



**INTERNATIONAL BACCALAUREATE DIPLOMA
PROGRAMME**

Curriculum Outline

2017-2019



The Diploma Programme

The Diploma Programme is a rigorous pre-university course of study designed for students in the 16 to 19 age group. It is a broad-based two-year course that aims to encourage students not only 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.

Choosing the right combination

Students are required to choose one subject from each of the six academic areas, although they can choose a second subject from groups 1 to 5 instead of a group 6 subject. 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.

At both levels, many skills are developed, especially those of critical thinking and analysis. At the end of the course, students' abilities are measured by means of external assessment. Many subjects contain some element of coursework assessed by teachers. The courses are available for examinations in English, French and Spanish, with the exception of groups 1 and 2 courses where examinations are in the language of study.

The core of the Diploma Programme

All Diploma Programme students participate in the three course requirements that make up the core of the DP. Reflection on all these activities is a principle that lies at the heart of the thinking behind the Diploma Programme.

The theory of knowledge course encourages students to think about the nature of knowledge, to reflect on the process of learning in all the subjects they study as part of their Diploma Programme course, and to make connections across the academic areas. The extended essay, a substantial piece of writing of up to 4,000 words, enables students to investigate a topic of special interest that they have chosen themselves. It also encourages them to develop the skills of independent research that will be expected at university. Creativity, activity and service involves students in experiential learning through a range of artistic, sport, physical and service activities.

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 inter-cultural 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 life-long learners who understand that other people, with their differences, can also be right.

Sanskar Mission Statement

Sanskar School aims to:

- equip its pupil with a critical and global outlook which will make them committed citizens of the world
- recognize and channelize the potential of the pupil and develop thinking, communication, social, scientific and inter-personal skills
- foster cognitive, affective and psycho-motor development and enable the pupil to make connections with the acquired knowledge in his/her everyday life

IB learner profile

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.

IB learners strive to be:

Inquirers They develop their natural curiosity. They acquire the skills necessary to conduct inquiry and research and show independence in learning. They actively enjoy learning and this love of learning will be sustained throughout their lives.

Knowledgeable They explore concepts, ideas and issues that have local and global significance. In so doing, they acquire in-depth knowledge and develop understanding across a broad and balanced range of disciplines.

Thinkers They exercise initiative in applying thinking skills critically and creatively to recognize and approach complex problems, and make reasoned, ethical decisions.

Communicators They understand and express ideas and information confidently and creatively in more than one language and in a variety of modes of communication. They work effectively and willingly in collaboration with others.

Principled They act with integrity and honesty, with a strong sense of fairness, justice and respect for the dignity of the individual, groups and communities. They take responsibility for their own actions and the consequences that accompany them.

Open-minded They understand and appreciate their own cultures and personal histories, and are open to the perspectives, values and traditions of other individuals and communities. They are accustomed to seeking and evaluating a range of points of view, and are willing to grow from the experience.

Caring They show empathy, compassion and respect towards the needs and feelings of others. They have a personal commitment to service, and act to make a positive difference to the lives of others and to the environment.

Risk-takers They approach unfamiliar situations and uncertainty with courage and forethought, and have the independence of spirit to explore new roles, ideas and strategies. They are brave and articulate in defending their beliefs.

Balanced They understand the importance of intellectual, physical and emotional balance to achieve personal well-being for themselves and others.

Reflective They give thoughtful consideration to their own learning and experience. They are able to assess and understand their strengths and limitations in order to support their learning and personal development.

Subjects Offered at Sanskar School

Group 1

Studies in Language and Literature
English A1 Literature and Language

Group 2

Language Acquisition
Subject: Hindi B HL/SL
Subject: French B HL/ SL
Subject: French ab initio SL

Group 3

Individuals and Societies

Subject: Economics HL/SL
Subject: Business and Management HL / SL
Subject: Psychology HL/ SL
Subject: Information Technology in a Global Society HL/ SL

Group 4

Experimental Sciences
Subject: Biology HL/SL
Subject: Chemistry HL/SL
Subject: Physics HL/SL

Group 5

Mathematics
Subject: Mathematics HL/ SL

Group 6

Arts
Subject: Visual Arts HL/SL

The Core –

The Extended Essay
Theory of Knowledge
Creativity, Activity & Service

Group 1- Studies in Language and Literature

English A1: Language and literature

Language A: Language and literature comprises four parts—two relate to the study of language and two to the study of literature.

The study of the texts produced in a language is central to an active engagement with language and culture and, by extension, to how we see and understand the world in which we live. A key aim of the language A: language and literature course is to encourage students to question the meaning generated by language and texts, which, it can be argued, is rarely straightforward and unambiguous. Helping students to focus closely on the language of the texts they study and to become aware of the role of each text's wider context in shaping its meaning is central to the course.

The language A: language and literature course aims to develop in students skills of textual analysis and the understanding that texts, both literary and non-literary, can be seen as autonomous yet simultaneously related to culturally determined reading practices. The course is designed to be flexible—teachers have the opportunity to construct it in a way that reflects the interests and concerns that are relevant to their students while developing in students a range of transferable skills. An understanding of the ways in which formal elements are used to create meaning in a text is combined with an exploration of how that meaning is affected by reading practices that are culturally defined and by the circumstances of production and reception.

Teachers should be aware while constructing the course that the focus underpinning the approach to texts sees the study of the formal elements of each text as only one among several means of establishing a reading. As noted above, a wide range of factors, including the circumstances of production and reception, and the role of culturally determined reading practices, are seen as being equally important. A wider aim of the course is the development of an understanding of “critical literacy” in students.

In view of the international nature of the IB and its commitment to intercultural understanding, the language A: language and literature course does not limit the study of texts to the products of one culture or of the cultures covered by any one language. The study of literature in translation from other cultures is especially important to IB Diploma Programme students because it contributes to a global perspective, thereby promoting an insight into, and understanding of, the different ways in which cultures influence and shape the experiences of life common to all humanity.

Distinction between SL and HL

The model for language A: language and literature is the same at SL and HL, but there are significant quantitative and qualitative differences between the levels.

In the literature sections the number of texts prescribed is greater at HL than at SL. In the language sections students are generally expected to cover many more texts of all kinds at HL than at SL.

Nature of the subject (Course Outline)

Two of the assessment tasks at SL are significantly easier than the comparable tasks at HL. The first is the paper 1 textual analysis, where SL students address and analyse only one passage, while HL students make a comparative analysis of two passages. The second is the written tasks, where HL students must produce four tasks, rather than the three produced by SL students. Two of these tasks are submitted for external assessment at HL, while only one is submitted at SL. One of the assessed tasks submitted at HL must be a critical response that addresses one of six set questions and requires students to explore the values, attitudes and beliefs that are implied in the texts they select for this task.

The distinction between SL and HL is summarized below. In paper 2 there are common questions for both SL and HL, and differentiation is achieved through the use of different assessment criteria. Internal assessment tasks and criteria are the same at SL and at HL.

Part of the course	SL	HL
Parts 1 and 2: Language in cultural context, and language and mass communication	Fewer topics covered in order to achieve learning outcomes than at HL	More topics covered in order to achieve learning outcomes than at SL
Part 3: Literature—texts and Contexts	Study of two works, one of which is a text in translation from the prescribed literature in translation (PLT) list	Study of three works, one or two of which is (are) a text(s) in translation from the prescribed literature in translation (PLT) list
Part 4: Literature—critical study	Study of two works chosen from the prescribed list of authors (PLA) for	Study of three works chosen from the prescribed list of authors

	the language A studied	(PLA) for the language A studied
Written tasks	Production of three written tasks, one of which is submitted for external assessment	Production of four written tasks, two of which are submitted for External assessment. One of the assessed tasks must be a critical response to one of six questions
Paper 1: Textual analysis	An analysis of one non-literary text or extract (1 hour and 30 minutes)	A comparative analysis of a pair of texts, at least one of which is non literary (2 hours)

Prior learning

There are no formal requirements for students undertaking the group 1 courses. Students who take these courses will often have varied language profiles and may be multilingual. While it is recommended that students have had experience of writing critical essays about texts, not having done so should not exclude them from studying language A. Schools should refer to the IB document, *Learning in a language other than mother tongue in IB programmes*, available on the OCC, for support.

Each course offers the opportunity for continued language development and the acquisition of a range of skills including, for example, textual analysis and the expression of literary appreciation. The choice of the specific group 1 course will depend on the students' and teacher's interests and the students' future educational plans.

Group 1 aims

The aims of Language A: Literature and language A: Language and literature at SL and HL, and of Literature and performance at SL are to:

- introduce students to a range of texts from different periods, styles and genres
- develop in students the ability to engage in close, detailed analysis of individual texts and make relevant connections
- develop the students' powers of expression, both in oral and written communication
- encourage students to recognize the importance of the contexts in which texts are

written and received

- encourage, through the study of texts, an appreciation of the different perspectives of people from other cultures, and how these perspectives construct meaning
- encourage students to appreciate the formal, stylistic and aesthetic qualities of texts
- promote in students an enjoyment of, and lifelong interest in Language and literature.

Language A: Language and literature aims

In addition, the aims of the **Language A: Language and literature** course at SL and at HL are to:

- develop in students an understanding of how language, culture and context determine the ways in which meaning is constructed in texts
- encourage students to think critically about the different interactions between text, audience and purpose.

There are four assessment objectives at SL and at HL for the language A: language and literature course.

- Knowledge and understanding
 - Demonstrate knowledge and understanding of a range of texts
 - Demonstrate an understanding of the use of language, structure, technique and style
 - Demonstrate a critical understanding of the various ways in which the reader constructs meaning and of how context influences this constructed meaning
 - Demonstrate an understanding of how different perspectives influence the reading of a text
- Application and analysis
 - Demonstrate an ability to choose a text type appropriate to the purpose required
 - Demonstrate an ability to use terminology relevant to the various text types studied
 - Demonstrate an ability to analyse the effects of language, structure, technique and style on the reader
 - Demonstrate an awareness of the ways in which the production and reception of texts contribute to their meanings
 - Demonstrate an ability to substantiate and justify ideas with relevant examples
- Synthesis and evaluation
 - Demonstrate an ability to compare and contrast the formal elements,

- content and context of texts
- Discuss the different ways in which language and image may be used in a range of texts
- Demonstrate an ability to evaluate conflicting viewpoints within and about a text
- **At HL only:** Produce a critical response evaluating some aspects of text, context and meaning
- Selection and use of appropriate presentation and language skills
 - Demonstrate an ability to express ideas clearly and with fluency in both written and oral communication
 - Demonstrate an ability to use the oral and written forms of the language, in a range of styles, registers and situations
 - Demonstrate an ability to discuss and analyse texts in a focused and logical manner
 - **At HL only:** Demonstrate an ability to write a balanced, comparative analysis

Assessment objectives in practice

Assessment objective	Which component addresses this Assessment objective?	How is the assessment objective addressed?
1. Knowledge and understanding	Paper 1	The textual analysis requires knowledge and understanding of the formal elements and content of a previously unseen text or texts, and of the significance of context, audience and purpose.
	Paper 2	The essay on at least two literary works studied in part 3 requires knowledge and understanding of the way meaning is conveyed through form, style, content and context.
	Written tasks	Through the written tasks students show knowledge and understanding of texts studied, as well as the conventions and form of particular text types.
	Individual oral commentary	Students are assessed on their detailed knowledge and understanding of an extract from a text studied in part 4.
	Further oral activity	Students are required to demonstrate knowledge and understanding of texts

		studied in parts 1 and 2 and the implications of the language used.
2. Application and analysis	Paper 1	Students are required to analyse Language and style and their effects on the reader.
	Paper 2	In the essay students analyse literary texts studied in part 3 and discuss the way in which context affects the use of formal elements, structure and content.
	Written tasks	In these tasks students show awareness of the ways in which the production and reception of texts contribute to their meaning.
	Written task 2 (HL only)	In this task students make use of appropriate terminology for the analysis of texts.
	Individual oral commentary	Students are required to analyse a short extract from a text studied in part 4, and to comment on literary features and their effects on the reader.
	Further oral activity	Students are required to analyse texts, exploring the ways in which the circumstances of production and reception affect the meaning of texts.

Assessment objectives in practice

Assessment objective	Which component addresses this assessment objective?	How is the assessment objective addressed?
3. Synthesis and evaluation	Paper 1	Students compare and evaluate the formal elements, content and context of a previously unseen text or texts (HL). This may involve evaluating conflicting Viewpoints within and across texts.
	Paper 2	Students discuss at least two texts, synthesizing their ideas to explore the connections between content, context, form and style.
	Written task 2 (HL only)	Students evaluate conflicting viewpoints within and about particular literary texts.
	Individual oral commentary	Students are required to evaluate the ways in which language is used in an extract from a text studied in part 4.
	Further oral activity	Students are required to analyse texts in a way that evaluates conflicting viewpoints within and about a text.
4. Selection and use of appropriate presentation and language skills	Paper 1	Students are required to express their ideas clearly and to develop a coherent analysis. At HL the analysis between the two texts must be balanced.
	Paper 2	Students are required to show effective organization, formal use of language and appropriate use of literary terms. Their ideas should be clearly expressed.

	Written tasks	The written tasks require students to pay attention to style, register and structure.
	Individual oral commentary	Students are required in the commentary to show clarity in a well-structured oral communication.
	Further oral activity	Students are required to choose a style and a register that are appropriate to the task. There should be a clear sense of structure.

Syllabus component	Teaching hours	
	SL	H L
Part 1: Language in cultural context Texts are chosen from a variety of sources, genres and media.	40	60
Part 2: Language and mass communication Texts are chosen from a variety of sources, genres and media.	40	60
Part 3: Literature—texts and contexts SL: Two texts, one of which is a text in translation from the prescribed literature in translation (PLT) list and one, written in the language A studied, from the prescribed list of authors (PLA) for the language A studied, or chosen freely. HL: Three texts, one of which is a text in translation chosen from the prescribed literature in translation (PLT) list and one from the prescribed list of authors (PLA) for the language A studied. The other may be chosen freely.	40	70
Part 4: Literature—critical study SL: Two texts, both of which are chosen from the prescribed list of authors (PLA) for the language A studied. HL: Three texts, all of which are chosen from the prescribed list of authors (PLA) for the language A studied.	30	50
Total teaching hours	150	240

Assessment outline—SL

First examinations 2018

Assessment component	Weighting
<p>External assessment (3 hours)</p> <p>Paper 1: Textual analysis (1 hour 30 minutes) The paper consists of two unseen texts. Students write an analysis of one of these texts. (20 marks)</p> <p>Paper 2: Essay (1 hour 30 minutes) In response to one of six questions students write an essay based on both the literary texts studied in part 3. The questions are the same at HL but the assessment criteria are different. (25 marks)</p> <p>Written task Students produce at least three written tasks based on material studied in the course. Students submit one written task for external assessment. (20 marks) This task must be 800–1,000 words in length plus a rationale of 200–300 words.</p>	<p>70%</p> <p>25%</p> <p>25%</p> <p>20%</p>
<p>Internal assessment This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.</p> <p>Individual oral commentary Students comment on an extract from a literary text studied in part 4 of the course. (30 marks) Students are given two guiding questions.</p> <p>Further oral activity Students complete at least two further oral activities, one based on part 1 and one based on part 2 of the course. The mark of one further oral activity is submitted for final assessment. (30 marks)</p>	<p>30%</p> <p>15%</p> <p>15%</p>

First examinations 2018

Assessment component	Weighting
<p>External assessment (4 hours)</p> <p>Paper 1: Comparative textual analysis (2 hours) The paper consists of two pairs of unseen texts. Students write a comparative analysis of one pair of texts. (20 marks)</p> <p>Paper 2: Essay (2 hours) In response to one of six questions students write an essay based on at least two of the literary texts studied in part 3. The questions are the same at SL but the assessment criteria are different. (25 marks)</p> <p>Written tasks Students produce at least four written tasks based on material studied in the course. Students submit two of these tasks for external assessment. (20 marks for each task) One of the tasks submitted must be a critical response to one of the prescribed questions for the HL additional study. Each task must be 800–1,000 words in length; task 1 should be accompanied by a rationale of 200–300 words, while task 2 should be accompanied by a short outline.</p>	<p>70%</p> <p>25%</p> <p>25%</p> <p>20%</p>
<p>Internal assessment This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.</p> <p>Individual oral commentary Students comment on an extract from a literary text studied in part 4 of the course. (30 marks) Students are given two guiding questions.</p> <p>Further oral activity Students complete at least two further oral activities, one based on part 1 and one based on part 2 of the course. The mark of one further oral activity is submitted for final assessment. (30 marks)</p>	<p>30%</p> <p>15%</p> <p>15%</p>

Group 1 - Language A1 grade descriptors

Grade 7 Excellent performance

Demonstrates: excellent knowledge and understanding of works and tasks; very strong and detailed appreciation of the effects of technique and style; very strong evidence of independent and/or original perspectives on the works studied, where appropriate; consistently focused, carefully developed and persuasive presentation of ideas or argument; use of language that is varied, clear, concise, precise and convincingly adapted to tasks.

Grade 6 Very good performance

Demonstrates: very good knowledge and understanding of works and tasks; strong and detailed appreciation of the effects of technique and style; strong evidence of a personal engagement with the works studied, where appropriate; clearly focused, well-developed and purposeful presentation of ideas or argument; use of language that is varied, clear, concise and effectively adapted to tasks.

Grade 5 Good performance

Demonstrates: sound knowledge and understanding of works and tasks; good appreciation of the effects of technique and style; good evidence of a relevant personal response to the works studied, where appropriate; clearly focused and effective presentation of ideas or argument; use of language that is clear, concise and appropriately adapted to tasks.

Grade 4 Satisfactory performance

Demonstrates: adequate knowledge and understanding of works and tasks; adequate awareness of the effects of technique and style; adequate evidence of a relevant personal response to the works studied, where appropriate; generally focused and satisfactory development/presentation of ideas or argument; use of language that is generally clear, accurate, fluent and appropriate to tasks.

Grade 3 Mediocre performance

Demonstrates: some knowledge but superficial understanding of works and tasks; some awareness of the effects of technique and style; some evidence of a relevant personal response to the works studied, where appropriate; some evidence of a focus but ideas are neither appropriately developed nor presented; use of language that is limited in clarity, accuracy, fluency and appropriateness to tasks.

Grade 2 Poor performance

Demonstrates: basic knowledge and/or understanding of works and tasks; basic awareness of the elements of technique and style; basic structure to the presentation of ideas; use of language that is lacking in clarity, accuracy and coherence.

Grade 1 Very poor performance

Demonstrates: rudimentary knowledge and/or understanding of works and tasks; presentation without clarity or relevance; use of language that is barely intelligible.

GROUP 2: Language Acquisition

Subject: Hindi HL/SL and French HL/ SL

Recommended Background Knowledge

Successful completion of 2-4 years (SL) or 4-5 years (HL) of HINDI/ FRENCH language by Grade 10.

Course Description:

Language B is a foreign language learning course designed for students with some previous experience of the language. It may be studied at either higher level or standard level. The main focus is on language acquisition and development in the 4 language skills: listening, speaking, reading and writing.

Although the nature of the language B course is the same for both levels, they differ in the number of types of texts that students are expected to write and, more generally, in the depth and breadth of the language used. These differences are reflected in the objectives and the assessment criteria

Course Outline:

The language B syllabus approaches the learning of language through meaning. Through the study of the core and the options at SL and HL, plus two literary works at HL, students build the necessary skills to reach the assessment objectives of the language B course through the expansion of their receptive, productive and interactive skills. SL and HL are differentiated by the recommended number of teaching hours, the depth of syllabus coverage, the study of literature at HL, and the level of difficulty and demands of assessment and assessment criteria.

The CORE (common topics to both levels) is divided in 3 areas of study:

1. Social relationships
2. Communication & Media
3. Global Issues

Standard Level

There are 5 OPTIONS, but the teacher will select TWO:

- Health
- Customs & Traditions
- Leisure
- Cultural Diversity
- Science & Technology

Higher Level ONLY:

- TWO of the same options (see above)
- TWO works of LITERATURE are read and analyzed.

What are the main aims of this subject? (Adapted from IB Subject Guide)

The aim of the Hindi/ French Language B course is to give the students the opportunity to reach a higher degree of competence in the language. The course

is designed to encourage students to acquire a language system and learn to apply it through listening, speaking, reading and writing. It should allow students to exchange ideas and communicate effectively in a number of situations and within the culture(s) where the language is spoken.

Why students may consider this subject?

Hindi/ French is a second language course for students who want to increase their proficiency in an additional language. Students would have limited experience of working with the language in an academic context or would have only been exposed to the language on a regular basis relatively recently.

What is the difference between Higher Level (HL) and Standard Level (SL) in this subject?

Although the nature of the language B is the same for both higher and standard level, the two levels differ in the number of types of texts that students are expected to write and, more generally, in the depth and breadth of the language used. Usually HL students study two extra pieces of literature.

Main Course Objectives: (adapted from IB Subject Guide)

Higher Level

- communicate clearly and effectively in a wide range of situations
- understand and use a wide range of vocabulary
- select a register and style that are appropriate to the situation
- express ideas with general clarity and fluency
- structure arguments in a clear, coherent and convincing way
- understand and analyze moderately complex written and spoken material
- show an awareness of, and sensitivity to, the culture(s).

Standard Level

- communicate clearly and effectively in a range of situations
- understand and use accurately oral and written forms of the language that are commonly encountered in a range of situations
- express ideas with general clarity and some fluency
- structure arguments in a generally clear, coherent and convincing way
- understand and respond appropriately to written and spoken material of average difficulty
- show an awareness of, and sensitivity to, some elements of the culture(s) related to the language studied.

Assessment Information:

External Assessment

External Assessment, which for both HL and SL include two examinations, the second of which requires a written response of approximately 250 to 400 words (500 to 800 characters) in length. The difference between HL and SL is one of depth and length of these assessments and also usually requires the student to link to the literary texts studied for the former.

External Assessment (SL) Written Component 70%

- Paper1 (1h and 30 min) : Text-handling exercises on 4 texts 25%
(1h and 30 min) : One writing from a choice of 5 (250-400 words)
- Paper 2 25%
- Written assignment : Inter-textual reading of 3 sources followed by a written exercise of 300-400 words and a 100 word rationale, based on the CORE 20%

External Assessment (HL) Written Component 70%

- Paper1 (1h and 30 min) : Text-handling exercises on 5 texts 25%
- Paper 2(1h and 30 min) : One writing from a choice of 5 (400-600 words) 25%
- Section A: One task of 250-400 words, based on the Options, to be selected from a choice of five
- Section B: 150-200 words; Personal Response to a stimulus (statement or article)
- Written assignment** : Creative Writing 500- 600 words and a 100 word rationale, based on the literary texts studied 20%

Internal Assessment

Internal Assessment (HL & SL) Oral Component 30 %

Two oral activities to be internally assessed by the teacher and externally moderated by the IBO. These will be conducted in school.

1. Individual Oral

: **20%**

15 minute preparation+ 10 minute presentation & follow-up discussion with the teacher:

2. Interactive Oral Activities: 10% Based on the Core. 3 classroom activities are assessed by the teacher. The marks are submitted by the teacher and are externally moderated.

The language ab initio course is organized into three themes.

- Individual and society
- Leisure and work
- Urban and rural environment

Each theme has a list of topics that provide the students with opportunities to practice and explore the language as well as to develop intercultural understanding. Through the development of receptive, productive and interactive skills, students should be able to respond and interact appropriately in a defined range of everyday situations. Each language ab initio course has a language-specific syllabus (see "Syllabus content") that is used in conjunction with the guide. Language ab initio is available at SL only.

Language ab initio aims

The aims of the language ab initio course are to be defined within the parameters of the language ab initio syllabus. The range of contexts, purposes, language skills and texts to be taught are listed in “Syllabus Outline”.

The aims of language ab initio are to:

1. develop students’ intercultural understanding
2. enable students to understand and use the language they have studied in a range of contexts and for a variety of purposes
3. encourage, through the study of texts and through social interaction, an awareness and appreciation of the different perspectives of people from other cultures
4. develop students’ awareness of the role of language in relation to other areas of knowledge
5. develop students’ awareness of the relationship between the languages and cultures with which they are familiar
6. provide students with a basis for further study, work and leisure through the use of an additional language
7. provide the opportunity for enjoyment, creativity and intellectual stimulation through knowledge of an additional language.

Assessment objectives

There are five assessment objectives for the language ab initio course. Students will be assessed on their ability to:

- demonstrate an awareness and understanding of the intercultural elements related to the prescribed topics
- communicate clearly and effectively in a range of situations
- understand and use accurately the basic structures of the language
- understand and use an appropriate range of vocabulary
- use a register and a format that are appropriate to the situation.

Assessment objectives in practice

Assessment objective	Which component addresses this assessment objective?	How is the assessment objective addressed?
1. Demonstrate an awareness and understanding of the intercultural elements related to the prescribed topics	Paper 1	Students respond appropriately to an authentic text.
	Paper 2	Students respond to the task using the appropriate conventions and register.
	Written assignment	Students demonstrate an awareness of the similarities and/or differences between their own culture(s) and the target culture(s) in their chosen topic.
	Internal assessment	Students respond appropriately to the questions on the written assignment.
1. Communicate clearly and effectively in a range of situations	Paper 2	Students respond to written tasks using appropriate language, register and format.
	Written assignment	Students communicate clearly and effectively in the context of their research.
	Internal assessment	Students orally describe a visual stimulus, respond to questions on the stimulus and engage in a general conversation using appropriate language, register and format.
1. Understand and use accurately the basic structures of the language	Paper 1	Students demonstrate comprehension of written texts by responding to text-handling questions.
	Paper 2	Students demonstrate the ability to understand the task and respond appropriately using a variety of text types.

	Written assignment	Students demonstrate comprehension of a variety of texts selected for the purpose of researching their chosen topic and use basic structures accurately.
	Internal assessment	Students interact appropriately with the teacher, using a range of basic structures.

Assessment objective	Which component addresses this assessment objective?	How is the assessment objective addressed?
1. Understand and use an appropriate range of vocabulary	Paper 1	Students demonstrate comprehension of written texts through responding to text-handling questions.
	Paper 2	Students demonstrate the ability to use vocabulary appropriate to the topic.
	Written assignment	Students demonstrate comprehension of a variety of texts selected for the purpose of researching their chosen topic.
	Internal assessment	Students interact appropriately with the teacher on a range of topics.
1. Use a register that is appropriate to the situation	Paper 2	Students use a register appropriate to the task.
	Written assignment	Students write in a register appropriate to the task.
	Internal assessment	Students are able to talk to the teacher through/using an appropriate register.

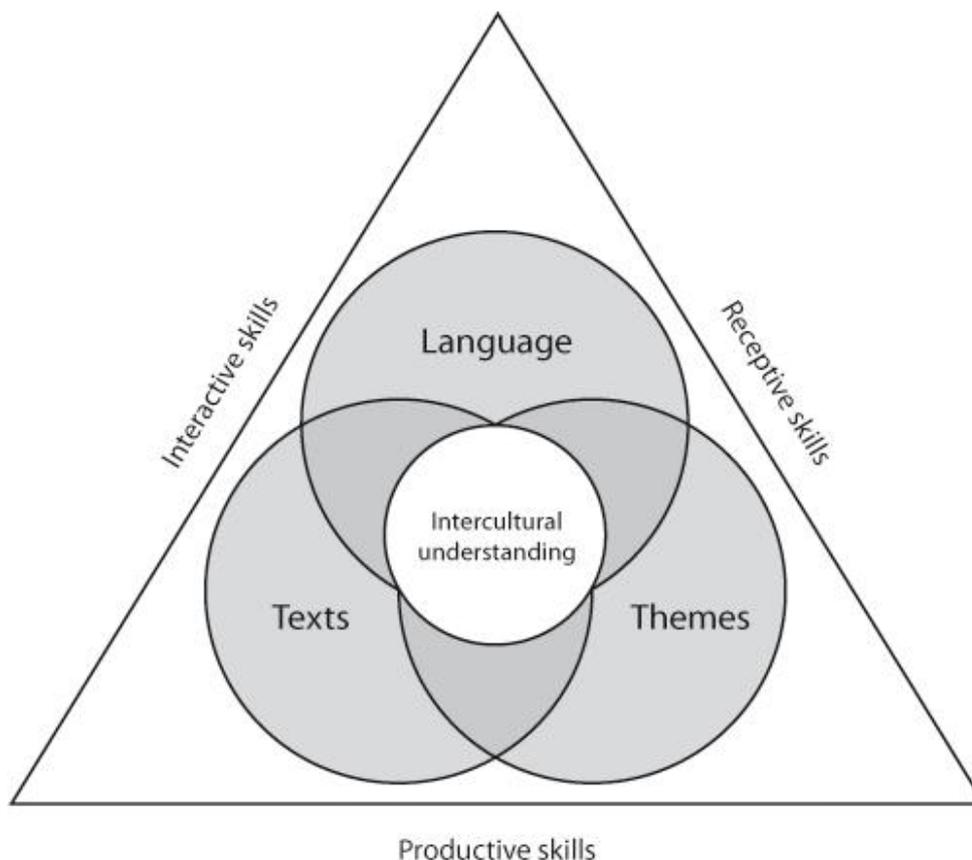
Syllabus content

The language ab initio syllabus is defined in two documents: the *Language ab initio guide* and the language-specific syllabus.

The language-specific syllabus is a document containing both the prescribed grammar and lexicon necessary in order for students to meet the assessment objectives of the language ab initio course. Each language ab initio course has its own language-specific syllabus. The three common elements in each language-specific syllabus are:

- vocabulary lists under topic headings
- a list of prescribed grammar
- a list of the instructions for the written examination papers.

The language ab initio syllabus comprises three interconnected areas: language, themes and texts.



Language ab initio syllabus outline

Three areas of study—language, texts and themes—provide the basis of the two-year language ab initio course. These three fundamental areas are interconnected

and should be studied concurrently. Interactive, productive and receptive skills are developed through study in these three areas and are of equal importance.

The language ab initio course is displayed above in a diagram with intercultural understanding at its heart to demonstrate both its importance and its interrelatedness within the areas of language, texts and themes. Intercultural understanding is defined as an ability to demonstrate an understanding of cultural diversity and/ or similarity between the target culture(s) and the student's own self . The student develops a greater awareness of his or her own culture(s) through learning about another. Intercultural understanding provides both the link between the three areas of the course and the lens through which they should be addressed.

It is essential that teachers are allowed the prescribed minimum number of teaching hours necessary to meet the requirements of the language ab initio course. The course is available at SL only; the minimum prescribed number of hours is 150.

Assessment outline

First examinations 2018	
Assessment component	Weighting
External assessment	75%
Paper 1 (1 hour 30 minutes): Receptive skills Understanding of four written texts. (40 marks) Text-handling exercises.	30%
Paper 2 (1 hour): Productive skills Two compulsory writing exercises. (25 marks) Section A (7 marks): One question to be answered from a choice of two. Section B (18 marks): One question to be answered from a choice of three.	25%
Written assignment: Receptive and productive skills A piece of writing, 200–350 words, demonstrating intercultural understanding and written in the target language . (20 marks)	20%
Internal assessment (10 minutes): Interactive skills Individual oral (25 marks) Three-part oral internally assessed by the teacher and externally moderated by the IB towards the end of the course.	25%

- | | |
|---|--|
| <ul style="list-style-type: none">• Part 1: Presentation of a visual stimulus (from a choice of two) by the student.• Part 2: Follow-up questions on the visual stimulus.• Part 3: General conversation including at least two questions on the written assignment. | |
|---|--|

External assessment

Two different methods are used to assess students.

- Detailed markschemes specific to each examination paper
- Assessment criteria

The assessment criteria are published in this guide. They are related to the assessment objectives established for the language ab initio course and the group 2 aims.

For paper 1, there are markschemes.

For paper 2, there are assessment criteria.

For the written assignment, there are assessment criteria.

Written examination papers

Two examination papers are set and marked externally—paper 1 and paper 2. They are designed to allow students to demonstrate their competencies in relation to the language ab initio assessment objectives. Paper 1 assesses receptive skills and paper 2 assesses productive skills.

Use of dictionaries and reference material

In papers 1 and 2 the use of dictionaries and reference material **is not** permitted. Students are allowed to use dictionaries and reference material for the written assignment.

Word count

Paper 2, section A: Students are required to write a minimum of 50 words (60 Mandarin characters or 100 Japanese characters).

Paper 2, section B: Students are required to write a minimum of 100 words (120 Mandarin characters or 200 Japanese characters).

Written assignment: Students are required to produce an assignment of 200-350 words. Work which falls significantly beneath the stated word count is unlikely to fully meet the stated requirements of the task and is likely to receive low marks. If the

word limit is exceeded, the assessment will be based on the first 350 words.

The three externally assessed components (paper 1, paper 2 and the written assignment) combine to give 75% of the assessment total.

Note: All responses must be in the target language.

Group 2 - Language grade descriptors

Grade 7 Excellent performance

Demonstrates understanding of most of the subtleties in speech and writing. Communicates with sophistication, with very few errors and using a range of advanced language.

Grade 6 Very good performance

Demonstrates understanding of some of the subtleties in speech and writing. Communicates with ease and fluency, with few errors and using some advanced language.

Grade 5 Good performance

Demonstrates competent understanding of all essential meaning in speech and writing. Consistently communicates coherently, with some errors and some range.

Grade 4 Satisfactory performance

Demonstrates competent understanding of basic meaning in speech and writing. Generally communicates coherently but with regular errors and little range.

Grade 3 Mediocre performance

Demonstrates some understanding of speech and writing. Communicates effectively at times.

Grade 2 Poor performance

Demonstrates limited understanding of speech and writing. Shows limited ability to communicate.

Grade 1 Very poor performance

Demonstrates very limited understanding of speech and writing. Shows very limited ability to communicate.

GROUP 3- Individuals and Societies

Subject: Economics HL/SL

Recommended Background Knowledge:

The economics course requires no specific prior learning. No particular background in terms of specific subjects studied for national or international qualifications is expected or required. The specific skills of the economics course are developed within the context of the course itself. The ability to understand and explain abstract concepts and the ability to write in a logically structured manner are distinct advantages in economics.

Course Description

The IB Diploma Programme Economics course forms part of group 3—individuals and societies. The study of economics is essentially about dealing with scarcity, resource allocation and the methods and processes by which choices are made for the satisfaction of human wants. As a dynamic social science, economics uses scientific methodologies that include quantitative and qualitative elements.

The course emphasizes the economic theories of microeconomics, which deal with economic variables affecting individuals, firms and markets, and the economic theories of macroeconomics, which deal with economic variables affecting countries, governments and societies. These economic theories are not to be studied in a vacuum—rather, they are to be applied to real-world issues. Prominent among these issues are fluctuations in economic activity, international trade, economic development and environmental sustainability.

The ethical dimensions involved in the application of economic theories and policies permeate throughout the economics course as students are required to consider and reflect on human end-goals and values.

The economics course encourages students to develop international perspectives, fosters a concern for global issues, and raises students' awareness of their own responsibilities at a local, national and international level. The course also seeks to develop values and attitudes that will enable students to achieve a degree of personal commitment in trying to resolve these issues, appreciating our shared responsibility as citizens of an increasingly interdependent world.

At both standard level and higher level, candidates are required to study four topics: microeconomics, macroeconomics, international economics and development economics with some sub-topics within these reserved solely for higher level. These sections are assessed by two examinations at standard level and three examinations at higher level.

In addition to the examinations, candidates must submit an internal assessment. Both standard level and higher level economics students must produce a portfolio of three commentaries based on articles from published news media.

Course Outline

1. Introduction to Economics:

History of Economic Thought, Positive and Normative Statements in Economics and Issues of Language and Value.

2. Microeconomics

- Competitive markets: demand and supply (**some topics HL only**)
- Elasticity
- Government intervention (**some topics HL extension, plus one topic HL only**)

- Market failure (**some topics HL only**)
 - Theory of the firm and market structures (HL only)**
3. Macroeconomics:
- The level of overall economic activity (**one topic HL extension**)
 - Aggregate demand and aggregate supply (**one topic HL only**)
 - Macroeconomic objectives (**some topics HL extension, plus one topic HL only**)
 - Fiscal policy
 - Monetary policy
 - Supply-side policies
4. International Economics:
- International trade (**one topic HL extension, plus one topic HL only**)
 - Exchange rates (**some topics HL extension**)
 - The balance of payments (**one topic HL extension, plus some topics HL only**)
 - Economic integration (**one topic HL extension**)
 - Terms of trade (HL only)**
5. Development Economics:
- Economic development
 - Measuring development
 - The role of domestic factors
 - The role of international trade (**one topic HL extension**)
 - The role of foreign direct investment (FDI)
 - The roles of foreign aid and multilateral development assistance
 - The role of international debt
 - The balance between markets and intervention

What are the main aims of this subject? (Adapted from IB Subject Guide)

- Systematic and critical study of: human experience and behavior; physical, economic and social environments; and the history and development of social and cultural institutions.
- To identify, to analyze critically and to evaluate theories, concepts and arguments about the nature and activities of the individual and society.
- Develop an awareness of development issues facing nations as they undergo the process of change.
- Develop an appreciation of the impact on individuals and societies of economic interactions between nations.
- Develop an understanding of microeconomic and macroeconomic theories and concepts and their real-world application.
- Recognize that the content and methodologies of the subjects in group 3 are contestable and that their study requires the tolerance of uncertainty.
- Describe and analyze data used in studies of society, to test hypotheses and to interpret complex data and source material.

Why students may take this subject?

Learning Economics gives insights into the general environment of resource allocation decisions, opportunity costs and project evaluation that are crucially important in many areas. Often these insights are not at all obvious, and can be

counter-intuitive, to those who don't apply economic reasoning. Because of the wide range of skills required and developed, training in Economics (especially to degree or Honors level) opens up many diverse career opportunities for a graduate. Because the skills acquired in studying Economics are transferable, Economics graduates get a wide variety of jobs, not just as economists.

Students who are thinking of studying commerce, finance, business, politics, or law at university or beyond will find the Economics course helpful in understanding the factors which influence these fields of study. Having good mathematical aptitudes allows better access to the course; however, the course is not dependent on a student also taking Mathematics SL/HL.

What is the difference between Higher Level (HL) and Standard Level (SL) in this subject?

SL and HL students of economics are presented with a common syllabus, with an HL extension in some topics. The syllabus for both SL and HL students requires the development of certain skills and techniques, attributes and knowledge—as described in the assessment objectives of the programme. While the skills and activity of studying economics are common to both SL and HL students, the HL student is required to acquire a further body of knowledge—including the ability to analyse, synthesize and evaluate that knowledge—and to develop quantitative skills in order to explain and analyse economic relationships. These quantitative skills are specifically assessed at HL in paper 3.

Assessment Information:

Assessment that goes towards the IB Diploma consists of the Internal Assessment, a portfolio of three commentaries based on news media extracts, linking economic theory to real-world situations, and the External Assessments, which at the Higher Level include three examination papers, an extended response, short-answer questions, and data-response questions. At the Standard Level, there are two papers, an extended response, and data-response questions.

Standard Level Higher level

Assessment component	Weighting
<p>External assessment (4 hours)</p> <p>Paper 1 (1 hour and 30 minutes) An extended response paper (50 marks) Assessment objectives 1, 2, 3, 4</p> <p>Section A Syllabus content: section 1—microeconomics Students answer one question from a choice of two. (25 marks)</p> <p>Section B Syllabus content: section 2—macroeconomics Students answer one question from a choice of two. (25 marks)</p> <p>Paper 2 (1 hour and 30 minutes) A data response paper (40 marks) Assessment objectives 1, 2, 3, 4</p> <p>Section A Syllabus content: section 3—international economics Students answer one question from a choice of two. (20 marks)</p> <p>Section B Syllabus content: section 4—development economics Students answer one question from a choice of two. (20 marks)</p> <p>Paper 3 (1 hour) HL extension paper (50 marks) Assessment objectives 1, 2 and 4 Syllabus content, including HL extension material: sections 1 to 4—microeconomics, macroeconomics, international economics, development economics Students answer two questions from a choice of three. (25 marks per question)</p>	<p>80%</p> <p>30%</p> <p>30%</p> <p>20%</p>

Assessment component	Weighting
<p>Internal assessment (20 teaching hours) This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.</p> <p>Students produce a portfolio of three commentaries, based on different sections of the syllabus and on published extracts from the news media.</p> <p>Maximum 750 words x 3 (45 marks)</p>	<p>20%</p>

Subject: Business and Management HL / SL:

Recommended Background Knowledge

No prior Knowledge required. No particular background in terms of specific subjects studied for national or international qualifications is expected or required and no prior knowledge of business and management is necessary for students to undertake a course of study based on this specification.

Course Description

Students who choose to undertake Business and Management at will develop an understanding of business theory and principles as well as practices and skills. The key emphasis is placed on strategic decision making and the day to day business functions of marketing, production, human re-source management and finance.

The course aims to help students understand the implications of business activity in the global market as well, as providing them with insights into an international perspective of business thus promoting their appreciation of cultural diversity through various units of study. In addition, the course will contribute to students' development as critical and effective participants in local and world affairs.

Course Objectives:

It is the intention of the Business and Management Course that students will;

- Demonstrate knowledge and understanding of business terminology, concepts, principles and theories
- Make business decisions by identifying the issue (s), selecting and interpreting data, applying appropriate tools and techniques and recommending suitable solutions
- Analyse and evaluate business decisions using a variety of sources
- Evaluate business strategies and or practices showing evidence of critical thinking
- Apply skills and knowledge learned in the subject to hypothetical and real business situations
- Communicate business ideas and information effectively and accurately using appropriate formats and tools
- Communicate business ideas and information effectively and accurately using appropriate formats and tools
- Synthesize knowledge in order to develop a framework for business decision making.

Course Outline:

Both Standard and Higher Level students will undertake the following units of work;

- Topic 1: Business Organization and Environment
- Topic 2: Human Resources Management
- Topic 3 Finance and Accounts
- Topic 4: Marketing
- Topic 5: Operations Management

What are the main aims of this subject? (Adapted from IB Subject Guide)

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

- encourage a holistic view of the world of business
- empower students to think critically and strategically about individual and

- organizational behaviour
- promote the importance of exploring business issues from different cultural perspectives
- enable the student to appreciate the nature and significance of change in a local, regional and global context
- promote awareness of the importance of environmental, social and ethical factors in the actions of individuals and organizations
- develop an understanding of the importance of innovation in a business environment.

Why students may consider this subject?

- To promote the appreciation of the way in which what has been learned is relevant to both the culture in which the student lives and the culture of other societies
- The subject enables the student to collect, describe and analyse data used in studies of society, to test hypotheses, and to interpret complex data and source material
- develop an awareness in the student that human attitudes and opinions are widely diverse and that a study of society requires an appreciation of such diversity enabling the student to recognise that the content and methodologies of the subjects in Group 3 are contestable and that their study requires the toleration of uncertainty

What is the difference between Higher Level (HL) and Standard Level (SL) in this subject?

The HL course in business management differs from the SL course in business management in terms of the:

- recommended hours devoted to teaching (240 hours for HL compared to 150 hours for SL)
- extra depth and breadth required (extension units for HL)
- nature of the internal assessment task
- nature of the examination questions.

Assessment:

Standard Level

External Assessment

- Paper 1: A pre-seen case study- 35%
- Paper 2: Data response questions- 40%

Internal Assessment

- Written commentary (1,500 words) on a real world problem involving any form of a business organization– 25%

Higher Level

External Assessment

- Paper 1: A pre-seen case study- 35%
- Paper 2: Data response questions- 40%

Internal Assessment

- Research essay (2,000 words) on a real world problem involving any form of a business organization

Subject: Psychology(HL/SL)

Psychology is the systematic study of behaviour and mental processes. Psychology has its roots in both the natural and social sciences, leading to a variety of research designs and applications, and providing a unique approach to understanding modern society.

IB psychology examines the interaction of biological, cognitive and sociocultural influences on human behaviour, thereby adopting an integrative approach. Understanding how psychological knowledge is generated, developed and applied enables students to achieve a greater understanding of themselves and appreciate the diversity of human behaviour. The ethical concerns raised by the methodology and application of psychological research are key considerations in IB psychology.

Psychology and the international dimension

IB psychology takes a holistic approach that fosters intercultural understanding and respect. In the core of the IB psychology course, the biological level of analysis demonstrates what all humans share, whereas the cognitive and sociocultural levels of analysis reveal the immense diversity of influences that produce human behaviour and mental processes. Cultural diversity is explored and students are encouraged to develop empathy for the feelings, needs and lives of others within and outside their own culture. This empathy contributes to an international understanding.

Distinction between SL and HL

Both SL and HL students are assessed on the syllabus core (levels of analysis) in paper 1. In addition:

- SL students are assessed on their knowledge and comprehension of one option in paper 2, whereas HL students are assessed on two options
- HL students are assessed on their knowledge and comprehension of qualitative research methodology in paper 3
- in the internal assessment, the report of a simple experimental study conducted by HL students requires inferential statistical analysis and a more in-depth approach than that required of SL students.

Prior learning

No prior study of psychology is expected. No particular background in terms of specific subjects studied for national or international qualifications is expected or required of students. The skills needed for the psychology course are developed during the course itself.

Group 3 aims

The aims of all subjects in **group 3, individuals and societies** are to:

- encourage the systematic and critical study of human experience and behaviour; physical, economic and social environments; and the history and development of social and cultural institutions
- develop in the student the capacity to identify, to analyse critically and to evaluate theories, concepts and arguments about the nature and activities of the individual and society
- enable the student to collect, describe and analyse data used in studies of society, to test hypotheses, and to interpret complex data and source material
- promote the appreciation of the way in which learning is relevant to both the culture in which the student lives, and the culture of other societies
- develop an awareness in the student that human attitudes and beliefs are widely diverse and that the study of society requires an appreciation of such diversity
- enable the student to recognize that the content and methodologies of the subjects in group 3 are contestable and that their study requires the toleration of uncertainty.

Psychology aims

In addition, the aims of the **psychology** course at SL and at HL are to:

- develop an awareness of how psychological research can be applied for the benefit of human beings
- ensure that ethical practices are upheld in psychological inquiry
- develop an understanding of the biological, cognitive and sociocultural influences on human behaviour
- develop an understanding of alternative explanations of behaviour
- understand and use diverse methods of psychological inquiry.

Assessment Objectives

Having followed the psychology course at SL or at HL, students will be expected to demonstrate the following.

- Knowledge and comprehension of specified content
 - Demonstrate knowledge and comprehension of key terms and concepts in psychology
 - Demonstrate knowledge and comprehension of psychological

research methods

— Demonstrate knowledge and comprehension of a range of appropriately identified psychological theories and research studies

— Demonstrate knowledge and comprehension of the biological, cognitive and sociocultural levels of analysis

— Demonstrate knowledge and comprehension of one option at SL or two options at HL

□ 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

— At HL only, analyse qualitative psychological research in terms of methodological, reflexive and ethical issues involved in research

□ Synthesis and evaluation

— Evaluate psychological theories and empirical studies

— Discuss how biological, cognitive and sociocultural levels of analysis can be used to explain behaviour

— Evaluate research methods used to investigate behaviour

□ Selection and use of skills appropriate to psychology

— Demonstrate the acquisition of knowledge and skills required for experimental design, data collection and presentation, data analysis and interpretation

— At HL only, analyse data using an appropriate inferential statistical test —
Write an organized response

Assessment objectives in practice

S. No	Objectives	Paper 1	Paper 2	Paper 3	Internal assessment	Overall
1.	Knowledge and comprehension of specified content	40%	40%	33% (HL)		30%
2.	Application and analysis	30%	20%	33% (HL)		25%
3.	Synthesis and evaluation	20%	20%	33% (HL)		15%
4.	Selection and use of skills appropriate to psychology	10%	20%		100%	30%

Syllabus outline

Syllabus component	Teaching hours	
	SL	HL
Part 1: Core (SL/HL) <ul style="list-style-type: none"> The biological level of analysis The cognitive level of analysis The sociocultural level of analysis 	90	90
Part 2: Options (SL/HL) <ul style="list-style-type: none"> Abnormal psychology Developmental psychology Health psychology Psychology of human relationships Sport psychology 	30	60
Part 3: Qualitative research methodology (HL only) <ul style="list-style-type: none"> Qualitative research in psychology 		50
Part 4: Simple experimental study (SL/HL) <ul style="list-style-type: none"> Introduction to experimental research methodology 	30	40
Total teaching hours	150	240

Syllabus

Part 1: Core

The study of the biological level of analysis, the cognitive level of analysis and the sociocultural level of analysis comprises the core of the psychology course.

The three levels of analysis focus on three fundamental influences on behaviour:

- biological
- cognitive
- sociocultural.

The interaction of these influences substantially determines behaviour.

The level of analysis approach reflects a modern trend in psychology towards

integration and demonstrates how explanations offered by each of the three levels of analysis (biological, cognitive and sociocultural) complement one another and together provide more complete and satisfactory explanations of behaviour.

The three levels of analysis can be usefully compared to three microscope lenses of different magnification. Each lens reveals a different picture of the intricate structure that exists at a variety of levels, but no single picture explains the whole object; a synthesis is necessary. Synthesis of the rich and diverse content of modern psychology is the chief aim of IB psychology.

Part 2: Options

The options have been chosen to provide continuity with the previous syllabus and to reflect developing fields in psychology.

There are five options.

- Abnormal psychology
- Developmental psychology
- Health psychology
- Psychology of human relationships
- Sport psychology

Students at SL must study **one** option. Students at HL must study **two** options.

The study of the core (levels of analysis) provides a foundation and a broad overview of psychology, whereas the options allow students the opportunity to study a specialized area of psychology in depth (including empirical studies and theories), according to their own particular interests.

Part 3: Qualitative research methodology

Qualitative research in psychology

Introduction

Qualitative research takes place in the real world, as opposed to the laboratory, and deals with how people give meaning to their own experiences. It involves research of behaviour in a natural setting, and is followed by an attempt to interpret the behaviour and the meanings that people have given to their experiences.

Qualitative research strategies include the use of observations, interviews and case studies, among others. These will often involve face-to-face interactions between researcher and participant where the researcher needs to be flexible and sensitive

to the needs of the social context within which the data is obtained. The data is subsequently analysed and interpreted. Generally the aim of qualitative research is to allow themes, categories or theories to emerge from the data, rather than to focus narrowly on preconceived ideas or hypotheses.

Sampling methods used in qualitative research are significantly different to those used in quantitative research. Random sampling is not normally used, as generalization of findings to a large population is less important. Purposive sampling is preferred in qualitative research; participants are often selected for their salient features, which are closely tied to the research aim.

The number of participants used in qualitative studies is often small and may, in some cases, be limited to a single individual. Qualitative research normally deals with few participants since its great value lies in understanding the in-depth experiences and feelings of individuals. Psychologists have learned much from the qualitative research that they currently employ and continue to develop, including the notion that it is possible, with considerable care, to offer a limited degree of generalization from their findings.

The qualitative approach needs to be transparent in the description of the methods that it uses since this adds to its credibility. Credibility improves when researchers are reflexive; they attempt to make readers of their research aware of their own potential researcher bias. In addition, it should be acknowledged that participants in the research may change their minds as the research proceeds. The methods used to produce data and the manner of analysis can and do influence research findings.

Particularly for those who are new to qualitative research, it is imperative to be able to tolerate a degree of uncertainty. Human behaviour is frequently complex; the meaning of similar experiences may be interpreted differently by individuals. For example, chronic injury may have a devastating effect upon elite athletes and their immediate family members since it may involve the end of a playing career and a substantial fall of income; but for others, the same injury may offer an opportunity to retire gracefully from the continual demands of their sport and to start a new career in a different area.

It is important for students to realize that qualitative and quantitative research complement each other. Each is suited to investigating different aspects of behaviour and should be used appropriately.

Part 4: Simple experimental study

Students are required to plan and undertake a simple experimental study and to produce a report of their study. A simple experimental study involves the

manipulation, by the student, of a single independent variable and the measurement of the effect of this independent variable on a dependent variable, while controlling other variables. Teachers should prepare students for the simple experimental study and the writing of the report.

Assessment outline—HL

First Examination in 2018

Assessment component	Weighting
External assessment (4 hours)	80%
Paper 1 (2 hours) Section A: Three compulsory questions on part 1 of the syllabus. Section B: Three questions on part 1 of the syllabus. Students choose one question to answer in essay form. (46 marks)	35%
Paper 2 (2 hours) Fifteen questions on part 2 of the syllabus. Students choose two questions to answer in essay form. (44 marks)	25%
Paper 3 (1 hour) Three compulsory questions based on an unseen text, covering part 3 of the syllabus. (30 marks)	20%
Internal assessment A report of a simple experimental study conducted by the student. (28 marks)	20%

External assessment

Two different methods are used to assess students.

- Detailed markschemes specific to each examination paper

4. Assessment criteria

The assessment criteria are published in this guide.

For paper 1, there are markschemes and assessment criteria.

For paper 2, there are markschemes and assessment criteria.

For paper 3, there are markschemes.

The assessment criteria are related to the assessment objectives established for the psychology course and the group 3 grade descriptors. The markschemes are specific to each examination.

Subject: Information Technology in Global Society HL/ SL

The IB Diploma Programme information technology in a global society (ITGS) course is the study and evaluation of the impacts of information technology (IT) on individuals and society. It explores the advantages and disadvantages of the access and use of digitized information at the local and global level. ITGS provides a framework for the student to make informed judgments and decisions about the use of IT within social contexts.

Although ITGS shares methods of critical investigation and analysis with other social sciences, it also considers social and ethical considerations that are common to other subjects in group 3. Students come into contact with IT on a daily basis because it is so pervasive in the world in which we live. This increasingly widespread use of IT inevitably raises important questions with regard to the social and ethical considerations that shape our society today. ITGS offers an opportunity for a systematic study of these considerations, whose range is such that they fall outside the scope of any other single discipline.

The nature of the subject is defined by the use of fundamental ITGS terms. For the purpose of the ITGS syllabus the following definitions apply.

- *Information technology* (IT) is the study, design, development, implementation, support or maintenance of computer-based information systems.
- *Social and ethical significance* refers to the effects that the development, implementation and use of information technology has on individuals and societies. Social impacts and ethical considerations are not mutually exclusive and are therefore categorized as a single entity. However, in general:
 - *social impacts* tend to refer to the effects of IT on human life
 - *ethical considerations* tend to refer to the responsibility and accountability involved in the design and implementation of IT.
- An *information system* is a collection of people, information technologies, data, processes and policies organized to accomplish specific functions and solve

specific problems.

ITGS has links with subjects not included in group 3, notably computer science, but it should be noted that there are clear differences between the subjects.

ITGS	Computer science
<p>In ITGS, people are central to the study of the subject. This is underpinned by a secure knowledge of the technology within the specified IT system. This technical knowledge ensures that the discussion of the effects of a new IT system on people will not be superficial.</p>	<p>In computer science, the emphasis is on a detailed knowledge of the computer system, followed by an awareness of its effects on people.</p>
<p>ITGS considers the internal workings of an IT system only to the extent of how it contributes to the understanding of a social impact or ethical issue.</p>	<p>Computer science emphasizes a detailed understanding of the logic and internal workings of a system.</p>

ITGS	Computer science
<p>ITGS is concerned with the development of IT systems, with particular emphasis on the effects on clients and end-users.</p>	<p>Computer science is concerned with algorithmic thinking and the ways in which a real-world problem can be decomposed in order to construct a working computable solution.</p>
<p>ITGS looks to implement a new IT system based on the use of currently available software.</p>	<p>Computer science looks to develop a new system using existing building blocks or by creating a totally novel approach as appropriate. This may involve the writing of new code in an appropriate programming environment.</p>

ITGS is concerned with activities such as choosing and using a spreadsheet, finding ways of using it more effectively, and educating other people about its use. It is concerned with the effects of using the software and obtaining reliable results that are beneficial to all who are affected by it.

Computer science examines real-world problems and produces algorithms from which useful software can be derived. The computer scientist creates the initial concepts and designs to produce appropriate and novel solutions to problems or by adapting existing solutions.

The main difference between ITGS and computer science relates to the focus of study. ITGS is about how people are affected by systems already in use and those planned for the future. Computer science looks first at the technology and then later at its interaction with those affected by it.

Some degree of overlap between the two subjects is intentional, inevitable and desirable.

Distinction between SL and HL

Students at standard level (SL) and higher level (HL) in ITGS are presented with a syllabus that has a common core consisting of three strands: social and ethical significance, application to specified scenarios, and IT systems. Higher level students also study the HL extension.

The HL course in ITGS differs from the SL course in ITGS as follows.

- The HL course has 240 hours devoted to teaching, compared with 150 hours for the SL course.
- HL students study the following as part of the HL extension, which consists of two additional topics in the IT systems strand:
 - IT systems in organizations
 - robotics, artificial intelligence and expert systems.
- The HL course has an additional externally assessed component that comprises a pre-seen case study based on a fictitious organization; this allows students to research various aspects of the subject, which may include new technical concepts and additional subject content, in greater depth.
- The HL topic “IT systems in organizations” requires a study of the theoretical frameworks behind the development of IT-based products and the management of IT projects. This builds on the “Introduction to project management” topic in the SL/HL core, which provides students with the skills and knowledge necessary to develop the work for the internal assessment (the project).

Prior learning

No particular background in terms of specific subjects studied for national or international qualifications is expected or required, and no prior knowledge of ITGS is necessary for students to undertake this course.

Group 3 aims

The aims of all subjects in **group 3, individuals and societies** are to:

1. encourage the systematic and critical study of: human experience and behaviour; physical, economic and social environments; and the history and development of social and cultural institutions
2. develop in the student the capacity to identify, to analyse critically and to evaluate theories, concepts and arguments about the nature and activities of the individual and society
3. enable the student to collect, describe and analyse data used in studies of society, to test hypotheses, and to interpret complex data and source material
4. promote the appreciation of the way in which learning is relevant both to the culture in which the student lives, and the culture of other societies
5. develop an awareness in the student that human attitudes and beliefs are widely diverse and that the study of society requires an appreciation of such diversity
6. enable the student to recognize that the content and methodologies of the subjects in group 3 are contestable and that their study requires the toleration of uncertainty.

ITGS aims

In addition, the aims of the **information technology in a global society (ITGS)** course at SL and HL are to:

7. enable the student to evaluate social and ethical considerations arising from the widespread use of IT by individuals, families, communities, organizations and societies at the local and global level
8. develop the student's understanding of the capabilities of current and emerging IT systems and to evaluate their impact on a range of stakeholders
9. enable students to apply their knowledge of existing IT systems to various scenarios and to make informed judgments about the effects of IT developments on them
10. encourage students to use their knowledge of IT systems and practical IT skills to justify IT solutions for a specified client or end-user.

Assessment objective:

There are four assessment objectives for the SL and HL Diploma Programme ITGS course. Having followed the course at SL or HL, students will be expected to demonstrate the following.

Assessment objective 1: Knowledge and understanding of specified content

- Demonstrate an awareness of IT applications and developments in specified scenarios
- Demonstrate an awareness of the social and ethical significance of specified IT applications and developments
- Demonstrate technical knowledge of ITGS terminology, concepts and tools
- Demonstrate technical knowledge of IT systems
- Demonstrate knowledge and understanding of topics related to the annually issued case study (**HLpaper 3 only**)

Assessment objective 2: Application and analysis

3. Explain the impacts of IT applications and developments in specified scenarios
4. Analyse the social and ethical significance of specified IT applications and developments
5. Transfer IT knowledge and make connections between specific scenarios
6. Apply technical knowledge of IT systems acquired through independent research to provide supporting evidence in possible decisions relating to future courses of action related to the annually issued case study (**HL paper 3 only**)

Assessment objective 3: Synthesis and evaluation

- Evaluate local and global impacts of specified IT developments through individually researched studies
- Evaluate a solution involving IT to a specified problem using knowledge of IT systems
- Discuss the social and ethical implications of specified IT policies and developments
- Evaluate, formulate and justify possible strategic courses of action related to the annually issued case study (**HL paper 3 only**)

Assessment objective 4: Use of ITGS skills

- Demonstrate evidence of project management in the development of a well-organized product to resolve a specific issue
- Use IT tools and the product development life cycle (PDLC) to create an original product in consultation with a client

- Demonstrate evidence of the use of appropriate techniques to develop an original IT product

The following tables show the percentage weighting for each of the assessment objectives across each of the components. This may differ from the allocation of time devoted to each of the assessment objectives in class.

Standard level

Assessment objective	Paper 1	Paper 2	Internal assessment	Overall
1. Knowledge and understanding of specified content	20	10	8	38
2. Application and analysis	14	10	5	29
3. Synthesis and evaluation	6	10	4	20
4. Use of ITGS skills	n/a	n/a	13	13
Component weighting	40%	30%	30%	100%

Higher level

Assessment objective	Paper 1	Paper 2	Paper 3	Internal assessment	Overall
1. Knowledge and understanding of specified Content	18	7	10	5	40
2. Application and analysis	12	7	8	3	30
3. Synthesis and evaluation	5	6	7	3	21
4. Use of ITGS skills	n/a	n/a	n/a	9	9
Component weighting	35%	20%	25%	20%	100%

At either level (SL or HL) the ITGS course consists of three compulsory

interconnected strands that reflect the integrated nature of the course.

- **Strand 1:** Social and ethical significance
- **Strand 2:** Application to specified scenarios
- **Strand 3:** IT systems

Syllabus component	Suggested teaching hours	
	SL	HL
Strand 1: Social and ethical significance		
SL/HL core	40	40
Social and ethical considerations linked to specified IT developments.		
Students must study the following 12 issues.		
1.1 Reliability and integrity		
1.2 Security		
1.3 Privacy and anonymity		
1.4 Intellectual property		
1.5 Authenticity		
1.6 The digital divide and equality of access		
1.7 Surveillance		
1.8 Globalization and cultural diversity		
1.9 Policies		
1.10 Standards and protocols		
1.11 People and machines		
1.12 Digital citizenship		
HL extension	—	20
Social and ethical considerations linked to the two HL extension topics and the issues raised by the annually issued case study.		

Syllabus outline			
Syllabus component		Suggested teaching hours	
		SL	HL
Strand 2: Application to specified scenarios			
SL/HL core		40	40
Scenarios based on real-life situations must be used when addressing specified IT developments.			
Students must study the following 6 themes.			
2.1	Business and employment		
2.2	Education and training		
2.3	Environment		
2.4	Health		
2.5	Home and leisure		
2.6	Politics and government		
HL extension		—	35
Scenarios based on real-life situations must be used when addressing specified IT developments in the two HL extension topics and the annually issued case study.			
Strand 3: IT systems			
SL/HL core		40	40
The terminology, concepts and tools relating to specified IT developments.			
Students must study the following 9 topics.			
3.1	Hardware		
3.2	Software		
3.3	Networks		
3.4	Internet		
3.5	Personal and public communications		
3.6	Multimedia/digital media		
3.7	Databases		
3.8	Spreadsheets, modelling and simulations		
3.9	Introduction to project management		
HL extension		—	35
Students must study the following topics.			

3.10	IT systems in organizations		
3.11	Robotics, artificial intelligence and expert systems		
3.12	Information systems specific to the annually issued case study		

Syllabus component	Suggested teaching hours	
	SL	HL
The project (practical application of IT skills) The application of skills and knowledge to develop an original IT product for a specified client.	30	30
Total teaching hours	150	240

Group 3 – Individuals and Societies grade descriptors

Grade 7 Excellent performance

Demonstrates understanding of most of the subtleties in speech and writing. Communicates with sophistication, with very few errors and using a range of advanced language.

Grade 6 Very good performance

Demonstrates understanding of some of the subtleties in speech and writing. Communicates with ease and fluency, with few errors and using some advanced language.

Grade 5 Good performance

Demonstrates competent understanding of all essential meaning in speech and writing. Consistently communicates coherently, with some errors and some range.

Grade 4 Satisfactory performance

Demonstrates competent understanding of basic meaning in speech and writing. Generally communicates coherently but with regular errors and little range.

Grade 3 Mediocre performance

Demonstrates some understanding of speech and writing. Communicates effectively at times.

Grade 2 Poor performance

Demonstrates limited understanding of speech and writing. Shows limited ability to

communicate.

Grade 1 Very poor performance

Demonstrates very limited understanding of speech and writing. Shows very limited ability to communicate.

Group 4- Experimental Sciences

Subject: Biology HL/ SL

Recommended Background Knowledge:

Successful completion of IGCSE Biology, preferably with A Grade in Grade 10 IGCSE for choosing HL is necessary. If it was a combined science in other board then recommendations from Science teacher is required.

New Students: Placement level of new students will be determined on a case by case basis.

Course Description

The purpose of studying Biology is to provide learning experiences through which students will:

- Acquire knowledge and understanding about
 - fundamental concepts related to living things and their environments,
 - The historical development of these concepts and their application to personal, social, economic, technological and environmental situations.
- understanding of models and concepts
- the explanation of generalised biology terms
- the collection and organisation of information and problem-solving,
- the use of subject related communication skills
- Develop positive attitudes towards the study of living things,
- the environment and the opinions held by others,
- recognizing the importance of evidence and the use of critical evaluation of different scientific opinions related to various aspects of biology.

Main Course Objectives: (adapted from IB Subject Guide)

Having completed the course students will be expected to:

- Demonstrate an understanding of;
 - scientific facts and concepts,
 - scientific methods and techniques,
 - scientific terminology,
 - methods of presenting scientific information.
- Apply and use all of the above in different situations.
- Construct, analyse and evaluate, hypotheses, research questions and predictions, scientific methods and techniques, scientific explanations.

Demonstrate the personal skills of cooperation, perseverance and responsibility appropriate for effective scientific investigation and problem solving.

Course Outline:

Core

1. Cell biology
2. Molecular biology
3. Genetics
4. Ecology
5. Evolution and biodiversity
6. Human physiology

Additional higher level (AHL)

7. Nucleic acids
8. Metabolism, cell respiration and photosynthesis
9. Plant biology
10. Genetics and evolution
11. Animal physiology

Option

- A. Neurobiology and behaviour
- B. Biotechnology and bioinformatics
- C. Ecology and conservation
- D. Human physiology

Practical scheme of work

- Practical activities
- Individual investigation (internal assessment–IA)
- Group 4 project

What are the main aims of this subject? (adapted from IB Subject Guide)

The main aim of all group 4 courses is to provide students with the opportunities for scientific study and creativity within a global context that will stimulate and challenge them. Students will be provided with a body of knowledge, methods and techniques that characterize science and technology in their chosen subject. Group 4 courses also aim to develop the students' ability to analyze, evaluate and synthesize scientific information.

Why students may consider this subject?

Students who have an interest in the natural sciences or Medicine, or who wish to pursue any science discipline in general at the post-secondary level. Biology is also the least Mathematical of the three traditional sciences; Biology and Mathematical Studies can be a common combination.

What is the difference between Higher Level (HL) and Standard Level (SL) in this subject?

Subjects at HL are studied in greater depth and breadth than at SL. There are five additional HL topics covered in the course.

Assessment Information:

Assessment that goes towards the IB Diploma consists of the Internal Assessment, where student and teacher select the best two Science labs from many done over the two year course, and the External Assessments, which at both HL and SL include three examination papers; a multiple choice paper and two papers both requiring a mixture of short and extended responses. At HL there are more extended response questions.

HIGHER LEVEL (HL)

External Assessment (80%)

- Paper 1** Multiple Choice (20%)
- Paper 2** Short Answer and two extended responses (36%)
- Paper 3** (24%)
- Short-answer questions based on
 - experimental skills and techniques, analysis and evaluation and
 - One option

Internal Assessment (20%) (HL and SL)

- One scientific investigation**
- Student work is internally assessed by the teacher and externally moderated by the IB. The performance in internal assessment at both SL and HL is marked against common assessment criteria.

STANDARD LEVEL (SL)

External Assessment (80%)

- Paper 1** Multiple Choice (20%)
- Paper 2** Short Answer and one extended response (40%)
- Paper 3** (20%)
- Short-answer questions based on
 - experimental skills and techniques, analysis and evaluation and
 - One option

Group 4 Project: This is one major project done as a single group activity by all IB Physics/ Chemistry/Biology students in Year 12 for 10 hours but does not count towards the final Diploma Grade. It is an interdisciplinary requirement by the IBO for all Sciences.

Group 4 - Experimental Sciences

Subject: Chemistry HL/SL

Recommended Background Knowledge:

Successful completion of IGCSE Chemistry preferably with A Grade in Grade 10 (IGCSE) for choosing HL. If it was a combined science in national board then recommendations from Science teacher is required.

New Students: Placement level of new students will be determined on a case by case basis

Course Description:

Chemistry is called the central science, as chemical principles underpin both the physical environment in which we live and all biological systems. This course seeks to describe and explain the nature and properties of matter, from atomic structure and chemical formulas to drug design and reaction pathways. The historical development of chemical concepts and their application to personal, social and global issues is emphasized. Practical laboratory experience and use of scientific analysis are key parts of the learning strategy embodied in this course.

Course Outline

HL & SL students study the following subject specific core topics:

- Stoichiometric relationships
- Atomic structure
- Periodicity
- Chemical bonding and structure
- Energetics/thermochemistry
- Chemical kinetics
- Equilibrium
- Acids and bases
- Redox processes
- Organic chemistry
- Measurement and data processing

HL students study the additional subject specific topics:

- Atomic structure
- The periodic table—the transition metals
- Chemical bonding and structure
- Energetics/thermochemistry
- Chemical kinetics
- Equilibrium
- Acids and bases
- Redox processes
- Organic chemistry
- Measurement and analysis

Options: Both SL & HL choose two options from A – D.

- A. Materials
- B. Biochemistry
- C. Energy
- D. Medicinal chemistry

Practical scheme of work

- Practical activities
- Individual investigation (internal assessment—IA)
- Group 4 project

What are the main aims of this subject? (Adapted from IB Subject Guide)

Through studying biology, chemistry or physics, students should become aware of how scientists work and communicate with each other. While the scientific method may take on a wide variety of forms, it is the emphasis on a practical approach through experimental work that characterizes these subjects.

The aims enable students, through the overarching theme of the Nature of science, to:

1. appreciate scientific study and creativity within a global context through stimulating and challenging opportunities
2. acquire a body of knowledge, methods and techniques that characterize science and technology
3. apply and use a body of knowledge, methods and techniques that characterize science and technology
4. develop an ability to analyse, evaluate and synthesize scientific information
5. develop a critical awareness of the need for, and the value of, effective collaboration and communication during scientific activities
6. develop experimental and investigative scientific skills including the use of current technologies
7. develop and apply 21st century communication skills in the study of science
8. become critically aware, as global citizens, of the ethical implications of using science and technology
9. develop an appreciation of the possibilities and limitations of science and technology
10. develop an understanding of the relationships between scientific disciplines and their influence on other areas of knowledge

Why students may consider this subject?

Students who have an interest in Chemistry, Engineering, Medicine, or who wish to pursue any science discipline in general at the post-secondary level. There is some Mathematics involved in Chemistry however it is possible for students to choose Mathematical Studies and Chemistry.

What is the difference between Higher Level (HL) and Standard Level (SL) in this subject?

Group 4 students at standard level (SL) and higher level (HL) undertake a common core syllabus, a common internal assessment (IA) scheme and have some overlapping elements in the option studied. They are presented with a syllabus that encourages the development of certain skills, attributes and attitudes.

While the skills and activities of group 4 science subjects are common to students at both SL and HL, students at HL are required to study some topics in greater depth, in the additional higher level (AHL) material and in the common options. The distinction between SL and HL is one of breadth and depth.

Main Course Objectives: (adapted from IB Subject Guide)

The assessment objectives for biology, chemistry and physics reflect those parts of the aims that will be formally assessed either internally or externally. These assessments will center upon the nature of science. It is the intention of these courses that students are able to fulfill the following assessment objectives:

1. Demonstrate knowledge and understanding of:

- a. facts, concepts, and terminology
 - b. methodologies and techniques
 - c. communicating scientific information.
2. Apply:
 - a. facts, concepts, and terminology
 - b. methodologies and techniques
 - c. methods of communicating scientific information.
 3. Formulate, analyse and evaluate:
 - a. hypotheses, research questions and predictions
 - b. methodologies and techniques
 - c. primary and secondary data
 - d. scientific explanations.
 4. Demonstrate the appropriate research, experimental, and personal skills necessary to carry out insightful and ethical investigations.

Assessment Information:

General

Assessment is an integral part of teaching and learning. The most important aims of assessment in the Diploma Programme are that it should support curricular goals and encourage appropriate student learning. Both external and internal assessments are used in the Diploma Programme. IB examiners mark work produced for external assessment, while work produced for internal assessment is marked by teachers and externally moderated by the IB.

There are two types of assessment identified by the IB.

- Formative assessment involves both teaching and learning. It is concerned with providing accurate and helpful feedback to students and teachers on the kind of learning taking place and the nature of students' strengths and weaknesses in order to help develop students' understanding and capabilities. Formative assessment can also help to improve teaching quality, as it can provide information to monitor progress towards meeting the course aims and objectives.
- Summative assessment gives an overview of previous learning and is concerned with measuring student achievement.

HIGHER LEVEL

External Assessment(80%) Paper 1 Multiple Choice (20%)

Duration: 1hour Weighting: 20% Marks: 40

- 40 multiple-choice questions on core and AHL, about 15 of which are common with SL.
- The questions on paper 1 test assessment objectives 1, 2 and 3.
- The use of calculators is not permitted.
- Students will be provided with a periodic table.
- No marks are deducted for incorrect answers.

Paper 2 Short Answer and two extended responses (36%)

Duration: 2¼ hours

Weighting: 36%

Marks: 95

- This paper will have questions on core, AHL and option material.
- Section A: one data-based question and several short-answer questions on experimental work.
- Section B: short-answer and extended-response questions from one option.
- The questions on paper 3 test assessment objectives 1, 2 and 3.
- The use of calculators is permitted.
- A chemistry data booklet is to be provided by the school.

Paper 3

Duration: 1¼ hours

Weighting: 24%

Marks: 45

- This paper will have questions on core, AHL and option material.
- Section A: one data-based question and several short-answer questions on experimental work.
- Section B: short-answer and extended-response questions from one option.
- The questions on paper 3 test assessment objectives 1, 2 and 3.
- The use of calculators is permitted. (See calculator section on the OCC.)
- A chemistry data booklet is to be provided by the school.

Internal Assessment (20%)

Practical Work

Duration: 10 hours

Weighting: 20%

- Individual investigation
- This investigation covers assessment objectives 1, 2, 3 and 4.

STANDARD LEVEL External Assessment(80%)

Paper 1 - Multiple Choice (20%) Duration: ¾ hour

Weighting: 20% Marks: 30

- 30 multiple-choice questions on core, about 15 of which are common with HL.
- The questions on paper 1 test assessment objectives 1, 2 and 3.
- The use of calculators is not permitted.
- Students will be provided with a periodic table.
- No marks are deducted for incorrect answers.

Paper 2 - Short Answer and two extended responses (40%)

Duration: 1¼ hours

Weighting: 40%

Marks: 50

- Short-answer and extended-response questions on core material.
- The questions on paper 2 test assessment objectives 1, 2 and 3.
- The use of calculators is permitted.
- A chemistry data booklet is to be provided by the school.

Paper 3

Duration: 1 hour

Weighting: 20%

Marks: 35

- This paper will have questions on core and SL option material.
- Section A: one data-based question and several short-answer questions on experimental work.
- Section B: short-answer and extended-response questions from one option.
- The questions on paper 3 test assessment objectives 1, 2 and 3.
- The use of calculators is permitted.
- A chemistry data booklet is to be provided by the school.

Internal Assessment (20%)

Practical Work

Duration: 10 hours

Weighting: 20%

- Individual investigation
- This investigation covers assessment objectives 1, 2, 3 and 4.

The group 4 project It is an interdisciplinary activity in which all Diploma Programme science students must participate. The intention is that students from the different group 4 subjects analyse a common topic or problem. The exercise should be a collaborative experience where the emphasis is on the processes involved in, rather than the products of, such an activity.

Group 4 - Experimental Sciences

Subject: Physics HL/SL

Recommended Background Knowledge:

Successful completion of IGCSE Physics Preferable A Grade in Grade 10 for choosing HL and if from any other board then Recommendation from Science teacher.

New Students: Placement level of new students will be determined on a case by case basis

Course Description:

Physics is the most fundamental of all the sciences as it seeks to explain the universe itself from the very small (quarks) to the very large (galaxies). This course also considers the development and application of theories and laws ranging from classical to quantum electrodynamics (QED) and relativity, the historical development of these concepts and their application to personal, social, economic, technological and environmental situations. Experimental methodology and analysis (or “scientific method”) will be a key feature in assisting students to understand these interactions and principles.

Core

1. Measurements and uncertainties
2. Mechanics
3. Thermal physics

4. Waves
5. Electricity and magnetism
6. Circular motion and gravitation
7. Atomic, nuclear and particle physics
8. Energy production

Additional higher level (AHL)

9. Wave phenomena
10. Fields
11. Electromagnetic induction
12. Quantum and nuclear physics

Option

1. Relativity
2. Engineering physics
3. Imaging
4. Astrophysics

Practical scheme of work

- Practical activities
- Individual investigation (internal assessment – IA)
- Group 4 project

What are the main aims of this subject? (adapted from IB Subject Guide)

The main aim of all group 4 courses is to provide students with the opportunities for scientific study and creativity within a global context that will stimulate and challenge them. Students will be provided with a body of knowledge, methods and techniques that characterize science and technology in their chosen subject. Group 4 courses also aim to develop the students' ability to be able to analyze, evaluate and synthesize scientific information.

Why students may consider this subject?

Students with a strong background in Mathematics and a keen interest in physics and physical phenomena. Students with a technology and engineering interest should also consider physics. It would be unusual for a student to choose Physics and Mathematical Studies as the Physics course requires some knowledge of Mathematical skills that are delivered in the Math SL subject.

What is the difference between Higher Level (HL) and Standard Level (SL) in this subject?

Group 4 students at standard level (SL) and higher level (HL) undertake a common core syllabus, a common internal assessment (IA) scheme and have some overlapping elements in the option studied. They are presented with a syllabus that encourages the development of certain skills, attributes and attitudes, as described in the "Assessment objectives" section of the guide.

While the skills and activities of group 4 science subjects are common to students at both SL and HL, students at HL are required to study some topics in greater depth, in the additional higher level (AHL) material and in the common options. The distinction between SL and HL is one of breadth and depth.

Main Course Objectives: (adapted from IB Subject Guide)

Having completed the course students will be able to:

- Demonstrate an understanding of scientific facts and concepts, scientific methods and techniques, scientific terminology, methods of presenting

- scientific information.
- Apply and use all of the above in different situations.
- Construct, analyse and evaluate, hypotheses, research questions and predictions, scientific methods and techniques, scientific explanations.
- Demonstrate the personal skills of cooperation, perseverance and responsibility appropriate for effective scientific investigation and problem solving...

Assessment Information:

Assessment that goes towards the IB Diploma consists of the Internal Assessment, where student and teacher select the best two Science labs from many done over the two year course, and the External Assessments, which at both HL and SL include three examination papers; a multiple choice paper and two papers both requiring a mixture of short and extended responses. At HL there are more extended response questions.

External assessment details—SL

Paper 1

Duration: 3/4 hour

Weighting: 20%

Marks: 30

- 30 multiple-choice questions on core, about 15 of which are common with HL.
- The questions on paper 1 test assessment objectives 1, 2 and 3.
- The use of calculators is not permitted.
- No marks are deducted for incorrect answers.

A physics data booklet is provided.

Paper 2

Duration: 1¼ hours

Weighting: 40%

Marks: 50

- Short-answer and extended-response questions on core material.
- The questions on paper 2 test assessment objectives 1, 2 and 3.
- The use of calculators is permitted. (See calculator section on the OCC.)

A physics data booklet is provided.

Paper 3

Duration: 1 hour

Weighting: 20%

Marks: 35

- This paper will have questions on core and SL option material.
- Section A: one data-based question and several short-answer questions on experimental work.
- Section B: short-answer and extended-response questions from one option.
- The questions on paper 3 test assessment objectives 1, 2 and 3.
- The use of calculators is permitted. (See calculator section on the OCC.)
- A physics data booklet is provided.

External assessment details—HL

Paper 1

Duration: 1 hour

Weighting: 20%

Marks: 40

- 40 multiple-choice questions on core and AHL, about 15 of which are common with SL.
- The questions on paper 1 test assessment objectives 1, 2 and 3.
- The use of calculators is not permitted.
- No marks are deducted for incorrect answers.

A physics data booklet is provided.

Paper 2

Duration: 2¼ hours

Weighting: 36%

Marks: 95

- Short-answer and extended-response questions on the core and AHL material.
- The questions on paper 2 test assessment objectives 1, 2 and 3.
- The use of calculators is permitted. (See calculator section on the OCC.)

A physics data booklet is provided.

Paper 3

Duration: 1¼ hours

Weighting: 24%

Marks: 45

- This paper will have questions on core, AHL and option material.
- Section A: one data-based question and several short-answer questions on experimental work.
- Section B: short-answer and extended-response questions from one option.
- The questions on paper 3 test assessment objectives 1, 2 and 3.
- The use of calculators is permitted. (See calculator section on the OCC.)
- A physics data booklet is provided.

Internal Assessment(24%) Practical Work(24%)

Students complete written practical reports associated with experimental work and complete an interdisciplinary Group 4 Project that enables students in all experimental sciences to explore a common topic.

Group 4 Project: This is one major project done as a single group activity by all IB Physics/ Chemistry/Biology students in Year 11 for 15 hours within the internal assessment but does not count towards the final Diploma Grade. It is an interdisciplinary requirement by the IBO for all Sciences.

Group 4 – Experimental Sciences Grade Descriptors

Grade 7 Excellent performance

Displays comprehensive knowledge of factual information in the syllabus and a thorough command of concepts and principles. Selects and applies relevant information, concepts and principles in a wide variety of contexts. Analyses and evaluates quantitative and/or qualitative data thoroughly. Constructs detailed explanations of complex phenomena and makes appropriate predictions. Solves most quantitative and/or qualitative problems proficiently. Communicates logically and concisely using appropriate terminology and conventions. Shows insight or originality.

Demonstrates personal skills, perseverance and responsibility in a wide variety of

investigative activities in a very consistent manner. Works very well within a team and approaches investigations in an ethical manner, paying full attention to environmental impact. Displays competence in a wide range of investigative techniques, paying considerable attention to safety, and is fully capable of working independently.

Grade 6 Very good performance

Displays very broad knowledge of factual information in the syllabus and a thorough understanding of concepts and principles. Selects and applies relevant information, concepts and principles in most contexts. Analyses and evaluates quantitative and/or qualitative data with high level of competence. Constructs explanations of complex phenomena and makes appropriate predictions. Solves basic or familiar problems and most new or difficult quantitative and/qualitative problems. Communicates effectively using appropriate terminology and conventions. Shows occasional insight or originality.

Demonstrates personal skills, perseverance and responsibility in a wide variety of investigative activities in a very consistent manner. Works well within a team and approaches investigations in an ethical manner, paying due attention to environmental impact. Displays competence in a wide range of investigative techniques, paying due attention to safety, and is generally capable of working independently.

Grade 5 Good performance

Displays broad knowledge of factual information in the syllabus. Shows sound understanding of most concepts and principles and applies them in some contexts. Analyses and evaluates quantitative and/or qualitative data competently. Constructs explanations of simple phenomena. Solves most basic or familiar problems and some new or difficult quantitative and/or qualitative problems. Communicates clearly with little or no irrelevant material.

Demonstrates personal skills, perseverance and responsibility in a variety of investigative activities in a fairly consistent manner. Generally works well within a team and approaches investigations in an ethical manner, paying attention to environmental impact. Displays competence in a range of investigative techniques, paying attention to safety, and is sometimes capable of working independently.

Grade 4 Satisfactory performance

Displays reasonable knowledge of factual information in the syllabus, though possibly with some gaps. Shows adequate comprehension of most basic concepts and principles but with limited ability to apply them. Demonstrates some analysis or evaluation of quantitative or qualitative data. Solves some basic or routine problems but shows limited ability to deal with new or difficult situations. Communicates adequately although responses may lack clarity and include some repetitive or irrelevant material. Demonstrates personal skills, perseverance and responsibility in a variety of investigative activities, although displays some inconsistency. Works within a team and generally approaches investigations in an ethical manner, with some attention to environmental impact. Displays competence in a range of investigative techniques, paying some attention to safety, although requiring some close supervision.

Grade 3 Mediocre performance

Displays limited knowledge of factual information in the syllabus. Shows a partial comprehension of basic concepts and principles and weak ability to apply them. Shows some ability to manipulate data and solve basic or routine problems. Communicates with a possible lack of clarity and some repetitive or irrelevant material. Demonstrates personal skills, perseverance and responsibility in some investigative activities in an inconsistent manner. Works within a team and sometimes approaches investigations in an ethical manner, with some attention to environmental impact. Displays competence in some investigative techniques, occasionally paying attention to safety, and requires close supervision.

Grade 2 Poor performance

Displays little recall of factual information in the syllabus. Shows weak comprehension of basic concepts and principles and little evidence of application. Exhibits minimal ability to manipulate data and little or no ability to solve problems. Offers responses which are often incomplete or irrelevant. Rarely demonstrates personal skills, perseverance or responsibility in investigative activities. Works within a team occasionally but makes little or no contribution. Occasionally approaches investigations in an ethical manner, but shows very little awareness of the environmental impact. Displays competence in a very limited range of investigative techniques, showing little awareness of safety factors and needing continual and close supervision.

Grade 1 Very poor performance

Recalls fragments of factual information in the syllabus and shows very little understanding of any concepts or principles. Rarely demonstrates personal skills, perseverance or responsibility in investigative activities. Does not work within a team. Rarely approaches investigations in an ethical manner, or shows an awareness of the environmental impact. Displays very little competence in investigative techniques, generally pays no attention to safety, and requires constant supervision.

Group-4 Mathematics

Subject: Mathematics SL

This course caters for students who already possess knowledge of basic mathematical concepts, and who are equipped with the skills needed to apply simple mathematical techniques correctly. The majority of these students will expect to need a sound mathematical background as they prepare for future studies in subjects such as chemistry, economics, psychology and business administration. The course focuses on introducing important mathematical concepts through the development of mathematical techniques. The intention is to introduce students to these concepts in a comprehensible and coherent way. Students should, wherever possible, apply the mathematical knowledge they have acquired to solve realistic problems set in an appropriate context.

The internally assessed component, the exploration, offers students the opportunity for developing independence in their mathematical learning. Students are encouraged to take a considered approach to various mathematical activities and to

explore different mathematical ideas. The exploration also allows students to work without the time constraints of a written examination and to develop the skills they need for communicating mathematical ideas.

The aims of mathematics standard level courses

1. Enjoy mathematics, and develop an appreciation of the elegance and power of mathematics
2. Develop an understanding of the principles and nature of mathematics
3. Communicate clearly and confidently in a variety of contexts
4. Develop logical, critical and creative thinking, and patience and persistence in problem-solving
5. Appreciate how developments in technology and mathematics have influenced each other
6. Appreciate the moral, social and ethical implications arising from the work of mathematicians and the applications of mathematics
7. Appreciate the international dimension in mathematics through an awareness of the universality of mathematics and its multicultural and historical perspectives
8. Appreciate the contribution of mathematics to other disciplines, and as a particular “Area of knowledge” in the TOK course.

Prior knowledge

Students will have a wide variety of skills and knowledge required when they start the mathematics SL course. Most will have some background in arithmetic, algebra, geometry, trigonometry, probability and statistics. Some will be familiar with an inquiry approach, and may have had an opportunity to complete an extended piece of work in mathematics.

Syllabus outline

All topics are compulsory. Students must study all the sub-topics in each of the topics in the syllabus as listed in this guide. Students are also required to be familiar with the topics listed as prior learning.	
Syllabus Component	Teaching hours
Topic 1	
Algebra	9
Topic 2	
Functions and equations	24
Topic 3	
Circular functions and trigonometry	16
Topic 4	
Vectors	16
Topic 5	
Statistics and probability	35
Topic 6	
Calculus	40
Mathematical exploration	

Internal assessment in mathematics SL is an individual exploration.	
This is a piece of written work that involves investigating an area of	
mathematics.	10
Total teaching hours	150

ASSESSMENT OBJECTIVES

- 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 real and abstract 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.
- 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 real-world, involving organizing and analyzing information, making conjectures, drawing conclusions and testing their validity.
- 7.

Paper wise distribution of Assessment objectives.

Assessment objectives	Paper 1	Paper 2	Exploration	Overall
Knowledge and understanding	20 – 30	15 – 25	7 – 13	15 – 25
Problem-solving	20 – 30	15 – 25	11 – 19	15 – 25
Communication and Interpretation	20 – 30	15 – 25	15 – 25	15 – 25
Technology	0	25 – 35	3 – 7	10 – 20
Reasoning	7 – 13	3 – 7	15 – 25	5 – 15
Inquiry approaches	11 – 19	3 – 7	25 – 35	10 – 20
Assessment component				
External assessment (3 hours)				
Paper 1 (1 hour 30 minutes)				
No calculator allowed. (90 marks)				
Section A				
Compulsory short-response questions based on the whole syllabus.				
Section B				
Compulsory extended-response questions based on the whole syllabus.				

Paper 2 (1 hour 30 minutes)	
Graphic display calculator required. (90 marks)	
Section A	
Compulsory short-response questions based on the whole syllabus.	
Section B	
Compulsory extended-response questions based on the whole syllabus.	
Internal assessment	
This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.	

Mathematical exploration

Internal assessment in mathematics SL is an individual exploration. This is a piece of written work that involves investigating an area of mathematics. (20 marks)

Mathematics HL—course details

The course focuses on developing important mathematical concepts in a comprehensible, coherent and rigorous way. This is achieved by means of a carefully balanced approach. Students are encouraged to apply their mathematical knowledge to solve problems set in a variety of meaningful contexts. Development of each topic should feature justification and proof of results. Students embarking on this course 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. They should also be encouraged to develop the skills needed to continue their mathematical growth in other learning environments.

6 Mathematics HL guide

Nature of the subject

The internally assessed component, the exploration, offers students the opportunity for developing independence in their mathematical learning. Students are encouraged to take a considered approach to various mathematical activities and to explore different mathematical ideas. The exploration also allows students to work without the time constraints of a written examination and to develop the skills they need for communicating mathematical ideas.

This course is a demanding one, requiring students to study a broad range of mathematical topics through a number of different approaches and to varying degrees of depth. Students wishing to study mathematics in a less rigorous environment should therefore opt for one of the standard level courses, mathematics SL or mathematical studies SL. Students who wish to study an even more rigorous and demanding course should consider taking further mathematics HL in addition to mathematics HL.

Prior learning

Mathematics is a linear subject, and it is expected that most students embarking on a Diploma Programme (DP) mathematics course will have studied mathematics for at least 10 years. There will be a great variety of topics studied, and differing

approaches to teaching and learning. Thus students will have a wide variety of skills and knowledge when they start the mathematics HL course. Most will have some background in arithmetic, algebra, geometry, trigonometry, probability and statistics. Some will be familiar with an inquiry approach, and may have had an opportunity to complete an extended piece of work in mathematics. At the beginning of the syllabus section there is a list of topics that are considered to be prior learning for the mathematics HL course. It is recognized that this may contain topics that are unfamiliar to some students, but it is anticipated that there may be other topics in the syllabus itself that these students have already encountered.

Teachers should plan their teaching to incorporate topics mentioned that are unfamiliar to their students.

Syllabus component Teaching hours

HL

All topics are compulsory. Students must study all the sub-topics in each of the topics in the syllabus as listed in this guide. Students are also required to be familiar with the topics listed as prior learning.

Syllabus component	Teaching hours HL
All topics are compulsory. Students must study all the sub-topics in each of the topics in the syllabus as listed in this guide. Students are also required to be familiar with the topics listed as prior learning.	
Topic 1	30
Algebra	
Topic 2	22
Functions and equations	
Topic 3	22
Circular functions and trigonometry	
Topic 4	24
Vectors	
Topic 5	36
Statistics and probability	
Topic 6	48
Calculus	

Option syllabus content	
Students must study all the sub-topics in one of the following options	
as listed in the syllabus details.	
Topic 7	48
Statistics and probability	
Topic 8	
Sets, relations and groups	
Topic 9	
Calculus	
Topic 10	
Discrete mathematics	
Mathematical exploration	10
Internal assessment in mathematics HL is an individual exploration. This is a piece of written work that involves investigating an area of mathematics.	
Total teaching hours 240	
	36
Assessment component Weighting	
Assessment component	Weighting
External assessment (5 hours)	80%
Paper 1 (2 hours)	30%
No calculator allowed. (120 marks)	
<i>Section A</i>	
Compulsory short-response questions based on the core syllabus.	
<i>Section B</i>	
Compulsory extended-response questions based on the core syllabus.	
Paper 2 (2 hours)	30%

Graphic display calculator required. (120 marks)	
<i>Section A</i>	
Compulsory short-response questions based on the core syllabus.	
<i>Section B</i>	
Compulsory extended-response questions based on the core syllabus.	
	20%
Paper 3 (1 hour)	
Graphic display calculator required. (60 marks)	
Compulsory extended-response questions based mainly on the syllabus	
Options	
Internal assessment	20%
This component is internally assessed by the teacher and externally	
moderated by the IB at the end of the course.	
Mathematical exploration	
Internal assessment in mathematics HL is an individual exploration. This	
is a piece of written work that involves investigating an area of mathematics.	
(20 marks)	

External assessment details

Papers 1, 2 and 3

These papers are externally set and externally marked. Together, they contribute 80% of the final mark for the course. These papers are designed to allow students to demonstrate what they know and what they can do.

Calculators

Paper 1

Students are not permitted access to any calculator. Questions will mainly involve analytic approaches to solutions, rather than requiring the use of a GDC. The paper is not intended to require complicated calculations, with the potential for careless errors. However, questions will include some arithmetical manipulations when they are essential to the development of the question.

Papers 2 and 3

Students must have access to a GDC at all times. However, not all questions will necessarily require the use of the GDC.

Mathematics HL

External assessment

Paper 1

Duration: 2 hours

Weighting: 30%

- This paper consists of section A, short-response questions, and section B, extended-response questions.
- Students are not permitted access to any calculator for this paper.

Syllabus coverage

- Knowledge of **all** core topics is required for this paper. However, not all topics are necessarily assessed in every examination session.

Mark allocation

- This paper is worth **120** marks, representing **30%** of the final mark.
- Questions of varying levels of difficulty and length are set. Therefore, individual questions may not necessarily each be worth the same number of marks. The exact number of marks allocated to each question is indicated at the start of the question.

Section A

- This section consists of compulsory short-response questions based on the core syllabus. It is worth 60 marks.
- The intention of this section is to test students' knowledge and understanding across the breadth of the syllabus. However, it should not be assumed that the separate topics are given equal emphasis.

Section B

- This section consists of a small number of compulsory extended-response questions based on the core syllabus. It is worth 60 marks.
- individual questions may require knowledge of more than one topic.
- The intention of this section is to test students' knowledge and understanding of the core in depth. The range of syllabus topics tested in this section may be narrower than that tested in section A.

Question type

- Questions require extended responses involving sustained reasoning.
- Individual questions will develop a single theme.
- Questions may be presented in the form of words, symbols, diagrams or tables, or combinations of these.
- Normally, each question reflects an incline of difficulty, from relatively easy tasks at the start of a question to relatively difficult tasks at the end of a question. The emphasis is on problem-solving.

Paper 2

Duration: 2 hours

Weighting: 30%

- This paper consists of section A, short-response questions, and section B, extended-response questions.

- A GDC is required for this paper, but not every question will necessarily require its use.

External assessment Syllabus coverage

- Knowledge of **all** core topics is required for this paper. However, not all topics are necessarily assessed in every examination session.

Mark allocation

- This paper is worth **120** marks, representing **30%** of the final mark.
- Questions of varying levels of difficulty and length are set. Therefore, individual questions may not necessarily each be worth the same number of marks. The exact number of marks allocated to each question is indicated at the start of the question.

Section A

- This section consists of compulsory short-response questions based on the core syllabus. It is worth 60 marks.
- The intention of this section is to test students' knowledge and understanding across the breadth of the syllabus. However, it should not be assumed that the separate topics are given equal emphasis.

Question type

- A small number of steps is needed to solve each question.
- Questions may be presented in the form of words, symbols, diagrams or tables, or combinations of these.

Section B

- This section consists of a small number of compulsory extended-response questions based on the core syllabus. It is worth 60 marks.
- Individual questions may require knowledge of more than one topic.
- The intention of this section is to test students' knowledge and understanding of the core in depth. The range of syllabus topics tested in this section may be narrower than that tested in section A.

Question type

- Questions require extended responses involving sustained reasoning.
- Individual questions will develop a single theme.
- Questions may be presented in the form of words, symbols, diagrams or tables, or combinations of these.
- Normally, each question reflects an incline of difficulty, from relatively easy tasks at the start of a question to relatively difficult tasks at the end of a question. The emphasis is on problem-solving.

Paper 3

Duration: 1 hour

Weighting: 20%

- This paper consists of a small number of compulsory extended-response questions based on the option chosen.
- Where possible, the first part of each question will be on core material leading to the option topic. When this is not readily achievable, as, for example, with the discrete mathematics option, the level of difficulty of the earlier part of a question will be comparable to that of the core questions.

Syllabus coverage

- Students must answer **all** questions.
- Knowledge of the entire content of the option studied, as well as the core material, is required for this paper.

Mathematics HL

External assessment

Mark allocation

- This paper is worth **60** marks, representing **20%** of the final mark.
- Questions may be unequal in terms of length and level of difficulty. Therefore, individual questions may not be worth the same number of marks. The exact number of marks allocated to each question is indicated at the start of each question.

Question type

- Questions require extended responses involving sustained reasoning.
- Individual questions will develop a single theme or be divided into unconnected parts. Where the latter occur, the unconnected parts will be clearly labelled as such.
- Questions may be presented in the form of words, symbols, diagrams or tables, or combinations of these.
- Normally, each question reflects an incline of difficulty, from relatively easy tasks at the start of a question to relatively difficult tasks at the end of a question. The emphasis is on problem-solving.

Group-6 Arts

Subject: Visual Arts HL/SL

Recommended Background Knowledge

One of the fundamental aims of the Visual Arts Diploma course is to encourage students to become independent, self-motivated, imaginative and creative artists. Artists, who are critically aware of their own personal development, plus that of other practitioners, both past and present, in addition to the context in which artwork is created.

Some background in Art & Design, awareness of the Creative Cycle and experience of handling arts media is obviously an advantage. In some circumstances however, the course is also accessible to students with little previous formal background in Art but with considerable enthusiasm and creative potential. In such cases, the student concerned should speak to the Art teacher, bringing with them any evidence of a keen interest in Visual Arts. Above all, students wishing to undertake this course should be: self-motivated, enthusiastic, hardworking, dedicated and passionate about art.

Course Description

Visual Arts is available at both Higher and Standard Levels as a Studio-based program (Option A) or a Workbook-based program (Option B).

Option A provides more time for students to produce art works; option B gives students more time for investigation and research

Course Outline

Students are encouraged to develop as independent artists, demonstrating growth and commitment and following the Creative Cycle. They research, explore and develop their ideas for Studio Work within their Investigation Workbooks.

The Investigation Workbook

1. Critical Analysis – must show a methodical, critical examination of the meaning and significance of both the visual and functional qualities of art related to the theme under consideration.
2. Contextual Research – workbooks contain compelling evidence of thorough and consistent research into socio-cultural and historical contexts of more than one culture, including some unconventional approaches by the candidate.
3. Visual Research – workbooks illustrate a comprehensive exploration of the range of visual qualities and the representation of ideas related to themes, demonstrated through various types of original and recycled images, media experiments, and technical practice.
4. Integration – The work exhibits a natural, close and consistent relationship between research, both visual and written, and artistic production reflecting analysis, synthesis and exploration.

The Studio Work

1. Imaginative Expression – The candidate's explorations are creative and imaginative. Ideas and forms are consistently and intelligently presented in an adventurous manner, resulting in surprising and unusual images which challenge existing conventions.
2. Purposeful Exploration – There is evidence that the candidate's explorations of ideas are clearly and strongly integrated with his/her life and cultural context.
3. Meaning and Function – The studio work exhibits a synthesis of conceptual content, formal knowledge, and technical skill. It has strong personal socio-cultural or aesthetic meaning. The relationship between form, function, and meaning is very clear and appropriate.
4. Formal Qualities – The studio work consistently shows strong evidence of a thoughtful and inventive use of the elements and principles of design.
5. Technical Skills – The studio work shows an outstanding technical competence, and demonstrates a highly appropriate use of media in relation to the intended expressive purposes of the work.

What are the main aims of this subject? (Adapted from IB Subject Guide)

Visual Arts aims to develop an understanding and appreciation of Visual Art from its earliest beginnings spanning pre-historic cultures through to present day conceptual forms. The course also encourages students to produce and critically evaluate visual art from local, national and international perspectives. The Visual Arts course also allows a significant degree of experimentation with different materials and techniques.

Why students may consider this subject?

Students interested in studying visual arts in higher education, visual literacy, and how the creative arts impact history and the human condition will find this course useful. Students having an interest in open-ended experiments with traditional, digital, and unconventional materials applied to personal themes and topics will find the course stimulating. No previous art background is necessary, however, serious

time management and perseverance is essential. There is a lot of self-guided research, planning and production.

What is the difference between Higher Level (HL) and Standard Level (SL) in this subject?

The assessment for HL and SL is very similar. In some ways the main difference is in the number of art pieces that need to be completed. However, the work of HL students is meant to demonstrate greater depth than that of SL.

Main Course Objectives: (adapted from IB Subject Guide)

Having completed the course students will be expected to:

- Critically analyze historic to contemporary art forms for their function and meaning using subject specialist vocabulary.
- Practice independent creative strategies and make connections between them and the work of others.
- Explore ideas and techniques of studio processes contextually, and from Observation
- Maintain a relationship between investigative research and studio work
- Create personally relevant work

Assessment Information:

The course content and assessment objectives are the same for HL and SL, but HL students are expected to produce a larger body of work of greater depth. The assessment criteria are therefore differentiated according to option and level.

Formative assessment is conducted in bi-weekly Investigation Workbook reviews with written feedback, as individual consultations on specific projects, and through group/peer critique. Summative assessments are administered applying the IB Diploma criteria for Visual Arts.

The Internal Assessment is based on an investigative workbook, while the External Examination consists of a public exhibition of thematic studio work, an artists' statement and an interview with an external examiner.

The final assessment is based on each student's exhibition of their studio work, their research workbook and an interview with an external examiner.

Option A - HL and SL

Studio Work	60%
Investigation Workbook	40%

Option B-

HL and SL

Studio Work	40%
Investigation Workbook	60%

No external exams are conducted in this group Visual arts Grade descriptors (HL, SLA, SLB)

Grade 7 Excellent performance

Demonstrates in a highly consistent manner: excellent growth and a strong relationship between research and artistic production; thorough command of topics/concepts; highly developed understanding of sociocultural and historical perspectives in more than one cultural context; excellent critical analysis; excellent exploration of ideas, and meaningful and creative studio works (HL/SLA); excellent technical ability and effective setting and solving of artistic problems.

Grade 6 Very good performance

Demonstrates in a very consistent manner: very good growth and a sound relationship between research and artistic production; thorough understanding of most topics/concepts; understanding of sociocultural and historical perspectives in more than one cultural context; very good critical analysis; very good exploration of ideas, and meaningful and creative studio works (HL/SLA); very good technical ability and setting and solving of artistic problems.

Grade 5 Good performance

Demonstrates in a consistent manner: good growth and a good relationship between research and artistic production; generally sound understanding of most topics/concepts; understanding of socio-cultural and historical perspectives in more than one cultural context; good critical analysis; good exploration of ideas, and mostly meaningful and creative studio works (HL/SLA); good technical ability and setting and solving of artistic problems.

Grade 4 Satisfactory performance

Demonstrates in a fairly consistent manner: satisfactory growth and an adequate relationship between research and artistic production; satisfactory understanding of most topics/concepts; adequate understanding of sociocultural and historical perspectives in more than one cultural context; satisfactory critical analysis; satisfactory exploration of ideas, and some meaningful studio works (HL/SLA); satisfactory technical ability and solving of basic and routine formal and technical problems.

Grade 3 Mediocre performance

Demonstrates: mediocre growth and a partial relationship between research and artistic production; mediocre understanding of some topics/concepts; partial understanding of sociocultural and historical perspectives in more than one cultural context; limited critical analysis; some mediocre exploration of ideas, and the limited development of a few meaningful studio works (HL/SLA); mediocre technical ability and solving of some basic and routine formal and technical problems.

Grade 2 Poor performance

Demonstrates: poor growth and a limited relationship between research and artistic production; weak understanding of topics/concepts; poor understanding of sociocultural and historical perspectives in one or sometimes more cultural contexts; little capacity for critical analysis; poor exploration of ideas and the limited development of studio works (HL/SLA); poor technical ability and solving of a few basic or routine formal and technical problems.

Grade 1 Very poor performance

Demonstrates: very poor growth and a very limited relationship, if any, between research and artistic production; very weak understanding of topics/concepts; very poor understanding of socio cultural and historical perspectives in one or sometimes more cultural contexts; very little capacity for critical analysis, if any; very poor exploration of ideas in studio works (HL/SLA); very poor technical ability and very occasional solving of basic or routine formal and technical problems.

Core subject- Theory of knowledge

Course Description

The Theory of Knowledge (TOK) requirement is central to the educational philosophy of the Diploma Programme. It offers students and their teachers the opportunity to reflect critically on diverse ways of knowing and on areas of knowledge, and to consider the role and nature of knowledge in their own culture, in the cultures of others and in the wider world. It prompts students' awareness of themselves as thinkers, encouraging them to become more acquainted with the complexity of knowledge and to recognize the need to act responsibly in an increasingly interconnected but uncertain world.

As a thoughtful and purposeful inquiry into different ways of knowing, and into different kinds of knowledge, TOK is composed almost entirely of questions. The most central of these questions is

“How do we know?” The critical reflection encouraged in students is a foundation for developing international awareness.

All Diploma Programme subjects aim to encourage in all students an appreciation and understanding of cultures and attitudes other than their own, but in this particular respect, TOK has a special role to play. It is a stated aim of TOK that students should become aware of the interpretative nature of knowledge, including personal and ideological biases, regardless of whether, ultimately, these biases are retained, revised or rejected.

Course Outline

Theory of Knowledge involves about 100 hours of contact time and is organized in four broad categories:

1. Knowledge Issues - Knowers and Knowing;
2. Ways of Knowing;
3. Areas of Knowledge;
4. Linking Questions.

Assessment :

TOK Essay:-67%

- The student has to write one essay on a title chosen from a list of six titles prescribed by the IB for each examination session.
- The maximum length for the essay is 1,600 words.
- All essays are externally assessed by the IB.

TOK Presentation:-33%

- Each student/ group of students will give one presentation to the class.
- The presentation will be of approximately 10 minutes per student.
- One written presentation planning document for each student.

TOK standards of assessment

- Excellent – **A**
- Good – **B**
- Satisfactory – **C**
- Mediocre – **D**
- Elementary – **E**

- Not submitted - N

In the second year (Grade 12) of the course students are officially assessed for their IB Diploma, based solely on two pieces of work:

1. **The TOK Essay on a prescribed title** – 10 marks (max 1600 words). This is on a title chosen from a list of ten titles prescribed by the IBO for each examination session. It is supervised by a teacher in the school, and then graded externally by an IB examiner.
2. **The TOK Group Presentation** -Internally assessed (10 marks) (approx. 10 minutes per student max 3 students in a group). This is supervised and assessed by a teacher in the school. It is accompanied by a written presentation planning document.
The final grade is then sent to the IB.

The final TOK grade and the final Extended Essay grade are entered into the Diploma Points Matrix (see below) to award a possible maximum of 3 extra points to be added to a student's Diploma score. Candidates not submitting satisfactory work in either area will fail the Diploma.

Extended Essay

Course Description:

A required component of the full Diploma Programme, the Extended Essay is an independent, self-directed piece of research, culminating in a 4,000-word paper. It is given much importance by students, teachers and universities, because it provides practical preparation for the kind of under-graduate research required at tertiary level. From the choice of a suitable research question, to the final completion of the extended essay, students must produce their piece within the constraints of time, essay length and available resources. This component provides an opportunity to engage in an in-depth study of a topic of interest within a chosen subject.

Emphasis is placed on the research process, on the appropriate formulation of a research question, on personal engagement in the exploration of the topic, and on communication of ideas and development of argument. It develops the capacity to analyse, synthesize and evaluate knowledge, with a personal choice of topic from within any subject area. Students are supported and encouraged throughout the research and writing with advice and guidance from a supervisor.

Course Outline

The Extended Essay, which introduces the student to personal research, is based on a topic of student's choice, chosen from one of the six groups of subjects. Each student discusses an appropriate subject and topic with a teacher supervisor, who advises and guides the student during the researching and writing of the essay. This is an excellent preparation for similar tasks given to students once they enter university.

Extended essays should be completed by the beginning of the second term of Grade 12 and are externally assessed.

Course Description:

Assessment

The Essay - Written Research Paper External—IBO examiner 100%

- The Extended Essay has an upper word limit of 4000 words.
- The Extended Essay is externally assessed by an examiner appointed by IBCA and can earn, together with the Theory of Knowledge result, up to three bonus points.

According to the quality of work, the student's performance in Theory of Knowledge and the Extended Essay falls into one of the following five bands;

- A. Work of an **excellent** standard
- B. Work of a **good** standard
- C. Work of a **satisfactory** standard
- D. Work of a **mediocre** standard
- E. Now a failing condition as from May, 2010

NOTE: The award of N, that is, failure to submit an extended essay excludes a student from the award of the Diploma. Performance of an elementary standard for both the Extended Essay and Theory of Knowledge is a failing condition for award of the Diploma.

Creativity, Activity, Services

Course Description:

The emphasis of CAS is on experiential learning and students are expected to be actively involved in activities for at least three semesters.

Creativity is activity outside the normal curriculum which includes creative thinking; this includes doing dance, theatre, music, singing and the arts. Students are engaged in group activities and new roles. An individual commitment to learning an art form is allowed. Goals are set and there is reflection.

Activity is an activity outside the normal curriculum which requires physical exertion (pulses up), this includes doing individual and team sports, participation in expeditions and physical activity involved in carrying out creative and service projects. Students are engaged in group activities and new roles. Goals are set and there is reflection.

Service is activity involving interaction with individuals and groups in the community who require support. Students are engaged in doing things for and with others and developing a real commitment with them. There is a relationship that shows respect. Goals are set and there is reflection.

Course Outline:

To successfully complete CAS students are expected to identify suitable activities and activity supervisors, write proposals outlining what they will do, list goals describing what they hope to achieve, make a commitment to regular active involvement, keep a diary documenting this involvement and reflect on their learning. The student's CAS Journal is intended as a record for the student, to

assist them in monitoring their activity involvement.

The CAS Coordinator monitors the CAS Journal ensuring students maintain a balanced program. Journals provide an important reference record for the writing of testimonials and university references, and form the basis of the final evaluation. The IBO may request to inspect CAS documentation at the end of the program.

The CAS programme is a core requirement for the IB Diploma requirement for all D1 and D2 students. Both the IB Organization and AIS feel strongly that through this programme students can learn more about themselves and their own potential and about their relationship and responsibility towards the society around them.

The CAS programme offers the opportunity for students to put themselves in new situations. If a student chooses to teach English or craft to primary school children, or to work in a community-building group, or to grasp the principles of chess, they will learn more than that activity alone. They learn from their reactions to it, to people and needs they have not met before and students often create their own initiatives and ideas in response to a project.

All D1 and D2 students are expected to follow a balanced programme including at least one activity involving service to the community outside the school, one creative activity as well as one hour of sport every week. Some activities are considered as essentially creative, others (e.g. working with street children) are seen as a service. Most activities require action and many combine all three CAS elements (e.g. designing and teaching a swimming programme for 5 year olds).

Students must keep regular records of activities undertaken, and write a short evaluation at the end of each project that highlights their progress towards meeting the **seven CAS learning out-comes**. As a result of their CAS experience as a whole, there should be evidence that students have:

- | | |
|---------------------------|---|
| Learning Outcome 1 | Identify own strengths and develop areas for growth. |
| Learning Outcome 2 | Demonstrate that challenges have been undertaken, developing new skills in the process. |
| Learning Outcome 3 | Demonstrate how to initiate and plan a CAS experience. |
| Learning Outcome 4 | Show commitment to and perseverance in CAS experience. |

Learning Outcome 5	Demonstrate the skills and recognize the benefits of working collaboratively.
Learning Outcome 6	Demonstrate engagement with issues of global significance.
Learning Outcome 7	Recognize and consider the ethics of choices and actions.

Assessment

Achievement against CAS Learning Outcomes
Internal—CAS/DP Coordinator 100%

CAS Expectations are for a student to complete the following:

- Statement of goals for the CAS program and a self-review of the strengths and weaknesses
 - 3-4 hours to CAS per week.
 - Time spent in each area weekly: creativity, activity and service
 - 18 months beginning in September and running through the summer
 - All learning outcomes
 - Reflection journal weekly
- Final self-evaluation and critical reflection on the entire CAS experience

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