching and learning to foster critical thinking. The DP physics course is built on:

- approaches to learning
- nature of science
- skills in the study of physics.

These three pillars support a broad and balanced experimental programme. As students progress through the course, they become familiar with traditional experimentation techniques, as well as the application of technology. These opportunities help them to develop their investigative skills and evaluate the impact of error and uncertainty in scientific inquiry. The scientific investigation then places a specific emphasis on inquiry-based skills and the formal communication of scientific knowledge. Finally, the collaborative sciences project extends the development of scientific communication in a collaborative and interdisciplinary context, allowing students to work together beyond the confines of physics.

SYLLABUS COMPONENT

Component	Syllabus Content
A. Space, time and motion	<ul style="list-style-type: none"> • A.1 Kinematics • • A.2 Forces and momentum • • A.3 Work, energy and power • • A.4 Rigid body mechanics ••• • A.5 Galilean and special relativity •••
B. The particulate nature of matter	<ul style="list-style-type: none"> • B.1 Thermal energy transfers • • B.2 Greenhouse effect • • B.3 Gas laws • • B.4 Thermodynamics ••• • B.5 Current and circuits •
C. Wave behaviour	<ul style="list-style-type: none"> • C.1 Simple harmonic motion •• • C.2 Wave model • • C.3 Wave phenomena •• • C.4 Standing waves and resonance • • C.5 Doppler effect ••
D. Fields	<ul style="list-style-type: none"> • D.1 Gravitational fields •• • D.2 Electric and magnetic fields •• • D.3 Motion in electromagnetic fields • • D.4 Induction •••
E. Nuclear and quantum physics	<ul style="list-style-type: none"> • E.1 Structure of the atom •• • E.2 Quantum physics ••• • E.3 Radioactive decay •• • E.4 Fission • • E.5 Fusion and stars •
Experimental programme	<ul style="list-style-type: none"> • Practical work • Collaborative sciences project • Scientific investigation
<p>• <i>Topics with content that should be taught to all students</i></p> <p>•• <i>Topics with content that should be taught to all students plus additional HL content</i></p> <p>••• <i>Topics with content that should only be taught to HL students</i></p>	

Skills in the Study of Physics

The skills and techniques students must experience through the course are encompassed within the tools. These support the application and development of the inquiry process in the delivery of the physics course.

Tools

- Experimental techniques
- Technology
- Mathematics

Inquiry process

- Exploring and designing
- Collecting and processing data
- Concluding and evaluating

Assessment Model

There are four assessment objectives for the DP chemistry course. Having followed the chemistry course, students are expected to demonstrate the following assessment objectives.

Assessment Objective 1 – Demonstrate knowledge of:

- terminology, facts and concepts
- skills, techniques and methodologies.

Assessment Objective 2 – Understand and apply knowledge of:

- terminology and concepts
- skills, techniques and methodologies.

Assessment objective 3 – Analyse, evaluate, and synthesize:

- experimental procedures
- primary and secondary data
- trends, patterns and predictions.

Assessment objective 4 – Demonstrate the application of skills necessary to carry out insightful and ethical investigations.

ASSESSMENT AT A GLANCE				
Type of Assessment	Format of Assessment	Time (Hours)		Weighting of Final Grade (%)
		SL	HL	
External Assessment				
Paper 1	Paper 1A: Multiple-choice questions Paper 1B: Data-based questions	1.5	2	36
Paper 2	Short-answer and extended-response questions	1.5	2.5	44
Internal Assessment				
Scientific Investigation	The scientific investigation is an open-ended task in which the student gathers and analyses data in order to answer their own formulated research question. The outcome of the scientific investigation will be assessed through the form of a written report. The maximum overall word count for the report is 3,000 words.	10		20

Computer Science SL Overview (Last Assessment 2026)

Course Description & Aims

The IB DP Computer science SL course requires an understanding of the fundamental concepts of computational thinking as well as knowledge of how computers and other digital devices operate. The course, under-pinned by conceptual thinking, draws on a wide spectrum of knowledge, and enables and empowers innovation, exploration and the acquisition of further knowledge. Students study how computer science interacts with and influences cultures, society and how individuals and societies behave, and the ethical issues involved. During the course the student will develop computational solutions. This will involve the ability to:

- identify a problem or unanswered question
- design, prototype and test a proposed solution
- liaise with clients to evaluate the success of the proposed solution and make recommendations for future developments.

The aims of the computer science standard level courses are to:

- provide opportunities for study and creativity within a global con-text that will stimulate and challenge students developing the skills necessary for independent and lifelong learning
- provide a body of knowledge, methods and techniques that characterize computer science
- enable students to apply and use a body of knowledge, methods and techniques that characterize computer science
- demonstrate initiative in applying thinking skills critically to identify and resolve complex problems
- engender an awareness of the need for, and the value of, effective collaboration and communication in resolving complex problems
- develop logical and critical thinking as well as experimental, investigative and problem-solving skills
- develop and apply the students' information and communication technology skills in the study of computer science to communicate information confidently and effectively
- raise awareness of the moral, ethical, social, economic and environ-mental implications of using science and technology
- develop an appreciation of the possibilities and limitations associated with continued developments in IT systems and computer science
- encourage an understanding of the relationships between scientific disciplines and the overarching nature of the scientific method.

CURRICULUM MODEL OVERVIEW		
Core	Option	IA Solution
<ul style="list-style-type: none"> • Topic 1: System fundamentals • Topic 2: Computer organization • Topic 3: Networks • Topic 4: Computational thinking, problem-solving and programming 	SL/HL Core	Practical application of skills through the development of a product and associated documentation

Assessment Model

Having followed the computer science standard level course, students will be expected to:

Know and understand:

- relevant facts and concepts
- appropriate methods and techniques
- computer science terminology
- methods of presenting information.

Apply and use:

- relevant facts and concepts
- relevant design methods and techniques
- terminology to communicate effectively
- appropriate communication methods to present information.

Construct, analyse, evaluate and formulate:

- success criteria, solution specifications including task outlines, de-signs and test plans
- appropriate techniques within a specified solution.

Demonstrate the personal skills of cooperation and perseverance as well as appropriate technical skills for effective problem-solving in developing a specified product.

ASSESSMENT AT A GLANCE			
Type of Assessment	Format of Assessment	Time (hours)	Weighting of Final Grade (%)
External Assessment			70
Paper 1	<ul style="list-style-type: none"> • Section A consists of several compulsory short answer questions • Section B consists of three compulsory structured questions. 	1.5	45
Paper 2	An examination paper of between two and five compulsory questions; linked to the option studied.	1	25
Internal Assessment			30
Solution	<p>The development of a computational solution. Students must produce:</p> <ul style="list-style-type: none"> • a cover page that follows the prescribed format • a product • supporting documentation (word limit 2,000 words). <p>There must be evidence of independent research and investigation for students to reach the top level.</p>	30	
Group 4 Project	To be assessed using the criterion Personal skills.	10	

Computer Science HL Overview (Last Assessment 2026)

Course Description & Aims

The IB DP Computer science SL course requires an understanding of the fundamental concepts of computational thinking as well as knowledge of how computers and other digital devices operate. The course, under-pinned by conceptual thinking, draws on a wide spectrum of knowledge, and enables and empowers innovation, exploration and the acquisition of further knowledge. Students study how computer science interacts with and influences cultures, society and how individuals and societies behave, and the ethical issues involved. During the course the student will develop computational solutions. This will involve the ability to:

- identify a problem or unanswered question
- design, prototype and test a proposed solution
- liaise with clients to evaluate the success of the proposed solution and make recommendations for future developments.

The aims of the computer science standard level courses are to:

- provide opportunities for study and creativity within a global con-text that will stimulate and challenge students developing the skills necessary for independent and lifelong learning
- provide a body of knowledge, methods and techniques that characterize computer science
- enable students to apply and use a body of knowledge, methods and techniques that characterize computer science
- demonstrate initiative in applying thinking skills critically to identify and resolve complex problems
- engender an awareness of the need for, and the value of, effective collaboration and communication in resolving complex problems
- develop logical and critical thinking as well as experimental, investigative and problem-solving skills
- develop and apply the students' information and communication technology skills in the study of computer science to communicate information confidently and effectively
- raise awareness of the moral, ethical, social, economic and environ-mental implications of using science and technology
- develop an appreciation of the possibilities and limitations associated with continued developments in IT systems and computer science
- encourage an understanding of the relationships between scientific disciplines and the overarching nature of the scientific method.

CURRICULUM MODEL OVERVIEW		
Core	Option (Choose 1 out of 4)	IA Solution
<ul style="list-style-type: none"> • Topic 1: System fundamentals • Topic 2: Computer organization • Topic 3: Networks • Topic 4: Computational thinking, problem-solving and programming • Topic 5: Abstract data structures • Topic 6: Resource management • Topic 7: Control • Case Study: additional subject content introduced by the annually issued case study 	<ul style="list-style-type: none"> A: Databases B: Modelling and simulation C: Web science D: Object-oriented programming (OOP) 	Practical application of skills through the development of a product and associated documentation

Assessment Model

Having followed the computer science standard level course, students will be expected to:

Know and understand:

- relevant facts and concepts
- appropriate methods and techniques
- computer science terminology
- methods of presenting information.

Apply and use:

- relevant facts and concepts
- relevant design methods and techniques
- terminology to communicate effectively
- appropriate communication methods to present information.

Construct, analyse, evaluate and formulate:

- success criteria, solution specifications including task outlines, de-signs and test plans
- appropriate techniques within a specified solution.

Demonstrate the personal skills of cooperation and perseverance as well as appropriate technical skills for effective problem-solving in developing a specified product.

ASSESSMENT AT A GLANCE			
Type of Assessment	Format of Assessment	Time (hours)	Weighting of Final Grade (%)
External Assessment			80
Paper 1	<ul style="list-style-type: none"> • Section A consists of several compulsory short answer questions • Section B consists of three compulsory structured questions. 	2 hours, 10 min.	40
Paper 2	An examination paper of between two and five compulsory questions; linked to the option studied.	1 hour, 20 min.	20
Paper 3	An examination paper consisting of four compulsory questions based on a pre-seen case study.	1	20
Internal Assessment			30
Written Commentary	<p>The development of a computational solution. Students must produce:</p> <ul style="list-style-type: none"> • a cover page that follows the prescribed format • a product • supporting documentation (word limit 2,000 words). <p>There must be evidence of independent research and investigation for students to reach the top level.</p>	30	
Group 4 Project	To be assessed using the criterion Personal skills.	10	

Computer Science SL/HL Overview (First Assessment 2027)

Course Description & Aims

The DP computer science course requires an understanding of the fundamental concepts of computing systems and the ability to apply the computational thinking process to solve problems in the real world. The course also requires students to develop skills in algorithmic thinking and computer programming.

DP computer science is engaging, accessible, inspiring and rigorous, and has the following characteristics. The course:

- draws on a wide spectrum of knowledge of computer systems
- develops skills in algorithmic thinking and computer programming
- is underpinned by the computational thinking process
- enables and empowers innovation, exploration and the acquisition of further knowledge
- includes the study of machine learning
- raises ethical issues.

Computational thinking involves the ability to:

- specify problems in terms of their computational context and determine success criteria
- decompose complex real-world problems into more manageable problems
- abstract problems and generalize them to enable algorithmic thinking and to develop solutions
- test and evaluate solutions for improvements.

During the course, students will develop a computational solution. This will develop their ability to identify a problem or unanswered question, and design, develop and evaluate a proposed solution.

The course enables students to:

- develop conceptual understanding that allows connections to be made between different areas of the subject, and to other DP subjects
- acquire and apply a body of knowledge, methods, tools and techniques that characterize computer science
- analyse and evaluate solutions developed through computational thinking in a range of contexts
- approach unfamiliar situations with creativity and resilience
- use computational thinking to design and implement solutions to local and global problems
- develop an appreciation of the possibilities and limitations of computer science
- evaluate the impact of emerging technologies in computer science
- communicate and collaborate effectively
- develop awareness of the environmental, economic, cultural and social impact of computer science, its applications and ethical implications.

Curriculum Model Overview

The DP computer science course is organized into two key themes:

- Theme A: Concepts in computer science
- Theme B: Computational thinking and problem-solving

Theme A focuses on how computing systems work. Theme B focuses on how we can use computing systems to solve real-world problems. The course also has a practical dimension, comprising the computational solution (internal assessment) and the collaborative sciences project. The course can be studied in either the Python or Java programming languages.

SYLLABUS COMPONENT	
Component	Syllabus Content
A. Concepts of computer science	<ul style="list-style-type: none"> • A.1 Computer fundamentals • A.2 Networks • A.3 Databases • A.4 Machine learning
B. Computational thinking and problem-solving	<ul style="list-style-type: none"> • B.1 Computational thinking • B.2 Programming • B.3 Object oriented programming (OOP) • B.4 Abstract data types (HL only) • Case study
Internal Assessment	<ul style="list-style-type: none"> • The computational solution
Collaborative Sciences Project	<ul style="list-style-type: none"> • Practical work • Collaborative sciences project • Scientific investigation

Assessment Model

There are four assessment objectives for the DP computer science course. At the end of the course, students are expected to have met the following objectives:

Assessment Objective 1—Demonstrate knowledge and understanding of:

- facts, concepts, principles and terminology in computer science
- appropriate methods, techniques and skills to solve problems using computational thinking.

Assessment Objective 2—Apply and use:

- facts, concepts, principles and terminology in computer science
- appropriate methods, techniques and skills to solve problems using computational thinking
- appropriate methods to present information in computer science.

Assessment Objective 3—Construct, synthesize, analyse and evaluate:

- problem specifications, system requirements, success criteria, testing strategies, and programs
- appropriate techniques to the solution of a problem
- relevant data, information and technological explanations for solutions.

Assessment Objective 4—Demonstrate the application of computational thinking skills to solve real-world problems using computer science solutions.



ASSESSMENT AT A GLANCE			
Type of Assessment	Format of Assessment	Time (weighting of final grade)	
		SL	HL
External Assessment		2 hours 30 minutes (70%)	4 hours (80%)
Paper 1	<ul style="list-style-type: none"> • Questions focused on the four topics in theme A, "Concepts of computer science". • The paper also consists of three questions related to the case study. 	1 hour 15 minutes (35%)	2 hours (40%)
Paper 2	<ul style="list-style-type: none"> • Questions for SL and HL focused on the three topics in theme B, "Computational thinking and problem-solving". • Additional questions for HL, focused on OOP and abstract data types. <p>Students can answer questions in either Java or Python.</p>	1 hour 15 minutes (35%)	2 hours (40%)
Internal Assessment			
The computational solution	Students develop a computational solution to a real-world problem of their own choosing. The solution should use the concepts, skills and tools acquired in the course and the computational thinking process.	35 hours (30%)	35 hours (20%)

Mathematics: Analysis & Approaches Overview

Course Description & Aims

Individual students have different needs, aspirations, interests and abilities. For this reason there are two different DP subjects in mathematics, Mathematics: analysis and approaches and Mathematics: applications and interpretation. Each course is designed to meet the needs of a particular group of students. Both courses are offered at SL and HL.

The IB DP Mathematics: analysis and approaches course recognizes the need for analytical expertise in a world where innovation is increasingly dependent on a deep understanding of mathematics. The focus is on developing important mathematical concepts in a comprehensible, coherent and rigorous way, achieved by a carefully balanced approach. Students are encouraged to apply their mathematical knowledge to solve abstract problems as well as those set in a variety of meaningful contexts. Mathematics: analysis and approaches has a strong emphasis on the ability to construct, communicate and justify correct mathematical arguments. Students should expect to develop insight into mathematical form and structure, and should be intellectually equipped to appreciate the links between concepts in different topic areas. Students are also encouraged to develop the skills needed to continue their mathematical growth in other learning environments. The internally assessed exploration allows students to develop independence in mathematical learning. Throughout the course students are encouraged to take a considered approach to various mathematical activities and to explore different mathematical ideas.

The aims of all DP mathematics courses are to enable students to:

- develop a curiosity and enjoyment of mathematics, and appreciate its elegance and power
- develop an understanding of the concepts, principles and nature of mathematics
- communicate mathematics clearly, concisely and confidently in a variety of contexts
- develop logical and creative thinking, and patience and persistence in problem solving to instill confidence in using mathematics
- employ and refine their powers of abstraction and generalization
- take action to apply and transfer skills to alternative situations, to other areas of knowledge and to future developments in their local and global communities
- appreciate how developments in technology and mathematics influence each other
- appreciate the moral, social and ethical questions arising from the work of mathematicians and the applications of mathematics
- appreciate the universality of mathematics and its multicultural, inter-national and historical perspectives
- appreciate the contribution of mathematics to other disciplines, and as a particular “area of knowledge” in the TOK course
- develop the ability to reflect critically upon their own work and the work of others
- independently and collaboratively extend their understanding of mathematics.

CURRICULUM MODEL OVERVIEW

Syllabus Component

1. Number and algebra
2. Functions
3. Geometry and trigonometry
4. Statistics and probability
5. Calculus

Development of investigational, problem-solving and modelling skills and the exploration of an area of mathematics.

Assessment Model

Problem-solving is central to learning mathematics and involves the acquisition of mathematical skills and concepts in a wide range of situations, including non-routine, open-ended and real-world problems.

The assessment objectives are common to Mathematics: analysis and approaches and to Mathematics: applications and interpretation.

- 1. Knowledge and understanding:** Recall, select and use their knowledge of mathematical facts, concepts and techniques in a variety of familiar and unfamiliar contexts.
- 2. Problem solving:** Recall, select and use their knowledge of mathematical skills, results and models in both abstract and real-world contexts to solve problems.
- 3. Communication and interpretation:** Transform common realistic contexts into mathematics; comment on the context; sketch or draw mathematical diagrams, graphs or constructions both on paper and using technology; record methods, solutions and conclusions using standardized notation; use appropriate notation and terminology.
- 4. Technology:** Use technology accurately, appropriately and efficiently both to explore new ideas and to solve problems.
- 5. Reasoning:** Construct mathematical arguments through use of precise statements, logical deduction and inference and by the manipulation of mathematical expressions.
- 6. Inquiry approaches:** Investigate unfamiliar situations, both abstract and from the real world, involving organizing and analyzing information, making conjectures, drawing conclusions, and testing their validity.

The exploration is an integral part of the course and its assessment, and is compulsory for both SL and HL students. It enables students to demonstrate the application of their skills and knowledge, and to pursue their personal interests, without the time limitations and other constraints that are associated with written examinations.

ASSESSMENT AT A GLANCE					
Type of Assessment	Format of Assessment	Time (Hours)		Weighting of Final Grade (%)	
		SL	HL	SL	HL
External Assessment					
Paper 1	No technology allowed. Section A: compulsory short-response questions based on the syllabus. Section B: compulsory extended-response questions based on the syllabus.	1.5	2	40	30
Paper 2	Technology allowed. Section A: compulsory short-response questions based on the syllabus. Section B: compulsory extended-response questions based on the syllabus.	1.5	2	40	30
Paper 3	Technology allowed. Two compulsory extended-response problem-solving questions.		1		20
Internal Assessment					
Exploration		15	15	20	20

Mathematics: Applications & Interpretation Overview

Course Description & Aims

Individual students have different needs, aspirations, interests and abilities. For this reason there are two different DP subjects in mathematics, Mathematics: analysis and approaches and Mathematics: applications and interpretation. Each course is designed to meet the needs of a particular group of students. Both courses are offered at SL and HL.

The IB DP Mathematics: applications and interpretation course recognizes the increasing role that mathematics and technology play in a diverse range of fields in a data-rich world. As such, it emphasizes the meaning of mathematics in context by focusing on topics that are often used as applications or in mathematical modelling. To give this understanding a firm base, this course includes topics that are traditionally part of a pre-university mathematics course such as calculus and statistics. Students are encouraged to solve real-world problems, construct and communicate this mathematically and interpret the conclusions or generalizations. Students should expect to develop strong technology skills, and will be intellectually equipped to appreciate the links between the theoretical and the practical concepts in mathematics. All external assessments involve the use of technology. Students are also encouraged to develop the skills needed to continue their mathematical growth in other learning environments. The internally assessed exploration allows students to develop independence in mathematical learning. Throughout the course students are encouraged to take a considered approach to various mathematical activities and to explore different mathematical ideas.

The aims of all DP mathematics courses are to enable students to:

- develop a curiosity and enjoyment of mathematics, and appreciate its elegance and power
- develop an understanding of the concepts, principles and nature of mathematics
- communicate mathematics clearly, concisely and confidently in a variety of contexts
- develop logical and creative thinking, and patience and persistence in problem solving to instill confidence in using mathematics
- employ and refine their powers of abstraction and generalization
- take action to apply and transfer skills to alternative situations, to other areas of knowledge and to future developments in their local and global communities
- appreciate how developments in technology and mathematics influence each other
- appreciate the moral, social and ethical questions arising from the work of mathematicians and the applications of mathematics
- appreciate the universality of mathematics and its multicultural, inter-national and historical perspectives
- appreciate the contribution of mathematics to other disciplines, and as a particular “area of knowledge” in the TOK course
- develop the ability to reflect critically upon their own work and the work of others
- independently and collaboratively extend their understanding of mathematics.

CURRICULUM MODEL OVERVIEW

Syllabus Component

1. Number and algebra
2. Functions
3. Geometry and trigonometry
4. Statistics and probability
5. Calculus

Development of investigational, problem-solving and modelling skills and the exploration of an area of mathematics.

Assessment Model

Problem-solving is central to learning mathematics and involves the acquisition of mathematical skills and concepts in a wide range of situations, including non-routine, open-ended and real-world problems.

The assessment objectives are common to Mathematics: analysis and approaches and to Mathematics: applications and interpretation.

- **Knowledge and understanding:** Recall, select and use their knowledge of mathematical facts, concepts and techniques in a variety of familiar and unfamiliar contexts.
- **Problem solving:** Recall, select and use their knowledge of mathematical skills, results and models in both abstract and real-world contexts to solve problems.
- **Communication and interpretation:** Transform common realistic contexts into mathematics; comment on the context; sketch or draw mathematical diagrams, graphs or constructions both on paper and using technology; record methods, solutions and conclusions using standardized notation; use appropriate notation and terminology.
- **Technology:** Use technology accurately, appropriately and efficiently both to explore new ideas and to solve problems.
- **Reasoning:** Construct mathematical arguments through use of precise statements, logical deduction and inference and by the manipulation of mathematical expressions.
- **Inquiry approaches:** Investigate unfamiliar situations, both abstract and from the real world, involving organizing and analyzing information, making conjectures, drawing conclusions, and testing their validity.

The exploration is an integral part of the course and its assessment, and is compulsory for both SL and HL students. It enables students to demonstrate the application of their skills and knowledge, and to pursue their personal interests, without the time limitations and other constraints that are associated with written examinations.

ASSESSMENT AT A GLANCE					
Type of Assessment	Format of Assessment	Time (Hours)		Weighting of Final Grade (%)	
		SL	HL	SL	HL
External Assessment					
Paper 1	Technology allowed. Compulsory short-response questions based on the syllabus.	1.5	2	40	30
Paper 2	Technology allowed. Compulsory extended-response questions based on the syllabus.	1.5	2	40	30
Paper 3	Technology allowed. Two compulsory extended-response problem-solving questions.		1		20
Internal Assessment					
Exploration		15	15	20	20