MIT PUNE'S
VISHWASHANTI
GURUKUL
SINCE 2006
AN IB WORLD SCHOOL

MIT PUNE'S VISHWASHANTI GURUKUL IBDP Handbook

Academic Year: 2018-2020

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IB MISSION STATEMENT

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

MISSION OF VISHWASHANTI GURUKUL

Vishwashanti Gurukul's mission is to provide a resource based education with global opportunities for academic growth and development, and assure that all students are provided the necessary life skills and competencies to function productively in an ever changing society while retaining Indian values and Philosophy.

VISION OF VISHWASHANTI GURUKUL

To make 'Vishwashanti Gurukul' a learning community of motivated students with the staff engaged in realizing the children's full human potential and imparting world class education to each student which fosters academic excellence, physical fitness, psychological and spiritual health and social consciousness.‖

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.

The IB Diploma Programme Model:

The IB Diploma Programme is a challenging two-year pre-university curriculum, primarily aimed at students aged 16 to 19. It leads to a qualification (the IB diploma) that is widely recognized by the world's leading universities.

The curriculum contains six subject groups together with the DP core: creativity, activity, service (CAS); the extended essay (EE); and theory of knowledge (TOK). This is illustrated by the below Diploma Programme model.

Candidates studying for the diploma select six subjects from the subject groups. Normally three subjects are studied at higher level (courses representing 240 teaching hours), and the remaining three subjects are studied at standard level (courses representing 150 teaching hours). All three parts of the core & extended essay, theory of knowledge and creativity, activity, service—are compulsory and are central to the philosophy of the Diploma Programme.

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

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

Subjects Offered at Vishwashanti Gurukul:

Students must pick one subject from each of the options mentioned below:

Option 1: English A Literature HL/SL
Hindi A Literature HL/SL

Option 2: Hindi HL/SL
French HL/SL/ab initio

Option 3: Business Management HL/SL
Economics HL/SL
Psychology HL/SL
Biology HL/SL
History HL/SL

Option 4: Physics HL/SL
Biology HL/SL
Chemistry HL/SL
Computer Science HL/SL
ESS SL

Option 5: Math HL/SL/SL Studies

Option 6: Visual Arts HL/SL
Business Management HL/SL
Computer Science HL/SL
Chemistry HL/SL
Geography HL/SL

Making the Right Subject Choice:

Students must make the choice of their subjects judiciously after considering several factors. They must consider their strengths and interest in the subjects. They must also keep in mind the entry requirements for the course in the University they wish to apply. It must be kept in mind that different universities in different countries have different entry requirements. It is vital that students make the subject choice after a lot of thought and discussion. The students are guided in their subject choice by the University Placement Counselor and the DP Coordinator. Parents are encouraged to discuss the same with their wards and school. Information regarding University entry requirements in India and abroad will be available with the University Placement Counselor.

Students are not permitted to switch subject levels or revise their subject choices beyond the month of August. Students must hence make the choice of their subjects after extensive research and in consultation with their parents, teachers, University Placement Counselor and the DP Coordinator. Decisions made at this stage will have an impact on their prospects of higher education.

Assessment and Grading:

The school's assessment procedure aligns with the requirements of the programme and is criterion referenced. The school Assessment Policy found on Managebac contains detailed information regarding the same.

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

In all the subjects at least some of the assessment is carried out internally by teachers, who mark individual pieces of work produced as part of a course of study. Examples include oral exercises in language subjects, projects, student portfolios, reports, class presentations, practical laboratory work, mathematical investigations and artistic performances.

Some assessment tasks are conducted and overseen by teachers, but are then marked externally by examiners. Examples include written assignments or tasks for language subjects in groups 1 and 2, the essay for theory of knowledge and the extended essay.

The grading system is criterion-related (results are determined by performance against set standards, and not in relation to the performance of other students); validity, reliability and fairness are principles of the Diploma Programme's assessment strategy.

Students are awarded grades on scale of 1 to 7, 1 being the lowest grade and 7 the highest.

Understanding the IBDP Grades in the Indian Context:

The International Baccalaureate Diploma has been recognized by the Association of Indian Universities as an entry qualification to all universities in India. Below is the suggested percentage for the IB Grades. Students who wish to apply to Indian universities will receive an Indian transcript containing the equivalent percentages.

IB Grade to Mark Scheme

IB Grade	Indian Equivalent Marks	
	From	To
7	96	100
6	83	95
5	70	82
4	56	69
3	41	55
2	21	40
1	1	20

Core requirements of the diploma:

In addition to completing the assessment requirements of six subjects, in order to be eligible for the award of the diploma a candidate must also meet the requirement of theory of knowledge, the extended essay and creativity, activity, service (CAS).

A course candidate can now register for one, two or all three core elements.

Theory of knowledge

A diploma candidate must follow a theory of knowledge (TOK) course. 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 them.

There are two assessment tasks in the TOK course: an essay and a presentation. The essay is externally assessed by the IB, and must be on any one of the six prescribed titles issued by the IB for each examination session. The maximum word limit for the essay is 1,600 words.
The presentation can be done individually or in a group, with a maximum group size of three. Approximately 10 minutes per presenter should be allowed, up to a maximum of approximately 30 minutes per group. Before the presentation each student must complete and submit a presentation planning document (TK/PPD). The TK/PPD is internally assessed alongside the presentation itself, and the form is used for external moderation.

Extended essay

A diploma candidate must complete and submit an extended essay (EE), which is a substantial piece of independent research of up to 4,000 words. Work on the extended essay is expected to occupy approximately 40 hours. The work for an extended essay must be done under the direct supervision of an appropriate teacher. The supervisor is generally the subject teacher. For further details regarding the Extended Essay kindly refer to the Extended Essay Handbook. For more details kindly refer to the Extended Essay Handbook.

Creativity, activity, service

A diploma candidate must engage in creativity, activity, service (CAS) experiences. The CAS programme formally begins at the start of the Diploma Programme and continues regularly, ideally on a weekly basis, for at least 18 months with a reasonable balance between creativity, activity, and service. Students are encouraged to initiate their own CAS activities. CAS reflections are uploaded on Managebac. For more details kindly refer to the CAS Handbook

Coherence in the core:

All three elements of the core are grounded in three coherent aims:

• to support, and be supported by, the academic disciplines

• to foster international-mindedness

• to develop self-awareness and a sense of identity.

Special educational needs

The school ensures that equal access arrangements and reasonable adjustments are provided to candidates with special educational needs that are in line with the IB documents *Candidates with special assessment needs* and *Special educational needs within the International Baccalaureate programmes*. Kindly refer to the school's Special Education Needs Policy for further details.

Award of the IB Diploma and Failing Conditions

What are diploma ―requirements and ―failing conditions?
In order to achieve the IB Diploma a candidate must fulfill certain requirements; at its most basic a candidate must achieve at least 24 points from their combined grades in six subjects, together with their grades for theory of knowledge and the extended essay, and also complete the Creativity, Action, Service (CAS) element. However, to ensure a diploma reflects sufficient breadth in achievement across subjects and the core there are particular requirements stated in articles of the *General regulations: Diploma Programme*. These are the ―requirements‖ and are phrased positively. The ―failing conditions‖ are an interpretation of these requirements intended to indicate why a candidate has failed to achieve the diploma.

From the May 2015 examination session

From the May 2015 session the following failing conditions and associated codes will replace those in current use.
1. CAS requirements have not been met.

2. Candidate's total points are fewer than 24.

3. An N has been given for theory of knowledge, extended essay or for a contributing subject.

4. A grade E has been awarded for one or both of theory of knowledge and the extended essay.

5. There is a grade 1 awarded in a subject/level.

6. Grade 2 has been awarded three or more times (HL or SL).

7. Grade 3 or below has been awarded four or more times (HL or SL).

8. Candidate has gained fewer than 12 points on HL subjects (for candidates who register for four HL subjects, the three highest grades count).

9. Candidate has gained fewer than 9 points on SL subjects (candidates who register for two SL subjects must gain at least 5 points at SL).

The diploma points matrix

May 2015 onwards

		Theory of knowledge					
		Grade **A**	Grade **B**	Grade **C**	Grade **D**	Grade **E**	No grade **N**
Extended essay	Grade **A**	3	3	2	2	Failing condition	Failing condition
	Grade **B**	3	2	2	1	Failing condition	Failing condition
	Grade **C**	2	2	1	0	Failing condition	Failing condition
	Grade **D**	2	1	0	0	Failing condition	Failing condition
	Grade **E**	Failing condition	Failing condition	Failing condition	Failing condition	Failing condition	Failing condition
	No grade **N**	Failing condition	Failing condition	Failing condition	Failing condition	Failing condition	Failing condition

University Placement:

Our alumni are placed in Universities across the globe and in India. The school supports students in deciding, planning and applying for the post IBDP education. The University Placement Counsellor guides and supports students through the course of the Diploma Programme in this regard. SAT classes happen on our campus for those who are interested in the same. Guidance and support is given for admissions into universities in India as well as abroad. For more details in this regards please refer to the University Placement Handbook.

Research Methodology

We train our students to present all their work in prescribed academic norms. They are trained to follow systematic research methodologies. **The following are examples of acceptable documentation styles used in our school**

- Modern Language Association (MLA)
- American Psychological Association (APA)

Academic Honesty

The school promotes a positive atmosphere wherein students are nurtured by imbibing in them, respect for each other, fairness and straightforwardness of conduct. We believe in inculcating these values in students from the beginning of their journey at VGS. Academic honesty is considered as an essential trait of a life-long learner.

Academic honesty is part of being ―principled‖, a learner profile attribute where learners strive to ―act with integrity and honesty as we question, inquire and act. To understand academic honesty in the context of the Diploma Programme please read the Academic Honesty Policy thoroughly.

The school conducts via voce for students for all major submissions and uses Turnitin for plagiarism check.

Managebac

The school uses Managebac for most of its communications. Students upload their CAS reflections and assignments through Managebac. All the policies and other related documents are also to be found in the IBDP folder on Managebac for both students and parents. Report cards are generated through Managebac. Parents and students can view the same on the dates mentioned in the school calendar. Parents can access examination schedules. Work done statements containing the content taught to students and the assignments/home work given are compiled once in two weeks and made available on Managebac.

Parents and students are provided with individual access to Managebac at the beginning of the academic year.

Subject Briefs:

Subject: English A : Literature HL

Syllabus Outline:

Content Taught in Grade 11

Part	Texts Studied
Part 1: Works in translation (Plays)	—A Doll's House by Henrik Ibsen
	—Miss Julie by August Strindberg
	—Blood Wedding by Federico Lorca Garcia
Part 4: Options	—Animal Farm‖ by George Orwell
	—Persepolis by Marjane Satrapi
	—Selected Essays by Mark Twain
Part 3: Literary Genres (Novels)	—The Bluest Eye by Toni Morrison
Literary Commentary	—Unseen Poems and Prose Excerpts

Content Taught in Grade 12

Part	Texts Studied
Part 3: Literary Genres (Novels) Contd.	—The Handmaid's Tale by Margaret Atwood
	—Half of a Yellow Sun by Chimamanda Ngozi Adichie
	—Shalimar the Clown by Salman Rushdie
Part 2: Detailed Study	—Selected Poems by Langston Hughes and Derek Walcott
	—Pygmalion‖ by George Bernard Shaw
	—Old Man and the Sea by Ernest Hemingway
Literary Commentary	—Unseen Poems and Prose Excerpts

Skills:

In order to achieve the learning outcomes of this course, students will need a strong grasp of specific skills. An explanation of their importance is given below.

Language skills

The course provides students to develop and refine their language skills. In particular, they are expected to develop the ability to express their ideas in clear, unambiguous language, paying attention to appropriate style and register. Furthermore, they are expected to structure their ideas coherently and effectively, and to acquire vocabulary appropriate to formal expression and literary analysis.

Critical approaches

As part of developing independent literary judgment, students need to have some knowledge of the methodology involved in studying literature. Understanding critical perspectives is an inherent part of the course, and differing critical views of a given text may be highlighted in order to give students a broader understanding of the possible readings of a work.

Literary conventions

The term ―literary conventions‖, can be interpreted in the broadest sense as the characteristics of a literary genre, such as dialogue or speeches in plays, metre and rhyme in verse or foreshadowing and flashbacks in prose fiction.

Visual skills

As students become adept at the other literacy skills of reading, writing, listening and speaking, it is essential that they develop skills in understanding and interpreting the visual images used in conjunction with these skills.

Assessment Outline:

Assessment Component	**Weighting**
External assessment (4 hours)	**70%**
Paper 1: Literary commentary (2 hours) **The paper consists of two passages: one prose and one poetry.** **Students choose one and write a literary commentary. (20 marks)**	**20%**
Paper 2: Essay (2 hours) **The paper consists of three questions for each literary genre.** **In response to one question students write an essay based on at least two**	

works studied in part 3. (25 marks) Written assignment **Students submit a reflective statement and literary essay on one work studied in part 1. (25 marks)** **The reflective statement must be 300–400 words in length.** **The essay must be 1,200–1,500 words in length.**	**25%** **25%**
Internal assessment **This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.** Individual oral commentary and discussion (20 minutes) **Formal oral commentary on poetry studied in part 2 with subsequent questions (10 minutes) followed by a discussion based on one of the other part 2 works (10 minutes). (30 marks)** Individual oral presentation (10–15 minutes) **The presentation is based on works studied in part 4. It is internally assessed and externally moderated through the part 2 internal assessment task. (30 marks)**	**30%** **15%** **15%**

External Assessment

Component	Part of Syllabus	Assessment Criteria	Marks	Total Marks
Paper 1	Literary Commentary	A: Understanding and interpretation	5 Marks	20 Marks
		B: Appreciation of the writer's choices	5 Marks	
		C: Organization and development	5 Marks	
		D: Language	5 Marks	
Paper 2	Part 3: Literary Genres	A: Knowledge and understanding	5 Marks	25 Marks
		B: Response to the question	5 Marks	
		C: Appreciation of the literary conventions of the genre	5 Marks	
		D: Organization and development	5 Marks	
		E: Language	5 Marks	
Written Assignment	Part 1: Literature in Translation	A: Fulfilling the requirements of the reflective statement	3 Marks	25 marks
		B: Knowledge and understanding	6 Marks	
		C: Appreciation of the writer's choices	6 Marks	
		D: Organization and development	5 Marks	
		E: Language	5 Marks	

Internal Assessment

Component	Part of Syllabus	Assessment Criteria	Marks	Total Marks
Individual Oral Commentary and Discussion	Part 2: Detailed Study	A: Knowledge and understanding of the poem	5 Marks	30 Marks
		B: Appreciation of the writer's choices	5 Marks	
		C: Organization and presentation of the commentary	5 Marks	
		D: Knowledge and understanding of the work used in the discussion	5 Marks	
		E: Response to the discussion questions	5 Marks	
		F: Language	5 Marks	
Individual Oral Presentation	Part 4: Options	A: Knowledge and understanding of the work(s)	10 Marks	30 Marks
		B: Presentation	10 Marks	
		C: Language	10 Marks	

May 2015 Grade Boundaries

Subject: **ENGLISH A LIT** Lvl: **HL** Subject Option: **ENGLISH A: Literature** Timezone: **2**

INTERNAL ASSESSMENT (ORAL)			PAPER ONE			PAPER TWO			WRITTEN ASSIGNMENT			FINAL		
Grade	From	To	Grade	From	To	Grade	From	To	Grade	From	To	Grade	From	To
1	0	5	1	0	3	1	0	3	1	0	4	1	0	15
2	6	10	2	4	6	2	4	6	2	5	9	2	16	31
3	11	13	3	7	8	3	7	9	3	10	12	3	32	42
4	14	17	4	9	11	4	10	12	4	13	15	4	43	55
5	18	21	5	12	13	5	13	16	5	16	18	5	56	68
6	22	25	6	14	16	6	17	19	6	19	20	6	69	80
7	26	30	7	17	20	7	20	25	7	21	25	7	81	100

Subject: English A : Literature SL

Syllabus Outline:

Content Taught in Grade 11

Part	Texts Studied
Part 1: Works in translation (Plays)	—A Doll's House by Henrik Ibsen
	—Blood Wedding by Federico Lorca Garcia
Part 4: Options	—Animal Farm by George Orwell
	—Persepolis by Marjane Satrapi
	—Selected Essays by Mark Twain
Part 3: Literary Genres (Novels)	—The Bluest Eye by Toni Morrison
Literary Commentary	—Unseen Poems and Prose Excerpts

Content Taught in Grade 12

Part	Texts Studied
Part 3: Literary Genres (Novels) Contd.	—The Handmaid's Tale by Margaret Atwood
	—Half of a Yellow Sun by Chimamanda Ngozi Adichie
Part 2: Detailed Study	Selected Poems by Langston Hughes and Derek Walcott
	—Pygmalion‖ by George Bernard Shaw
Literary Commentary	Unseen Poems and Prose Excerpts

Skills:

In order to achieve the learning outcomes of this course, students will need a strong grasp of specific skills. An explanation of their importance is given below.

Language skills

The course provides students to develop and refine their language skills. In particular, they are expected to develop the ability to express their ideas in clear, unambiguous language, paying attention to appropriate style and register. Furthermore, they are expected to structure their ideas coherently and effectively, and to acquire vocabulary appropriate to formal expression and literary analysis.

Critical approaches

As part of developing independent literary judgment, students need to have some knowledge of the methodology involved in studying literature. Understanding critical perspectives is an inherent part of the course, and differing critical views of a given text may be highlighted in order to give students a broader understanding of the possible readings of a work.

Literary conventions

The term —literary conventions‖, can be interpreted in the broadest sense as the characteristics of a literary genre, such as dialogue or speeches in plays, metre and rhyme in verse or foreshadowing and flashbacks in prose fiction.

Visual skills

As students become adept at the other literacy skills of reading, writing, listening

and speaking, it is essential that they develop skills in understanding and interpreting the visual images used in conjunction with these skills.

Assessment Outline:

Assessment Component	**Weighting**
External assessment (3 hours)	**70%**
Paper 1: Guided literary analysis (1 hour 30 minutes) **The paper consists of two passages: one prose and one poetry.** **Students choose one and write a guided literary analysis in response to two questions. (20 marks)**	**20%**
Paper 2: Essay (1 hour 30 minutes) **The paper consists of three questions for each literary genre.** **In response to one question students write an essay based on at least two works studied in part 3. (25 marks)**	**25%**
Written assignment **Students submit a reflective statement and literary essay on one work studied in part 1. (25 marks)** **The reflective statement must be 300–400 words in length.** **The essay must be 1,200–1,500 words in length.**	**25%**
Internal assessment **This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.**	**30%**
Individual oral commentary (10 minutes) **Students present a formal oral commentary and answer subsequent questions on an extract from a work studied in part 2. (30 marks)**	**15%**
Individual oral presentation (10–15 minutes) **The presentation is based on works studied in part 4. It is internally assessed and externally moderated through the part 2 internal assessment task. (30 marks)**	**15%**

External Assessment

Component	Part of Syllabus	Assessment Criteria	Marks	Total Marks
Paper 1	Literary Commentary	A: Understanding and interpretation	5 Marks	20 Marks
		B: Appreciation of the writer's choices	5 Marks	
		C: Organization and development	5 Marks	
		D: Language	5 Marks	
Paper 2	Part 3: Literary Genres	A: Knowledge and understanding	5 Marks	25 Marks
		B: Response to the question	5 Marks	
		C: Appreciation of the literary conventions of the genre	5 Marks	
		D: Organization and development	5 Marks	
		E: Language	5 Marks	
Written Assignment	Part 1: Literature in Translation	A: Fulfilling the requirements of the reflective statement	3 Marks	25 marks
		B: Knowledge and understanding	6 Marks	
		C: Appreciation of the writer's choices	6 Marks	
		D: Organization and development	5 Marks	
		E: Language	5 Marks	

Internal Assessment

Component	Part of Syllabus	Assessment Criteria	Marks	Total Marks
Individual Oral Commentary and Discussion	Part 2: Detailed Study	A: Knowledge and understanding of the extract	10 Marks	30 Marks
		B: Appreciation of the writer's choices	10 Marks	
		C: Organization and presentation	5 Marks	
		F: Language	5 Marks	
Individual Oral Presentation	Part 4: Options	A: Knowledge and understanding of the work(s)	10 Marks	30 Marks
		B: Presentation	10 Marks	
		C: Language	10 Marks	

May 2015 Grade Boundaries

Subject: **ENGLISH A LIT** Lvl: **SL** Subject Option: **ENGLISH A: Literature** Timezone: **1**

INTERNAL ASSESSMENT (ORAL)			PAPER ONE			PAPER TWO			WRITTEN ASSIGNMENT			FINAL		
Grade	From	To	Grade	From	To	Grade	From	To	Grade	From	To	Grade	From	To
1	0	4	1	0	2	1	0	4	1	0	6	1	0	16
2	5	8	2	3	5	2	5	8	2	7	9	2	17	30
3	9	12	3	6	9	3	9	10	3	10	12	3	31	43
4	13	16	4	10	11	4	11	13	4	13	15	4	44	55
5	17	19	5	12	14	5	14	17	5	16	18	5	56	68
6	20	23	6	15	16	6	18	20	6	19	20	6	69	79
7	24	30	7	17	20	7	21	25	7	21	25	7	80	100

Glossary of Command Terms for HL and SL

Students should be familiar with the following key terms and phrases used in examination questions, which are to be understood as described below

Analyse - Break down in order to bring out the essential elements or structure.

Comment - Give a judgment based on a given statement or result of a calculation.

Compare - Give an account of the similarities between two (or more) items or situations, referring to both (all) of them throughout.

Compare and contrast - Give an account of similarities and differences between two (or more) items or situations, referring to both (all) of them throughout.

Contrast - Give an account of the differences between two (or more) items or situations, referring to both (all) of them throughout.

Describe - Give a detailed account.

Discuss - Offer a considered and balanced review that includes a range of arguments, factors or hypotheses. Opinions or conclusions should be presented clearly and supported by appropriate evidence.

Evaluate - Make an appraisal by weighing up the strengths and limitations.

Examine - Consider an argument or concept in a way that uncovers the assumptions and interrelationships of the issue.

Explain - Give a detailed account including reasons or causes.

Explore - Undertake a systematic process of discovery.

Interpret - Use knowledge and understanding to recognize trends and draw conclusions from given information.

Investigate - Observe, study, or make a detailed and systematic examination, in order to establish facts and reach new conclusions.

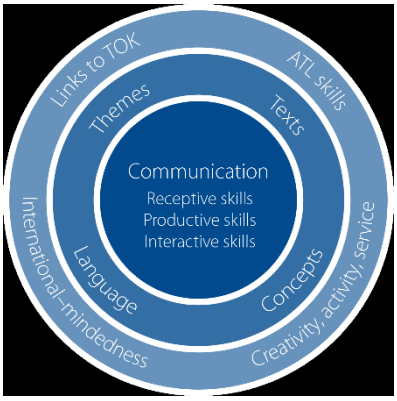
Justify - Give valid reasons or evidence to support an answer or conclusion.

To what extent - Consider the merits or otherwise of an argument or concept. Opinions and conclusions should be presented clearly and supported with appropriate evidence and sound argument.

Group 2 Language Acquisition SL and HL*

Subject: Hindi and French

Syllabus Outline:



Prescribed themes:
- identities
- experiences
- human ingenuity
- social organization
- sharing the planet

Recommended Topics

• Lifestyles • Health and wellbeing • Beliefs and values • Subcultures • Language and identity • Leisure activities • Holidays and travel • Life stories • Rites of passage • Customs and traditions • Migration	• Entertainment • Artistic expressions • Communication and media • Technology • Scientific innovation • Social relationships • Community • Social engagement • Education • The working world	• Law and order • The environment • Human rights • Peace and conflict • Equality • Globalization • Ethics • Urban and rural environment

Prescribed Text Types

Personal Texts	Professional Text	Mass media Texts
Blog Diary Email Personal letter Social media posting/chat room	Blog Email Essay Formalletter Proposal Questionnaire Report Set of instructions Survey	Advertisement Article (newspaper, magazine) Blog Brochure Film Interview Leaflet Literature* News report Opinion column/editorial Pamphlet Podcast Poster Public commentary (editorial/ readers' letters) Radio programme Review Speech Travel guide Web page

*For HL only: Study of at least two **literary texts** (originally written in the target language) to be usedas the stimulus for the individual oral assessment.

Concepts:
Audience, Context, Purpose, Meaning, Variation

Assessment Outline SL

Assessment component	Weighting
External assessment (3 hours)	75%
Paper 1 (1 hour 30 minutes) **Productive skills—writing (30 marks)** One writing task of 250–400 words from a choice of three, each from a different theme, choosing a text type from among those listed in the examination instructions.	25%
Paper 2 (1 hour 45 minutes) **Receptive skills—separate sections for listening and reading (65 marks)** Listening comprehension (45 minutes) (25 marks) Reading comprehension (1 hour) (40 marks) Comprehension exercises on three audio passages and three written texts, drawn from all five themes.	50%
Internal assessment This component is internally assessed by the teacher and externally moderated by the IB at the end of the course. **Individual oral assessment** A conversation with the teacher, based on a visual stimulus, followed by discussion based on an additional theme. (30 marks)	25%

Assessment Outline HL

Assessment component	Weighting
External assessment (3 hours)	75%
Paper 1 (1 hour 30 minutes) **Productive skills—writing (30 marks)** One writing task of 250–400 words from a choice of three, each from a different theme, choosing a text type from among those listed in the examination instructions.	25%
Paper 2 (1 hour 45 minutes) **Receptive skills—separate sections for listening and reading (65 marks)** Listening comprehension (45 minutes) (25 marks) Reading comprehension (1 hour) (40 marks) Comprehension exercises on three audio passages and three written texts, drawn from all five themes.	50%
Internal assessment This component is internally assessed by the teacher and externally moderated by the IB at the end of the course. **Individual oral assessment** A conversation with the teacher, based on an extract from one of the literary works* studied in class, followed by discussion based on one or more of the themes from the syllabus. (30 marks)	25%

Assessment Criteria Overview

External assessment criteria—SL

Paper 1: Productive skills—writing

Assessment criteria are used to mark paper 1, which is worth 25% of the overall mark. There are threeassessment criteria.

Paper 1

Criterion A	**Language**	**12 marks**
Criterion B	Message	12 marks
Criterion C	**Conceptual understanding**	06 marks
	Total	**30 marks**

Paper 2

For paper 2, there are mark schemes.

Internal assessment criteria

Productive and interactive skills: Individual oral assessment

Criterion A	**Language**	**12 marks**
Criterion B 1	Message: Visual Stimulus	06 marks
Criterion B 2	Message: Conversation	06 marks
Criterion C	**Interactive skills—communication**	06 marks
	Total	**30 marks**

Subject: French ab initio SL

Syllabus outline

Prescribed themes:	**Prescribed Topics**
• identities	• Personalattributes • Personalrelationships • Eating anddrinking • Physical wellbeing
• experiences	• Daily routine • Leisure • Holidays • Festivals and Celebrations
• human ingenuity	• Transport • Entertainment • Media • Technology
• social organization	• Neighbourhood • Education • The workplace • Social issues
• sharing the planet	• Climate • Physical geography • The environment • Global issues

Text Types

Personal Texts	**Professional Text**	**Mass media Texts**
Blog	Blog	Advertisement
Diary	Brochure	Article (newspaper, magazine)
Email	Catalogue	Blog
Invitation	Email	Brochure
Journal	Essay	Film
List	Formalletter	Flyer

Personal letter Postcard Social media posting/chat room Text message Timetable	Interview Invitation Literature (short-story, novel, poem, graphic novel) Maps/diagrams Menu Online forum Personal statement/CV Proposal Questionnaire Recipe Report Set of instructions/guidelines Supporting letter Survey Timetable	Interview Leaflet Literature News report Newsletter Opinion column/editorial Pamphlet Podcast Poster Public commentary (editorial/ readers' letters) Radio programme Review Social media posting Speech Travel guide TV/drama/music Web page

Concepts:

Audience, Context, Purpose, Meaning, Variation

Assessment Outline:

Assessment Component	Weighting
External assessment(2 hours 45 minutes)	75%
Paper 1 (1 hour) Productive skills—**writing** (30 marks) Two written tasks of 70–150 words each from a choice of three tasks, choosing a text type for each task from among those listed in the examination instructions.	25%
Paper 2 (1 hour 45 minutes) Receptive skills—separate sections for listening and reading (65 marks) **Listeningcomprehension** (45 minutes) (25 marks) **Readingcomprehension** (1 hour) (40 marks) Comprehension exercises on three audio passages and three written texts, drawn from all five themes.	50%
Internal assessment This component is internally assessed by the teacher and externally moderated by the IB at the end of the course. **Individual oral assessment** A conversation with the teacher, based on a visual stimulus and at least one additional course theme. (30 marks)	25%

Assessment Criteria Overview:

External assessment criteria

Paper 1

Assessment criteria are used to mark paper 1, which is worth 25% of the overall mark. There are three assessment criteria.

Text A and Text B

Criterion A	Language	06 marks
Criterion B	Message	06 marks
Criterion C	Conceptual Understanding	03 mark
	Total	15 marks

Paper 2

Markschemes are used to assess paper 2.

Internal Assessment
Individual oral

Criterion A	**Language**	**12 marks**
Criterion B 1	Message: Visual Stimulus	06 marks
Criterion B 2	Message: Conversation	06 marks
Criterion C	**Interactive skills—communication**	06 marks
	Total	**30 marks**

Subject: Business Management: HL

Syllabus Outline:

Content Taught in Grade 11

Units	Texts Studied
Unit-I : Business organization and environment	Business Management by Paul Hoang 3rd Edition
1.1 Introduction to business management **1.2 Types of organizations** **1.3 Organizational objectives** **1.4 Stakeholders** **1.5 External environment** **1.6 Growth and evolution** **1.7 Organizational planning tools (HL only)**	
Unit -II : Human resource management	Business Management by Paul Hoang 3rd Edition
2.1 Functions and evolution of human resource management **2.2 Organizational structure** **2.3 Leadership and management** **2.4 Motivation** **2.5 Organizational (corporate) culture (HL only)** **2.6 Industrial/employee relations (HL only)**	
Unit -III: Finance and accounts	Business Management by Paul Hoang 3rd Edition
3.1 Sources of finance **3.2 Costs and revenues** **3.3 Break-even analysis** **3.4 Final accounts (some HL only)** **3.5 Profitability and liquidity ratio analysis** **3.6 Efficiency ratio analysis (HL only)** **3.7 Cash flow** **3.8 Investment appraisal (some HL only)** **3.9 Budgets (HL only)**	

Unit- V: Operations management	Business Management by Paul Hoang 3rd Edition
5.1 The role of operations management **5.2 Production methods** **5.3 Lean production and quality management (HL only)** **5.4 Location** **5.5 Production planning (HL only)** **5.6 Research and development (HL only)** **5.7 Crisis management and contingency planning (HL only)**	

Content Taught in Grade 12

Units	Texts Studied
Unit 4: Marketing	Business Management by Paul Hoang 3rd Edition
4.1 The role of marketing **4.2 Marketing planning (including introduction to the four Ps)** **4.3 Sales forecasting (HL only)** **4.4 Market research** **4.5 The four Ps (product, price, promotion, place)** **4.6 The extended marketing mix of seven Ps (HL only)** **4.7 International marketing (HL only)** **4.8 E-commerce**	
Internal Assessment (IA)	In general a primary research based 2000 words Report is to be Submitted.

Skills:

In order to achieve the learning outcomes of this course, students will need a strong grasp of specific skills. An explanation of their importance is given below.

Language skills

The course provides students to develop and refine their language skills. In particular, they are expected to develop the ability to express their ideas in clear, unambiguous language, paying attention to appropriate style and register. Furthermore, they are expected to structure their ideas coherently and effectively, and to acquire vocabulary appropriate to formal expression and literary analysis.

Research skills

Potential extended essay work in business management, the internal assessment at both SL and HL, and their preparation for the conceptual examination questions provide opportunities for students to explore and develop their research skills. These include the identification of relevant materials, the design of data collection techniques, the collection and analysis of data, and the ability to evaluate and draw

Conclusions from data. Teachers are encouraged to discuss appropriate research methods with students. The *Business management teacher support material* provides further guidance on research skills.

While conceptually focused teaching, contextual teaching and research skills are highlighted as particularly relevant approaches to teaching and learning in business management, the course offers opportunities for teachers and students to explore a range of teaching and learning experiences.

Analytical skills

Analytical skill is the ability to visualize, articulate, conceptualize or solve both complex and uncomplicated problems by making decisions that are sensible given the available information. Business Management provides ample opportunities to the students to analysis various Business Problems from Real Life Business Organise and use the available information to making decisions or find critical solutions of them.

Assessment Outline:

Assessment Component	Weighting
External assessment (4 hours and 30 minutes)	**75%**
Paper 1 (2 hour and 15 minutes) Based on a case study issued in advance, with additional unseen material included in sections B and C. Assessment objectives 1, 2, 3, 4 ***(60 marks)*** ***Section A*** Syllabus content: Units 1–5 including HL extension topics Students answer three of four structured questions. (10 marks per question) ***Section B*** Syllabus content: Units 1–5 including HL extension topics Students answer one compulsory structured question. (20 marks) ***Section C*** Syllabus content: Units 1–5 including HL extension topics Students answer one compulsory extended response question primarily based on HL extension topics. (20 marks)	**35%**
Paper 2 (2 hour and 15 minutes) Assessment objectives 1, 2, 3, 4 ***(70 marks)*** ***Section A*** Syllabus content: Units 1–5 including HL extension topics Students answer one of two structured question based on stimulus material with a quantitative focus. (20 marks) ***Section B*** Syllabus content: Units 1–5 including HL extension topics Students answer two of three structured questions based on stimulus material. (20 marks per question)	**40%**

Section C Syllabus content: Units 1–5 including HL extension topics Students answer one of three extended response questions. This question is based primarily on two concepts that underpin the course. (20 marks)	

Internal Assessment

Component	Total Marks
Internal assessment (30 teaching hours) This component is internally assessed by the teacher and externally moderated by the IB at the end of the course. **Research project** Student's research and report on an issue facing an organization or a decision to be made by an organization (or several organizations). Maximum 2000 words. (25 marks)	**25%**

May 2016 Grade Boundaries

Subject: **BUS.& MAN.** Lvl: **HL** Subject Option: **BUS.& MAN.** Timezone: **0**

INTERNAL ASSESSMENT			PAPER ONE			PAPER TWO			FINAL		
Grade	From	To	Grade	From	To	Grade	From	To	Grade	From	To
1	0	3	1	0	9	1	0	10	1	0	12
2	4	6	2	10	19	2	11	20	2	13	25
3	7	9	3	20	29	3	21	28	3	26	37
4	10	12	4	30	37	4	29	36	4	38	47
5	13	15	5	38	44	5	37	45	5	48	58
6	16	18	6	45	52	6	46	53	6	59	69
7	19	25	7	53	80	7	54	75	7	70	100

Assessment objectives

1 Demonstrate knowledge and understanding of: the business management tools, techniques and theories specified in the syllabus content

1.1 The six concepts that underpin the subject

1.2 real-world business problems, issues and decisions

1.3 The HL extension topics **(HL only)**.

2 Demonstrate application and analysis of: knowledge and skills to a variety of real-world and fictional business situations

2.1 business decisions by explaining the issue(s) at stake, selecting and interpreting data, and applying appropriate tools, techniques, theories and concepts

2.2 the HL extension topics **(HL only)**.

3 Demonstrate synthesis and evaluation of: business strategies and practices, showing evidence of critical thinking

3.1 business decisions, formulating recommendations

3.2 The HL extension topics **(HL only)**.

4 Demonstrate a variety of appropriate skills to: produce well-structured written material using business terminology

4.1 select and use quantitative and qualitative business tools, techniques and methods

4.2 select and use business material, from a range of primary and secondary sources.

Glossary of Command Terms for HL

Command terms

Command terms are used both in the syllabus content and in examination questions to indicate depth of treatment. They are classified below according to the assessment objective (AO) levels. AO1—Demonstrate knowledge and understanding

AO2—Demonstrate application and analysis

AO3—Demonstrate synthesis and evaluation

AO4—Demonstrate a variety of appropriate skills

Assessment objective	Key command term	Depth
Demonstrate knowledge and understanding	Define Describe Outline State	These terms require learning and comprehending the meaning of Information
Demonstrate application and analysis of knowledge and understanding	Analyse Apply Comment Demonstrate Distinguish Explain Interpret Suggest	These terms require using knowledge and skills to break down ideas into simpler parts and to see how the parts relate.
Demonstrate synthesis and evaluation	Compare Compare and contrast Contrast Discuss Evaluate Examine Justify Recommend To what extent	These terms require rearranging component ideas into a new whole and making judgments based on evidence or a set of criteria.
Demonstrate a variety of appropriate skills	Annotate Calculate Complete	These terms require demonstrating the selection and use of subject-specific skills and techniques.

	Construct Determine Draw Identify Label Plot Prepare	

Subject: Business Management: SL

Syllabus Outline:

Content Taught in Grade 11

Units	Texts Studied
Unit-I : Business organization and environment	Business Management by Paul Hoang 3rd Edition
1.1 Introduction to business management **1.2 Types of organizations** **1.3 Organizational objectives** **1.4 Stakeholders** **1.5 External environment** **1.6 Growth and evolution**	
Unit -II : Human resource management	Business Management by Paul Hoang 3rd Edition
2.1 Functions and evolution of human resource management **2.2 Organizational structure** **2.3 Leadership and management** **2.4 Motivation**	
Unit -III: Finance and accounts	Business Management by Paul Hoang 3rd Edition
3.1 Sources of finance **3.2 Costs and revenues** **3.3 Break-even analysis** **3.4 Final accounts (some HL only)** **3.5 Profitability and liquidity ratio analysis** **3.7 Cash flow.**	
Unit- V: Operations management	Business Management by Paul Hoang 3rd Edition
5.1 The role of operations management **5.2 Production methods.** **5.4 Location Decision.**	

Content Taught in Grade 12

Units	Texts Studied
Unit 4: Marketing	Business Management by Paul Hoang 3rd Edition
4.1 The role of marketing **4.2 Marketing planning (including introduction to the four Ps)** **4.4 Market research** **4.5 The four Ps (product, price, promotion, place)** **4.8 E-commerce**	
Internal Assessment (IA)	In general a primary research based 2000 words Report is to be Submitted.

Skills:

In order to achieve the learning outcomes of this course, students will need a strong grasp of specific skills. An explanation of their importance is given below.

Language skills

The course provides students to develop and refine their language skills. In particular, they are expected to develop the ability to express their ideas in clear, unambiguous language, paying attention to appropriate style and register. Furthermore, they are expected to structure their ideas coherently and effectively, and to acquire vocabulary appropriate to formal expression and literary analysis.

Research skills

Potential extended essay work in business management, the internal assessment at both SL and HL, and their preparation for the conceptual examination questions provide opportunities for students to explore and develop their research skills. These include the identification of relevant materials, the design of data collection techniques, the collection and analysis of data, and the ability to evaluate and draw conclusions from data. Teachers are encouraged to discuss appropriate research methods with students. The *Business management teacher support material* provides further guidance on research skills.

While conceptually focused teaching, contextual teaching and research skills are highlighted as particularly relevant approaches to teaching and learning in business management, the course offers opportunities for teachers and students to explore a range of teaching and learning experiences.

Analytical skills

Analytical skill is the ability to visualize, articulate, conceptualize or solve both complex and uncomplicated problems by making decisions that are sensible given the available information. Business Management provides ample opportunities to the students to analysis various Business

Problems from Real Life Business Organise and use the available information to making decisions or find critical solutions of them

Assessment Outline:

Assessment Component	Weighting
External assessment (3 hours) **Paper 1 (1 hour and 15 minutes)** Based on a case study issued in advance, with additional unseen material included in section B. Assessment objectives 1, 2, 3, 4 (50 marks) *Section A* Syllabus content: Units 1–5 Students answer three of four structured questions. (10 marks per question) *Section B* Syllabus content: Units 1–5 Students answer one compulsory structured question. (20 marks)	**75%** **35%**
Paper 2 (1 hour and 45 minutes) Assessment objectives 1, 2, 3, 4 (60 marks) *Section A* Syllabus content: Units 1–5 Students answer one of two structured questions based on stimulus material with a quantitative focus. (20 marks) *Section B* Syllabus content: Units 1–5 Students answer one of three structured questions based on stimulus material. (20 marks)	**40%**
Section C **Syllabus content: Units 1–5** **Students answer one of three extended response questions. This question is based primarily on two concepts that underpin the course. (20 marks).**	

Assessment Outline:

Assessment Component	Weighting
External assessment (3 hours)	
Paper 1 (1 hour and 15 minutes)	**75%**
Based on a case study issued in advance, with additional unseen material included in section B.	**35%**
Assessment objectives 1, 2, 3, 4 (50 marks)	
Section A	
Syllabus content: Units 1–5	
Students answer three of four structured questions. (10 marks per question)	
Section B	
Syllabus content: Units 1–5	
Students answer one compulsory structured question. (20 marks)	
Paper 2 (1 hour and 45 minutes)	
Assessment objectives 1, 2, 3, 4 (60 marks)	
Section A	
Syllabus content: Units 1–5	
Students answer one of two structured questions based on stimulus material with a quantitative focus. (20 marks)	
Section B	**40%**
Syllabus content: Units 1–5	
Students answer one of three structured questions based on stimulus material. (20 marks)	
Section C	
Syllabus content: Units 1–5	
Students answer one of three extended response questions. This question is based primarily on two concepts that underpin the course. (20 marks).	

Internal Assessment

Component	Total Marks
	25%
Internal assessment (15 teaching hours)	
This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.	
Written commentary	
Students produce a written commentary based on three to five supporting documents about a real issue or problem facing a particular organization. Maximum 1500 words. (25 marks)	

Subject: **BUS.& MAN.** Lvl: **SL** Subject Option: **BUS.& MAN.** Timezone: **0**

INTERNAL ASSESSMENT			PAPER ONE			PAPER TWO			FINAL		
Grade	From	To	Grade	From	To	Grade	From	To	Grade	From	To
1	0	3	1	0	5	1	0	6	1	0	10
2	4	6	2	6	11	2	7	12	2	11	22
3	7	9	3	12	19	3	13	17	3	23	34
4	10	12	4	20	24	4	18	23	4	35	44
5	13	16	5	25	29	5	24	30	5	45	56
6	17	19	6	30	34	6	31	36	6	57	67
7	20	25	7	35	50	7	37	60	7	68	100

Assessment objectives

1 Demonstrate knowledge and understanding of: the business management tools, techniques and theories specified in the syllabus content

1.1 The six concepts that underpin the subject

1.2 real-world business problems, issues and decisions

2 Demonstrate application and analysis of: knowledge and skills to a variety of real-world and fictional business situations

2.1 business decisions by explaining the issue(s) at stake, selecting and interpreting data, and applying appropriate tools, techniques, theories and concepts

3 Demonstrate synthesis and evaluation of: business strategies and practices, showing evidence of critical thinking

3.1 business decisions, formulating recommendations

4 Demonstrate a variety of appropriate skills to: produce well-structured written material using business terminology

4.1 select and use quantitative and qualitative business tools, techniques and methods

4.2 select and use business material, from a range of primary and secondary sources.

Glossary of Command Terms for SL

Command terms

Command terms are used both in the syllabus content and in examination questions to indicate depth of treatment. They are classified below according to the assessment objective (AO) levels. AO1—Demonstrate knowledge and understanding

AO2—Demonstrate application and analysis

AO3—Demonstrate synthesis and evaluation

AO4—Demonstrate a variety of appropriate skills

Assessment objective	Key command term	Depth
Demonstrate knowledge and understanding	Define Describe Outline State	These terms require learning and comprehending the meaning of information
Demonstrate application and analysis of knowledge and understanding	Analyse Apply Comment Demonstrate Distinguish Explain Interpret Suggest	These terms require using knowledge and skills to break down ideas into simpler parts and to see how the parts relate.
Demonstrate synthesis and evaluation	Compare Compare and contrast Contrast Discuss Evaluate Examine Justify Recommend To what extent	These terms require rearranging component ideas into a new whole and making judgments based on evidence or a set of criteria.
Demonstrate a variety of appropriate skills	Annotate Calculate Complete Construct Determine Draw Identify Label Plot Prepare	These terms require demonstrating the selection and use of subject-specific skills and techniques.

Subject: Economics: SL and HL

Nature of the Subject:

Economics is a dynamic social science, forming 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 in the satisfaction of human wants. As a social science, economics uses scientific methodologies that include quantitative and qualitative elements.

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.

Economics aims:

The aims of the economics syllabus at SL and HL are to enable students to:

1. Develop an understanding of microeconomic and macroeconomic theories and concepts and their real-world application.
2. Develop an appreciation of the impact on individuals and societies of economic interactions between nations.
3. Develop an awareness of development issues facing nations as they undergo the process of change.

Syllabus Outline:

The syllabus consists of four sections.

- Microeconomics
- Macroeconomics
- International economics
- Development economics

These four sections will be examined and assessed. This is presented as follows.

Content Taught in Grade 11

Part	Texts Studied
Part 1: Micro-Economics	Competitive Market: Demand and Supply
	Elasticity: Types, Factors affecting.
	Government Intervention: Ways, Impact.
	Market Failure: Reasons.
	Theory Of the firm and market structures: Cost, Revenue, Profit.
	Market Structures: Monopoly, Perfect Competition, Monopolistic, Oligopoly.
Part 2: Macro-Economics	The Level Of Overall Economic Activity: The Circular flow of money, Measurement of National Income, Business Cycles.
	Aggregate Demand and Supply: Meaning, Market Equilibrium: Monetarists and Keynesian View, Need for Government intervention.
	Macroeconomic Objectives : Low Unemployment, Low and stable rate of inflation, Economic Growth, Equity in the distribution of income
	Policies: By Government (Fiscal) and Central Bank (Monetary) to achieve macroeconomic objectives. Impact of supply side policies.

Content Taught in Grade 12

Part	Texts Studied
Part 3: International Economics	Trade Theories, Barriers to trade- Tariff and non tariff.
	Exchange rates: Free floating, Pegged rates. Government intervention in controlling exchange rates.
	The Balance Of Payment: Structure. Deficits and surplus concepts.
	Economic Integration: Evolution of Economic markets, trade blocs.
	Terms of trade: Measurement, causes of changes and its consequences.
Part 4: Development Economics:	The nature of economic growth and development: Difference between growth and development. Diversity in Income, International development goals.
	Measuring development- Indicators,
	The role of domestic factors, international trade, foreign and multilateral development assistance, international debt,
	The balance between market and intervention by different agencies.

		External Assessment			
Component	Part of Syllabus	Assessment Criteria	Time	Marks	Total Marks
Paper 1:	Section A: Microeconomics	Extended response for one question from a choice of two.	1 Hour and 30 Minutes	25 Marks	50 Marks
	Section B: Macroeconomics	Extended response for one question from a choice of two.		25 Marks	
Paper 2:	Section A:International economics	Extended response for one question from a choice of two.	1 Hour and 30 Minutes	20 Marks	40 Marks
	Section B: Development economics	Extended response for one question from a choice of two.		20 Marks	
Paper 3:	**HL extension paper:** 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)	1 Hour	25 Marks each for two questions	50Marks
		Internal Assessment			
Economic Commentaries	Students produce a portfolio of three commentaries, based on different sections of the syllabus and on published extracts from the news media.	This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.	20 Teaching hours	15 marks for each commentary	45 Marks

Assessment Outline: For SL

		External Assessment			
Component	Part of Syllabus	Assessment Criteria	Time	Marks	Total Marks
Paper 1:	Section A: Microeconomics	Extended response for one question from a choice of two.	1 Hour and 30 Minutes	25 Marks	50 Marks
	Section B: Macroeconomics	Extended response for one question from a choice of two.		25 Marks	
Paper 2:	Section A:International economics	Data response for one question from a choice of two.	1 Hour and 30 Minutes	20 Marks	40 Marks
	Section B: Development economics	Data response for one question from a choice of two.		20 Marks	
		Internal Assessment			
Economic Commentaries	Students produce a portfolio of three commentaries, based on different sections of the syllabus and on published extracts from the news media.	This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.	20 Teaching hours	15 marks for each commentary	45 Marks

Grade Boundaries:

SL

Subject: BUS.& MAN. Lvl: SL Subject Option: BUS.& MAN. Timezone: 0

INTERNAL ASSESSMENT			PAPER ONE			PAPER TWO			FINAL		
Grade	From	To	Grade	From	To	Grade	From	To	Grade	From	To
1	0	3	1	0	5	1	0	6	1	0	10
2	4	6	2	6	11	2	7	12	2	11	22
3	7	9	3	12	19	3	13	17	3	23	34
4	10	12	4	20	24	4	18	23	4	35	44
5	13	16	5	25	29	5	24	30	5	45	56
6	17	19	6	30	34	6	31	36	6	57	67
7	20	25	7	35	50	7	37	60	7	68	100

For HL

Subject: **ECONOMICS** Lvl: **HL** Subject Option: **ECONOMICS** Timezone: **1**

INTERNAL ASSESSMENT			PAPER ONE			PAPER THREE			PAPER TWO			FINAL		
Grade	From	To	Grade	From	To	Grade	From	To	Grade	From	To	Grade	From	To
1	0	6	1	0	5	1	0	5	1	0	4	1	0	11
2	7	12	2	6	11	2	6	11	2	5	9	2	12	23
3	13	20	3	12	17	3	12	17	3	10	15	3	24	37
4	21	26	4	18	23	4	18	24	4	16	20	4	38	50
5	27	31	5	24	30	5	25	30	5	21	24	5	51	62
6	32	37	6	31	36	6	31	37	6	25	29	6	63	75
7	38	45	7	37	50	7	38	50	7	30	40	7	76	100

Assessment Objectives:

AO1—knowledge and understanding
AO2—application and analysis
AO3—synthesis and evaluation
A04—selection, use and application of a variety of appropriate skills and techniques.

Command terms with definitions:

Students should be familiar with the following key terms and phrases used in examination questions, which are to be understood as described below. Although these terms will be used frequently in examination questions, other terms may be used to direct students to present an argument in a specific way.

The assessment objectives (AOs) listed in the table are those referred to in the economics syllabus.

Command term: Definition asks students to:

Analyse AO2 Break down in order to bring out the essential elements or structure.

Apply AO2 Use an idea, equation, principle, theory or law in relation to a given problem or issue.

Calculate AO4 Obtain a numerical answer showing the relevant stages in the working.

Comment AO2 Give a judgment based on a given statement or result of a calculation.

Compare AO3 Give an account of the similarities between two (or more) items or situations, referring to both (all) of them throughout.

Compare and contrast AO3 Give an account of similarities and differences between two (or more) items or situations, referring to both (all) of them throughout.

Construct AO4 Display information in a diagrammatic or logical form.

Contrast AO3 Give an account of the differences between two (or more) items or situations, referring to both (all) of them throughout.

Define AO1 Give the precise meaning of a word, phrase, concept or physical quantity.

Derive AO4 Manipulate a mathematical relationship to give a new equation or relationship.

Describe AO1 Give a detailed account.

Determine AO4 Obtain the only possible answer.

Discuss AO3 Offer a considered and balanced review that includes a range of arguments, factors or hypotheses. Opinions or conclusions should be presented clearly and supported by appropriate evidence.

Distinguish AO2 Make clear the differences between two or more concepts or items.

Draw AO4 Represent by means of a labelled, accurate diagram or graph, using a pencil. A ruler (straight edge) should be used for straight lines. Diagrams should be drawn to scale. Graphs should have points correctly plotted (if appropriate) and joined in a straight line or smooth curve.

Evaluate AO3 Make an appraisal by weighing up the strengths and limitations.

Examine AO3 Consider an argument or concept in a way that uncovers the assumptions and interrelationships of the issue.

Explain AO2 Give a detailed account including reasons or causes.

Identify AO4 Provide an answer from a number of possibilities.

Justify AO3 Give valid reasons or evidence to support an answer or conclusion.
Label AO4 Add labels to a diagram.

List AO1 Give a sequence of brief answers with no explanation.
Measure AO4 Obtain a value for a quantity.
Outline AO1 Give a brief account or summary.

Plot AO4 Mark the position of points on a diagram.

Show AO4 Give the steps in a calculation or derivation.

Show that AO4 Obtain the required result (possibly using information given) without the formality of proof.
—Show that**‖** questions do not generally require the use of a calculator.

Sketch AO4 Represent by means of a diagram or graph (labelled as appropriate). The sketch should give a general idea of the required shape or relationship, and should include relevant features.

Solve AO4 Obtain the answer(s) using algebraic and/or numerical and/or graphical methods.

State AO1 Give a specific name, value or other brief answer without explanation or calculation.

Suggest AO2 Propose a solution, hypothesis or other possible answer.

To what extent AO3 Consider the merits or otherwise of an argument or concept. Opinions and conclusions should be presented clearly and supported with appropriate evidence and sound argument.

Subject: Psychology HL

Syllabus Outline:

Content Taught in Grade 11

Syllabus Component	Topics studied
Core	Biological approach to understanding behaviour
	Cognitive approach to understanding behaviour
Paper 3	Approaches to researching behaviour
Internal assessment	Introduction to experimental study and Mock experiments.

Contents taught in Grade XII

Syllabus Component	Topics studied
Core	Sociocultural approach to understanding behaviour
Options	Developmental Psychology
	Psychology of Human Relationships
Paper 3	Approaches to researching behaviour
Internal Assessment	Experimental Study. Final Experiments.

Skills: In order to achieve the learning outcomes of this course, students will need a strong grasp of specific skills.An explanation of their importance is given below.

Thinking Skill

The course will encourage the students to develop critical thinking, they will learn to analyse and apply these skillswhile they compare and contrast the methods used to gain knowledge with different approaches in Psychology. Furthermore, they are expected to develop higher order thinking skills by learning to recognize, interpret, execute, critique various studies, experiments and research methods.

Communication Skills:

The course provides students to develop and refine their language skills. In particular, they are expected to develop the ability to express their ideas in clear, unambiguous language, paying attention to appropriate style and register. Furthermore, they are expected to structure their ideas coherently and effectively, and to acquire vocabulary appropriate for critical thinking in Essay type response questions and Extended Essays.

Research Skills:

The course will help them develop this essential skill which will help them make effective connections between research skills and academic honesty. They will be taught to effectively use the internet skills as this they will require for researching studies for various approaches. The students will require this for many aspects for their IB development.

Assessment Outline – HL

ASSESSMENT COMPONENT	WEIGHTING
EXTERNAL ASSESSMENT (5 HOURS)	80%
PAPER 1 (2 HOURS) **SECTION A: THREE SHORT-ANSWER QUESTIONS ON THE CORE APPROACHES TO PSYCHOLOGY** **(27 MARKS)** **SECTION B: ONE ESSAY FROM A CHOICE OF THREE ON THE BIOLOGICAL, COGNITIVE AND SOCIOCULTURAL APPROACHES TO BEHAVIOUR. ONE, TWO OR ALL OF THE ESSAYS WILL REFERENCE THE ADDITIONAL HL TOPIC (22 MARKS)** **(TOTAL 49 MARKS)**	40% 20%
PAPER 2 (2 HOURS) **TWO QUESTIONS; ONE FROM A CHOICE OF THREE ON EACH OF TWO OPTIONS** **(TOTAL 44 MARKS)**	20%
PAPER 3 (1 HOUR) **THREE SHORT-ANSWER QUESTIONS FROM A LIST OF SIX STATIC QUESTIONS ON APPROACHES TO RESEARCH** **(24 MARKS)**	
INTERNAL ASSESSMENT (20 HOURS)	20%

THIS COMPONENT IS INTERNALLY ASSESSED BY THE TEACHER AND EXTERNALLY MODERATED BY THE IB AT THE END OF THE COURSE. **EXPERIMENTAL STUDY** **A REPORT ON AN EXPERIMENTAL STUDY UNDERTAKEN BY THE STUDENT** **(22 MARKS)**	

External Assessment

COMPONENT	PART OF SYLLABUS	ASSESSMENT CRITERIA	MARKS	TOTAL MARKS
PAPER 1	Section A	Three short-answer questions using AO1 and AO2 command terms. All three questions are compulsory.	9 * 3	27 Marks
	Section B	Single essay from a choice of three		22 Marks
		Criterion A: Focus on the question	2 Marks	
		Criterion B: Knowledge and understanding	6 Marks	
		Criterion C : Use of research to support the answer	6 Marks	
		Criterion D: Critical Thinking	6 Marks	
		Criterion E : Clarity and Organization	2 Marks	
PAPER 2	Option	Two essay questions, one for each option studied.		44 Marks
		Criterion A: Focus on the question	2 Marks	
		Criterion B: Knowledge and understanding	6 Marks	
		Criterion C : Use of research to support the answer	6 Marks	
		Criterion D: Critical Thinking	6 Marks	
		Criterion E : Clarity and Organization	2 Marks	
PAPER 3	Approaches to research in	3 Short Answer Questions		

	Psychology			
		Question 1: Consist of **three** set questions	9 Marks	
		Question 2: Consist of **one** of the following questions	6 Marks	24 marks
		Question 3 : Consist of **one** of the three questions	9 Marks	

Internal Assessment

COMPONENT	ASSESSMENT CRITERIA	MARKS	TOTAL MARKS
SIMPLE EXPERIMENTAL STUDY	A: Introduction	6 Marks	22 Marks
	B: Exploration	4 Marks	
	C: Analysis	6 Marks	
	D: Evaluation	6 Marks	

Subject: Psychology SL

Syllabus Outline:

Content Taught in Grade 11

Syllabus Component	Topics studied
Core	Biological approach to understanding behaviour
	Cognitive approach to understanding behaviour
Internal assessment	Introduction to experimental study and Mock experiments.

Contents taught in Grade XII

Syllabus Component	Topics studied
Core	Sociocultural approach to understanding behaviour
Options (Any one)	Developmental Psychology
	Psychology of Human Relationships
Internal Assessment	Experimental Study. Final Experiments.

Skills: In order to achieve the learning outcomes of this course, students will need a strong grasp of specific skills.An explanation of their importance is given below.

Thinking Skill

The course will encourage the students to develop critical thinking, they will learn to analyse and apply these skills while they compare and contrast the methods used to gain knowledge with different approaches in Psychology. Furthermore, they are expected to develop higher order thinking skills by learning to recognize, interpret, execute, critique various studies, experiments and research methods.

Communication Skills:

The course provides students to develop and refine their language skills. In particular, they are expected to develop the ability to express their ideas in clear, unambiguous language, paying attention to appropriate style and register. Furthermore, they are expected to structure their ideas coherently and effectively, and to acquire vocabulary appropriate for critical thinking in Essay type response questions and Extended Essays.

Research Skills:

The course will help them develop this essential skill which will help them make effective connections between research skills and academic honesty. They will be taught to effectively use the internet skills as this they will require for researching studies for various approaches. The students will require this for many aspects for their IB development.

Assessment Outline – SL

ASSESSMENT COMPONENT	WEIGHTING
EXTERNAL ASSESSMENT (3 HOURS)	75%
PAPER 1 (2 HOURS) **SECTION A: THREE SHORT-ANSWER QUESTIONS ON THE CORE APPROACHES TO PSYCHOLOGY (27 MARKS)** **SECTION B: ONE ESSAY FROM A CHOICE OF THREE ON THE BIOLOGICAL, COGNITIVE AND SOCIOCULTURAL APPROACHES TO BEHAVIOUR. ONE, TWO OR ALL OF THE ESSAYS WILL REFERENCE THE ADDITIONAL HL TOPIC (22 MARKS)** **(TOTAL 49 MARKS)**	50%
PAPER 2 (1 HOUR) **ONE QUESTIONS FROM A CHOICE OF THREE ON ONE OPTION** **(TOTAL 22 MARKS)**	25%
INTERNAL ASSESSMENT (20 HOURS) **THIS COMPONENT IS INTERNALLY ASSESSED BY THE TEACHER AND EXTERNALLY MODERATED BY THE IB AT THE END OF THE COURSE.** **EXPERIMENTAL STUDY**	25%

A REPORT ON AN EXPERIMENTAL STUDY UNDERTAKEN BY THE STUDENT **(22 MARKS)**	

External Assessment

COMPONENT	PART OF SYLLABUS	ASSESSMENT CRITERIA	MARKS	TOTAL MARKS
PAPER 1	Section A	Three short-answer questions using AO1 and AO2 command terms. All three questions are compulsory.	9 * 3	27 Marks
	Section B	Single essay from a choice of three		22 Marks
		Criterion A: Focus on the question	2 Marks	
		Criterion B: Knowledge and understanding	6 Marks	
		Criterion C : Use of research to support the answer	6 Marks	
		Criterion D: Critical Thinking	6 Marks	
		Criterion E : Clarity and Organization	2 Marks	
PAPER 2	Option	One essay questions from three on one option studied.		22 Marks
		Criterion A: Focus on the question	2 Marks	
		Criterion B: Knowledge and understanding	6 Marks	
		Criterion C : Use of research to support the answer	6 Marks	
		Criterion D: Critical Thinking	6 Marks	
		Criterion E : Clarity and Organization	2 Marks	

Internal Assessment

COMPONENT	ASSESSMENT CRITERIA	MARKS	TOTAL MARKS
SIMPLE EXPERIMENTAL STUDY	A: Introduction	6 Marks	22 Marks
	B: Exploration	4 Marks	
	C: Analysis	6 Marks	
	D: Evaluation	6 Marks	

Glossary of Command Terms for HL and SL

Students should be familiar with the following key terms and phrases used in examination questions, which are to be understood as described below :

Describe: Give a detailed account.

Identify: Provide an answer from a number of possibilities.

Outline: Give a brief account or summary.

Comment: Give a judgment based on a given statement or result of a calculation.

Explain : Give a detailed account including reasons or causes.

Suggest : Propose a solution, hypothesis or other possible answer.

Contrast : Give an account of the differences between two (or more) items or situations, referring to both (all) of them throughout.

Discuss: Offer a considered and balanced review that includes a range of arguments, factors or hypotheses. Opinions or conclusions should be presented clearly and supported by appropriate evidence.

Evaluate: Make an appraisal by weighing up the strengths and limitations.

To what extent: Consider the merits or otherwise of an argument or concept. Opinions and conclusions should be presented clearly and supported with appropriate evidence and sound argument.

Design : Produce a plan, simulation or model.

Investigate : Observe, study, or make a detailed and systematic examination, in order to establish facts and reach new conclusions.

Predict : Give an expected result.

IBDP Geography
Subject Handbook

Geography SL: - Syllabus

Part 1: Core theme—patterns and change

1. Populations in transition
2. Disparities in wealth and development
3. Patterns in environmental quality and sustainability
4. Patterns in resource consumption

Grade XI Content Coverage
Part 1: Core theme—patterns and change

Sub-topic	Development	Teaching hours
1. Populations in transition		
• Population change • Responses to high and low fertility	Explain population trends and patterns in births (Crude Birth Rate), natural increase and mortality (Crude Death Rate, infant and child mortality rates), fertility and life expectancy in contrasting regions of the world. Analyse population pyramids. Explain population momentum and its impact on population projections. Explain dependency and ageing ratios. Examine the impacts of youthful and ageing populations. Evaluate examples of a pro-natalist policy and an anti-natalist policy.	5 hours 4 hours
• Movement responses—migration • Gender and change	Discuss the causes of migrations, both forced and voluntary. Evaluate internal (national) and international migrations in terms of their geographic (socio-economic, political and environmental) impacts at their origins and destinations. Examine gender inequalities in culture, status, education, birth ratios, health, employment, empowerment, life expectancy, family size, migration, legal rights and land tenure.	6 hours 4 hours

Sub-topic	Development	Teaching hours
2. Disparities in wealth and development		
• Measurements of regional and global disparities	Define indices of infant mortality, education, nutrition, income, marginalization and Human Development Index (HDI). Explain the value of the indices in measuring disparities across the globe.	3 hours
• Origin of disparities	Explain disparities and inequities that occur within countries resulting from ethnicity, residence, parental education, income, employment (formal and informal) and land ownership.	3 hours
• Disparities and change	Identify and explain the changing patterns and trends of regional and global disparities of life expectancy, education and income.	5 hours
• Reducing disparities	Examine the progress made in meeting the Millennium Development Goals (MDGs) in poverty reduction, education and health. Discuss the different ways in which disparities can be reduced with an emphasis on trade and market access, debt relief, aid and remittances. Evaluate the effectiveness of strategies designed to reduce disparities.	5 hours

Sub-topic	Development	Teaching hours

3. Patterns in environmental quality and sustainability

• Atmosphere and change	Describe the functioning of the atmospheric system in terms of the energy balance between solar and longwave radiation. Explain the changes in this balance due to external forcings (changes in solar radiation, changes in the albedo of the atmosphere and changes in the	4 hours
• Biodiversity and change	Explain the concept and importance of biodiversity in tropical rainforests. Examine the causes and consequences of reduced biodiversity in this biome.	3 hours
• Sustainability and the environment	Define the concept of environmental sustainability. Evaluate a management strategy at a local or national scale designed to achieve environmental sustainability.	3 hours

Sub-topic	Development	Teaching hours
4. Patterns in resource consumption		
• Patterns of resource consumption	Evaluate the ecological footprint as a measure of the relationship between population size and resource consumption. Identify international variations in its size. Discuss the two opposing views (neo-Malthusian and anti-Malthusian) of the relationship between population size and resource consumption.	4 hours
• Changing patterns of energy consumption	Examine the global patterns and trends in the production and consumption of oil. Examine the geopolitical and environmental impacts of these changes in patterns and trends. Examine the changing importance of other energy sources.	2 hours 6 hours
• Conservation strategies	Discuss the reduction of resource consumption by conservation, waste reduction, recycling and substitution. Evaluate a strategy at a local or national scale aimed at reducing the consumption of one resource.	4 hours

Part 2: Optional themes

Two optional themes are required at **SL**

A. Freshwater—issues and conflicts
B. Oceans and their coastal margins
C. Extreme environments
D. Hazards and disasters—risk assessment and response
E. Leisure, sport and tourism
F. The geography of food and health
G. Urban environments

Part 2: Optional themes

Option D: Hazards and disasters—risk assessment and response

Environmental hazards exist at the interface between physical geography and human geography. Natural hazard events are often exacerbated by human actions, although conversely, human-induced hazard events are also affected by natural environmental conditions. The principles involved in studying natural hazards are identical to those involved in studying human-induced hazards.

The focus of this optional theme is on the full range of human adjustments and responses to hazards and disasters at a variety of scales. The term ―natural disaster‖ is deliberately avoided in this theme because it is not considered to be an accurate reflection of the multitude of underlying reasons that expose people to risk and subsequently create the pre-conditions necessary for a disaster to occur.

In studying this theme, students are expected to examine the following **four** hazards.

- **Either** earthquakes **or** volcanoes
- Hurricanes (tropical cyclones, typhoons)
- Droughts
- Any one recent human-induced (technological) hazard resulting in an explosion or escape of hazardous material

These four hazards do not necessarily require an equal allocation of time; the precise balance will vary according to local preferences. The syllabus is designed to allow for flexibility but it is recommended that the overall approach should be concept by concept (such as vulnerability, risk and risk assessment), rather than entirely thematic (hazard by hazard). At least **one** case study of a hazard event (or disaster) is required for each of the four hazard types.

Topics

1. **Characteristics of hazards**
2. **Vulnerability**
3. **Risk and risk assessment**
4. **Disasters**
5. **Adjustments and responses to hazards and disasters**

Option G: Urban environments

This optional theme considers cities as places of intense social interaction and as focal points of production, wealth generation and consumption. They exhibit diversity in patterns of wealth and deprivation, which can result in conflict. Transport improvements have led to rapid growth and shifts in population and economic activities, producing stresses and challenges for planners.

The theme also considers issues of sustainability where the city is regarded as a system with inputs and outputs that need to be managed to minimize environmental impacts. This theme recognizes that cities and towns may share common characteristics and processes irrespective of the national level of economic development.

For all sections of this optional theme (unless stated otherwise), **two** case studies of cities/large urban areas must be studied in **two** countries at contrasting levels of development.

Topics

1. **Urban populations**
2. **Urban land use**
3. **Urban stress**
4. **The sustainable city**

Assessment objectives in practice

Objectives	**Paper 1**	**Paper 2**	**Internal assessment**	**Overall**
1. Knowledge and understanding of specified content	45%	35%	20%	35% (SL)
2. Application and analysis of knowledge and understanding	30%	30%	20%	30%
3. Synthesis and evaluation	5%	10%	20%	10% (SL)
4. Selection, use and application of a variety of appropriate skills and techniques	20%	25%	40%	25%

Assessment outline—SL

Assessment component	Weighting
External assessment (2 hours 50 minutes) **Paper 1 (1 hour 30 minutes)** Syllabus content: Core theme Assessment objectives 1–4 Section A: Students answer **all** short-answer questions. Some include data. (45 marks) Section B: Students answer **one** extended response question. (15 marks) Section A and section B are common to both SL and HL assessment. (60 marks) **Paper 2 (1 hour 20 minutes)** Syllabus content: Two optional themes Assessment objectives 1–4 Students answer **two** structured questions based on stimulus material, each selected from a different optional theme. For each theme there is a choice of two questions. (20 marks per question) Some stimulus material is included in the resources booklet. This paper is common to both SL and HL assessment. (40 marks)	**75%** **40%** **35%**
Internal assessment (20 hours) This component is internally assessed by the teacher and externally moderated by the IB at the end of the course. Syllabus content: Any topic from the syllabus Assessment objectives 1–4 Written report based on fieldwork. Maximum 2,500 words (30 marks)	**25%**

Grade Boundaries for Geography-SL

Subject: **GEOGRAPHY** Lvl: **SL** Subject Option: **GEOGRAPHY** Timezone: **0**

INTERNAL ASSESSMENT			PAPER ONE			PAPER TWO			FINAL		
Grade	From	To	Grade	From	To	Grade	From	To	Grade	From	To
1	0	3	1	0	8	1	0	6	1	0	13
2	4	7	2	9	17	2	7	12	2	14	28
3	8	12	3	18	22	3	13	15	3	29	38
4	13	16	4	23	29	4	16	19	4	39	49
5	17	20	5	30	36	5	20	24	5	50	62
6	21	24	6	37	43	6	25	28	6	63	73
7	25	30	7	44	60	7	29	40	7	74	100

Geography HL: - Syllabus

Part 1: Core theme—patterns and change

5. Populations in transition
6. Disparities in wealth and development
7. Patterns in environmental quality and sustainability
8. Patterns in resource consumption

Grade XI Content Coverage
Part 1: Core theme—patterns and change

Sub-topic	Development	Teaching hours
1. Populations in transition		
• Population change • Responses to high and	Explain population trends and patterns in births (Crude Birth Rate), natural increase and mortality (Crude Death Rate, infant and child mortality rates), fertility and life expectancy in contrasting regions of the world. Analyse population pyramids. Explain	5 hours

low fertility • Movement responses—migration • Gender and change	population momentum and its impact on population projections. Explain dependency and ageing ratios. Examine the impacts of youthful and ageing populations. Evaluate examples of a pro-natalist policy and an anti-natalist policy. Discuss the causes of migrations, both forced and voluntary. Evaluate internal (national) and international migrations in terms of their geographic (socio-economic, political and environmental) impacts at their origins and destinations. Examine gender inequalities in culture, status, education, birth ratios, health, employment, empowerment, life expectancy, family size, migration, legal rights and land tenure.	4 hours 6 hours 4 hours

Sub-topic	**Development**	**Teaching hours**
2. Disparities in wealth and development		

Sub-topic	**Development**	**Teaching hours**
3. Patterns in environmental quality and sustainability		
•Atmosphere and change	Describe the functioning of the atmospheric system in terms of the energy balance between solar and longwave radiation. Explain the changes in this balance due to external forcings (changes in solar radiation, changes in the albedo of the atmosphere and changes in the longwave radiation returned to space). Discuss the causes and environmental consequences of global climate change.	4 hours 4 hours

• Biodiversity and change	Explain the concept and importance of biodiversity in tropical rainforests. Examine the causes and consequences of reduced biodiversity in this biome.	3 hours
• Sustainability and the environment	Define the concept of environmental sustainability. Evaluate a management strategy at a local or national scale designed to achieve environmental sustainability.	3 hours

Sub-topic	Development	Teaching hours
4. Patterns in resource consumption		
• Patterns of resource consumption	Evaluate the ecological footprint as a measure of the relationship between population size and resource consumption. Identify international variations in its size. Discuss the two opposing views (neo-Malthusian and anti-Malthusian) of the relationship between population size and resource consumption.	4 hours
• Changing patterns of energy consumption	Examine the global patterns and trends in the production and consumption of oil. Examine the geopolitical and environmental impacts of these changes in patterns and trends. Examine the changing importance of other energy sources.	2 hours 6 hours
• Conservation strategies	Discuss the reduction of resource consumption by conservation, waste reduction, recycling and substitution. Evaluate a strategy at a local or national scale aimed at reducing the consumption of one resource.	4 hours

Part 2: Optional themes

Three optional themes are required at **SL**.

A. Freshwater—issues and conflicts
B. Oceans and their coastal margins
C. Extreme environments
D. Hazards and disasters—risk assessment and response
E. Leisure, sport and tourism
F. The geography of food and health
G. Urban environments

Part 2: Optional themes

Option D: Hazards and disasters—risk assessment and response

Environmental hazards exist at the interface between physical geography and human geography. Natural hazard events are often exacerbated by human actions, although conversely, human-induced hazard events are also affected by natural environmental conditions. The principles involved in studying natural hazards are identical to those involved in studying human-induced hazards.

The focus of this optional theme is on the full range of human adjustments and responses to hazards and disasters at a variety of scales. The term ―natural disaster‖ is deliberately avoided in this theme because it is not considered to be an accurate reflection of the multitude of underlying reasons that expose people to risk and subsequently create the pre-conditions necessary for a disaster to occur.

In studying this theme, students are expected to examine the following **four** hazards.

- **Either** earthquakes **or** volcanoes
- Hurricanes (tropical cyclones, typhoons)
- Droughts
- Any one recent human-induced (technological) hazard resulting in an explosion or escape of hazardous material

These four hazards do not necessarily require an equal allocation of time; the precise balance will vary according to local preferences. The syllabus is designed to allow for flexibility but it is recommended that the overall approach should be concept by concept (such as vulnerability, risk and risk assessment), rather than entirely thematic (hazard by hazard). At least **one** case study of a hazard event (or disaster) is required for each of the four hazard types.

Topics

1. **Characteristics of hazards**
2. **Vulnerability**
3. **Risk and risk assessment**
4. **Disasters**
5. **Adjustments and responses to hazards and disasters**

Option E: Leisure, sport and tourism

Leisure is defined for the purposes of this optional theme as any freely chosen activity or experience that takes place in non-work time.

The leisure industry is a significant and rapidly expanding global economic sector. This option is designed to illustrate the pattern and diversity of leisure activities, their increasing popularity and their impact on environments, culture and economy on a range of scales from global to local. Issues and conflicts arise for planners and managers in meeting leisure demand, conserving natural resources and avoiding social conflict.

The theme focuses specifically on **tourism**, **sport** and **recreation**. Although the three terms are in defined separately, they overlap and participation them may be simultaneous. For example, a sporting activity may occur during a vacation.

Topics

1. **Leisure**
2. **Leisure at the international scale: tourism**
3. **Leisure at the international scale: sport**
4. **Leisure at the national/regional scale: tourism**
5. **Leisure at the local scale: tourism**
6. **Leisure at the local scale: sport and recreation**
7. **Sustainable tourism**

Option G: Urban environments

This optional theme considers cities as places of intense social interaction and as focal points of production, wealth generation and consumption. They exhibit diversity in patterns of wealth and deprivation, which can result in conflict. Transport improvements have led to rapid growth and shifts in population and economic activities, producing stresses and challenges for planners.

The theme also considers issues of sustainability where the city is regarded as a system with inputs and outputs that need to be managed to minimize environmental impacts. This theme recognizes that cities and towns may share common characteristics and processes irrespective of the national level of economic development.

For all sections of this optional theme (unless stated otherwise), **two** case studies of cities/large urban areas must be studied in **two** countries at contrasting levels of development.

Topics

5. **Urban populations**
6. **Urban land use**
7. **Urban stress**
8. **The sustainable city**

Grade XII Content Coverage

Part 3: HL extension—global interactions (HL only)

There are **seven** compulsory topics in the HL extension.

1. Measuring global interactions
2. Changing space—the shrinking world
3. Economic interactions and flows
4. Environmental change
5. Socio cultural exchanges
6. Political outcomes
7. Global interactions at the local level

.**Details of the Topic Development**

Sr No	Topic	Topic-Development
1	**Measuring global interactions**	Global participation Global core and periphery
2	**Changing space—the shrinking world**	Time–space convergence and the reduction in the friction of distance Extension and density of networks
3	**Economicinteractions and flows**	Financial flows Labour flows Information flows
4	**Environmental change**	Degradation through raw material production The effects of transnational manufacturing and services Transboundary pollution Homogenization of landscapes
5	**Sociocultural exchanges**	Cultural diffusion: the process Consumerism and culture Sociocultural integration
6	**Political outcomes**	Loss of sovereignty Responses
7	**Global interactions at the local level**	Defining globalization Adoption of globalization Local responses to globalization Alternatives

Assessment objectives in practice

Objectives	Paper 1	Paper 2	Paper 3	Internal assessment	Overall
1. Knowledge and understanding of specified content	45%	35%	35% (HL)	20%	30% (HL)
2. Application and analysis of knowledge and understanding	30%	30%	35% (HL)	20%	30%
3. Synthesis and evaluation	5%	10%	20% (HL)	20%	15% (HL)
4. Selection, use and application of a variety of appropriate skills and techniques	20%	25%	10% (HL)	40%	25%

Assessment outline—HL

Assessment component	Weighting
External assessment (4 hours 30 minutes)	**80%**
Paper 1 (1 hour 30 minutes) Syllabus content: Core theme Assessment objectives 1–4 Section A: Students answer **all** short-answer questions. Some include data. (45 marks) Section B: Students answer **one** extended response question. (15 marks) Section A and section B are common to both SL and HL assessment. (60 marks)	**25%** **35%**
Paper 2 (2 hours) Syllabus content: Three optional themes Assessment objectives 1–4 Students answer **three** structured questions based on stimulus material, each selected from a different theme. For each theme there is a choice of two questions. (20 marks per question) Some stimulus material is included in the resources booklet. This paper is common to both SL and HL assessment. (60 marks)	**20%**
Internal assessment (20 hours) This component is internally assessed by the teacher and externally moderated by the IB at the end of the course. Syllabus content: Any topic from the syllabus Assessment objectives 1–4 Written report based on fieldwork. Maximum 2,500 words	**20%**

Subject: **GEOGRAPHY** Lvl: **HL** Subject Option: **GEOGRAPHY** Timezone: **0**

INTERNAL ASSESSMENT			PAPER ONE			PAPER THREE			PAPER TWO			FINAL		
Grade	From	To	Grade	From	To	Grade	From	To	Grade	From	To	Grade	From	To
1	0	3	1	0	8	1	0	4	1	0	7	1	0	13
2	4	7	2	9	17	2	5	9	2	8	15	2	14	28
3	8	12	3	18	22	3	10	13	3	16	23	3	29	41
4	13	16	4	23	29	4	14	15	4	24	29	4	42	52
5	17	20	5	30	36	5	16	18	5	30	35	5	53	63
6	21	24	6	37	43	6	19	20	6	36	41	6	64	74
7	25	30	7	44	60	7	21	25	7	42	60	7	75	100

Geographic skills (SL/HL)

Skill	***Examples***
Locate and differentiate elements of the Earth's surface	*Using:* • *direction* • *latitude* • *Political units.*
Interpret, analyze and, when appropriate, construct tables, graphs, diagrams, cartographic material and images	*All kinds of maps, including:* • *isoline and isopleths maps* • *choropleth maps* • *rose diagrams* • *development diamonds.*
Undertake statistical calculations to show patterns and summarize information	*Such as:* • *totals* • *averages (means, medians, modes)* • *densities* • *percentages* • *ratios.*
Research, process and interpret data and information	Types of data and information: • measures of correlation (including Spearman rank and Chi‑squared) •perceptions. Processing and interpreting: • classify data and information • analyze data and information • evaluate methodology.
Collect and select relevant geographic information	Making: • observations • Measurements.
Evaluate sources of geographic information	In terms of: • accuracy • relevance • bias.
Produce written material (including essays, reports and investigations)	*Presenting:* • *material in a clear and well-structured way. Responding:* • *appropriately to command terms.*

Command terms with definitions

Analyze	AO2	Break down in order to bring out the essential elements or structure.
Annotate	AO4	Add brief notes to a diagram or graph.
Classify	AO2	Arrange or order by class or category.
Compare	AO3	Give an account of the similarities between two (or more) items or situations, referring to both (all) of
Compare and contrast	AO3	Give an account of similarities and differences between two (or more) items or situations, referring to both (all) of them throughout.
Construct	AO4	Display information in a diagrammatic or logical form.
Contrast	AO3	Give an account of the differences between two (or more) items or situations, referring to both (all) of
Define	AO1	Give the precise meaning of a word, phrase, concept or physical quantity.
Describe	AO1	Give a detailed account.
Determine	AO1	Obtain the only possible answer.
Discuss	AO3	Offer a considered and balanced review that includes a range of arguments, factors or hypotheses. Opinions or conclusions should be presented clearly
Distinguish	AO2	Make clear the differences between two or more concepts or items.
Draw	AO4	Represent by means of a labelled, accurate diagram or graph, using a pencil. A ruler (straight edge) should be used for straight lines. Diagrams should be drawn to scale. Graphs should have points correctly plotted (if appropriate) and joined in a
Estimate	AO1	Obtain an approximate value.

Evaluate	AO3	Make an appraisal by weighing up the strengths and limitations.
Examine	AO3	Consider an argument or concept in a way that
Explain	AO2	Give a detailed account including reasons or causes.
Identify	AO1	Provide an answer from a number of possibilities.
Justify	AO3	Give valid reasons or evidence to support an answer or conclusion.
Label	AO4	Add labels to a diagram.
Outline	AO1	Give a brief account or summary.
State	AO1	Give a specific name, value or other brief answer without explanation or calculation.
Suggest	AO2	Propose a solution, hypothesis or other possible
To what extent	AO3	Consider the merits or otherwise of an argument or concept. Opinions and conclusions should be presented clearly and supported with empirical evidence and sound argument.

Group 4: Computer Science

The Diploma Programme computer science course is engaging, accessible, inspiring and rigorous. It has the following characteristics.

• draws on a wide spectrum of knowledge

• enables and empowers innovation, exploration and the acquisition of further knowledge

• interacts with and influences cultures, society and how individuals and societies behave

• raises ethical issues

• is underpinned by computational thinking.

Computational thinking involves the ability to:

• think procedurally, logically, concurrently, abstractly, recursively and think ahead

• utilize an experimental and inquiry-based approach to problem-solving

• develop algorithms and express them clearly

• appreciate how theoretical and practical limitations affect the extent to which problems can be solved computationally.

During the course the student will develop computational solutions. This will involve the ability to:

• identify a problem or unanswered question

• design, prototype and test a proposed solution

•liaise with clients to evaluate the success of the proposed solution and make recommendations for future developments.

Links

Computer science has links with subjects outside of group 4, notably information technology in a global society (ITGS), but it should be noted that there are clear differences between the subjects.

Prior learning

Past experience shows that students will be able to study computer science at SL successfully with no background in, or previous knowledge of, computer science. Their approach to study, characterized by specific IB learner profile attributes—inquirers, thinkers and communicators—will be significant here. Students who have undertaken the IB Middle Years Programme (MYP) or studied a similar course prior to commencing the IB Diploma Programme would also be well prepared.

The study of computer science at HL demands a higher level of problem-solving skills and the ability to understand and manipulate abstract concepts. Although no previous knowledge of computer science is required, some exposure to programming is desirable.

Syllabus outline

Syllabus component	Teaching hours	
	SL	HL
Core syllabus content		
SL/HL core The topics that must be studied, including some practical work, are: • Topic 1: System fundamentals (20 hours) • Topic 2: Computer organization (6 hours) • Topic 3: Networks (9 hours) • Topic 4: Computational thinking, problem-solving and programming (45 hours)	80	80
HL extension The topics that must be studied, including some practical work, are: • Topic 5: Abstract data structures (23 hours) • Topic 6: Resource management (8 hours) • Topic 7: Control (14 hours)	---	45
Case study Additional subject content introduced by the annually issued case study	---	30
Option		
SL/HL core	30	30
HL extension Students study one of the following options: Option A: Databases Option B: Modelling and simulation Option C: Web science Option D: Object-oriented programming (OOP)	---	15
Internal assessment		
Solution Practical application of skills through the development of a product and associated documentation	30	30
Group 4 project	10	10
Total teaching hours	**150**	**240**

Assessment Outline- SL

Assessment component	Weighting
External assessment (2 hours 30 minutes) **Paper 1 (1 hour 30 minutes)** Paper 1 is an examination paper consisting of **two compulsory sections**. • Section A (30 minutes approximately) consists of several **compulsory** short answer questions. The maximum mark for this section is 25. • Section B (60 minutes approximately) consists of three **compulsory** structured questions. The maximum mark for this section is 45. (70 marks) **Paper 2 (1 hour)** Paper 2 is an examination paper linked to the option studied. The paper consists of between two and five **compulsory** questions. (45 marks) **Calculators:** The use of calculators is **not** permitted in any computer science examination.	**70%** **45%** **25%**
Internal assessment (40 hours) This component is internally assessed by the teacher and externally moderated by the IB at the end of the course. **Solution (30 hours)** The development of a computational solution. Students must produce: • a cover page that follows the prescribed format • a product • supporting documentation (word limit 2,000 words). (34 marks) **Group 4 project (10 hours)** To be assessed using the criterion Personal skills. (6 marks) (total 40 marks)	**30%**

Assessment Outline- HL

Assessment component	Weighting
External assessment (4 hours 30 minutes) **Paper 1 (2 hours 10 minutes)** Paper 1 is an examination paper consisting of **two compulsory sections**. • Section A (30 minutes approximately) consists of several **compulsory** short answer questions. The maximum mark for this section is 25. • Section B (100 minutes approximately) consists of five **compulsory** structured questions. The maximum mark for this section is 75. **Paper 2 (1 hour 20 minutes)** Paper 2 is an examination paper linked to the option studied. The paper consists of between three and seven **compulsory** questions. The SL/HL core questions are common and worth 45 marks, HL extension is worth 20 marks. (65 marks) **Paper 3 (1 hour)** Paper 3 is an examination paper of **1 hour** consisting of **four compulsory** questions based on a pre-seen case study. (30 marks) **Calculators:** The use of calculators is **not** permitted in any computer science examination.	**80%** **40%** **20%** **20%**
Internal assessment (40 hours) This component is internally assessed by the teacher and externally moderated by the IB at the end of the course. **Solution (30 hours)** The development of a computational solution. Students must produce: • a cover page that follows the prescribed format • a product • supporting documentation (word limit 2,000 words). (34 marks) **Group 4 project (10 hours)** To be assessed using the criterion Personal skills. (6 marks) (total 40 marks)	**20%**

Computer Science Grade Boundaries

Overall grade boundaries

Higher level

Grade:	1	2	3	4	5	6	7
Mark range:	0–14	15–28	29–38	39–47	48–56	57–65	66–100

Standard level

Grade:	1	2	3	4	5	6	7
Mark range:	0–14	15–29	30–42	43–51	52–60	61–70	71–100

Internal assessment – combined (HL & SL)

Component grade boundaries

Grade:	1	2	3	4	5	6	7
Mark range:	0–7	8–14	15–20	21–24	25–29	30–33	34–40

Subject: Biology HL
Syllabus Outline:
Content Taught in Grade 11

Core	Teaching hours
1. Cell Biology	15
2. Molecular Biology	21
3. Genetics	15
4. Ecology	12
5. Evolution and Biodiversity	12
6. Human Physiology	20
Advanced higher level (AHL)	Teaching hours
7. Nucleic acids	09
8. Metabolism, cell respiration and photosynthesis	14

Content Taught in Grade 12

Advanced Higher level	Teaching hours
9. Plant Biology	13
10. Genetics and evolution	08
11. Animal physiology	16
Options:	Teaching hours
A. Neurobiology and behaviour	25
B. Biotechnology and Bioinformatics	25
C.Ecology and evolution	25
D. Human physiology	25

Assessment Outline:

Assessment Component	**Weighting**
External assessment	**80%**
Paper 1: *Duration; 1 hour marks: 40* **40 multiple-choice questions on core material, 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.**	**20%**
Paper 2: : *Duration; 2 hour 15 min marks: 72* **Data-based question.** **• Short-answer and extended-response questions on core material.** **• Two out of three extended response questions to be attempted by candidates.** **• The questions on paper 2 test assessment objectives 1, 2 and 3.** **• The use of calculators is permitted.**	**36%**
Paper 3: : *Duration; 1 hour 15 min marks: 45* **Section A: candidates answer all questions, two to three short-answer questions based on experimental skills and techniques, analysis and evaluation, using unseen data linked to the core material.** **• 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.**	**24%**
Internal assessment **This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.** **Each candidate will have to furnish a lab write up called individual investigation of about 6-12 pages on a topic from the course layout in fulfilment of the course requirement.**	**20%**

Internal Assessment

Component	Assessment Criteria	Duration	Marks	Total Marks
Individual Investigation	1.Personal engagement	10 hours	2	
	2.Exploration		6	24
	3.Analysis		6	
	4.Evaluation		6	
	5.Communication		4	
Group 4 project	Subject specific/decided by group 4 teachers	10 hours	Internally assessed and marked.	
Lab work		40 hours		
	Total	60hours		
	IB Recommends 7 compulsory labs which will be completed during the course of 2 years along with other labs that will account for 40 hours.			
Compulsory labs	1)Use of a light microscope to investigate the structure and ultrastructure of cells and tissues, with drawing of cells and calculation of the magnification of drawings and the actual sizes of structures shown in drawings or micrographs. 2) Estimation of osmolarity in tissues by bathing samples in hypotonic and hypertonic solutions. 3)Experimental investigation of a factor affecting enzyme activity. 4) Separation of photosynthetic pigments by chromatography. 5) Setting up sealed mesocosms to try to establish sustainability 6) Monitoring of ventilation in humans at rest and after mild and vigorous exercise. 7) Measurement of transpiration rates using potometers			

May 2015 Grade Boundaries

Subject: **BIOLOGY** Lvl: **HL** Subject Option: **BIOLOGY** Timezone: **2**

PAPER 1 (MCQ)			PAPER THREE			PAPER TWO			PRACTICAL WORK			FINAL		
Grade	From	To	Grade	From	To	Grade	From	To	Grade	From	To	Grade	From	To
1	0	10	1	0	6	1	0	8	1	0	8	1	0	16
2	11	16	2	7	13	2	9	16	2	9	16	2	17	30
3	17	23	3	14	18	3	17	24	3	17	22	3	31	43
4	24	27	4	19	22	4	25	35	4	23	27	4	44	55
5	28	32	5	23	27	5	36	46	5	28	33	5	56	69
6	33	36	6	28	31	6	47	57	6	34	38	6	70	81
7	37	40	7	32	40	7	58	72	7	39	48	7	82	100

Subject: Biology SL
Syllabus Outline:
Content Taught in Grade 11

Core	Teaching hours
1. Cell Biology	15
2. Molecular Biology	21
3. Genetics	15
4. Ecology	12
5. Evolution and Biodiversity	12
6. Human Physiology	20

Content Taught in Grade 12

Options: (Any 1)	Teaching hours
A.Neurobiology and behaviour	15
B. Biotechnology and Bioinformatics	15
C.Ecology and evolution	15
D. Human physiology	15

Assessment Outline:

Assessment Component	Weighting
External assessment	**80%**
Paper 1: *Duration; 45 Minutes* *marks: 30* **30 multiple-choice questions on core material, 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.**	**20%**
Paper 2: : *Duration; 1 hour 15 min* *marks: 50* **Data-based question.** **• Short-answer and extended-response questions on core material.**	**40%**

• One out of two extended response questions to be attempted by candidates. **• The questions on paper 2 test assessment objectives 1, 2 and 3.** **• The use of calculators is permitted.** Paper 3: : *Duration; 1 hour* *marks: 35* **Section A: candidates answer all questions, two to three short-answer questions based on experimental skills and techniques, analysis and evaluation, using unseen data linked to the core material.** **• 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.**	**20%**
Internal assessment **This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.** **Each candidate will have to furnish a lab write up called individual investigation of about 6-12 pages on a topic from the course layout in fulfilment of the course requirement.**	**20%**

Internal Assessment

Component	Assessment Criteria	Duration	Marks	Total Marks
Individual Investigation	1.Personal engagement	10 hours	2	24
	2.Exploration		6	
	3.Analysis		6	
	4.Evaluation		6	
	5.Communication		4	
Group 4 project	Subject specific/decided by group 4 teachers	10 hours	Internally assessed and marked.	
Lab work		20 hours		
	Total	40hours		
	IB Recommends 7 compulsory labs which will be completed during the course of 2 years along with other labs that will account for 20 hours.			

Compulsory labs	1)Use of a light microscope to investigate the structure and ultrastructure of cells and tissues, with drawing of cells and calculation of the magnification of drawings and the actual sizes of structures shown in drawings or micrographs. 2) Estimation of osmolarity in tissues by bathing samples in hypotonic and hypertonic solutions. 3)Experimental investigation of a factor affecting enzyme activity. 4) Separation of photosynthetic pigments by chromatography. 5) Setting up sealed mesocosms to try to establish sustainability 6) Monitoring of ventilation in humans at rest and after mild and vigorous exercise. 7) Measurement of transpiration rates using potometers

May 2015 Grade Boundaries

Subject: **BIOLOGY** Lvl: **SL** Subject Option: **BIOLOGY** Timezone: **2**

PAPER 1 (MCQ)			PAPER THREE			PAPER TWO			PRACTICAL WORK			FINAL		
Grade	From	To	Grade	From	To	Grade	From	To	Grade	From	To	Grade	From	To
1	0	7	1	0	5	1	0	6	1	0	8	1	0	16
2	8	12	2	6	10	2	7	13	2	9	16	2	17	31
3	13	18	3	11	14	3	14	18	3	17	22	3	32	44
4	19	21	4	15	18	4	19	25	4	23	27	4	45	55
5	22	24	5	19	23	5	26	31	5	28	33	5	56	68
6	25	27	6	24	27	6	32	38	6	34	38	6	69	79
7	28	30	7	28	36	7	39	50	7	39	48	7	80	100

Subject: Physics HL

Syllabus Outline:

Content Taught in Grade 11

Syllabus Component	Recommended teaching hours
Measurement and Uncertainties	5
Mechanics	22
Thermal Physics	11
Waves	15
Electricity and Magnetism	15
Circular motion and gravitation	5
Atomic, nuclear and particle physics	14

PSOW: PRACTICAL SCHEME OF WORK: 30 hours of laboratory work which includes following experiments:

1. To determine the acceleration of free fall (g)
2. Applying calorimetric techniques of specific heat capacity or specific latent heat

3. Investigating at least one gas laws experimentally
4. Investigating speed of sound experimentally
5. Determine refractive index experimentally
6. Determining one or more factors affecting the resistance of wire
7. Determining internal resistance experimentally
8. Investigating half life experimentally

Content Taught in Grade 12 (Any one option to be done out of 4)

Syllabus Component	Recommended teaching hours
Energy production (SL)	8
Wave phenomenon	17
Fields	11
Electro Magnetic Induction	16
Quantum and Nuclear Physics	16
Option A : Relativity	25
Option B : Imaging	25
Option C : Astrophysics	25
Option D : Engineering Physics	25

PSOW : PRACTICAL SCHEME OF WORK : 20 hours of laboratory work which includes following experiments:

1. Investigation young's double slit experiment
2. Rectifier circuit
3. Any one experiment related to options (except for Astrophysics and Relativity)
4. To investigate EM induction experimentally
5. To determine the wavelength of source of light with the help of diffraction grating.
6. To find out the minimum angle of deviation for the prism.

- **Note For a student who opts for Physics HL , 60 hours of Lab work is compulsory. Which includes 10 hours of Individual investigation (a part of internal assessment) and 10 hours of Group -4 project.**

Individual investigation: Here a individual student investigates a scientific phenomenon based on the set criteria (discussed in detail below). Time allotted to it is 10 hours. **Group -4 project:** It a collaborative activity where students from different group-4 subjects work together on a scientific or technological topic. It can be a theoretical or practical approach towards the topic. Time allotted to it is 10 hours.

Skills:

In order to achieve the learning outcomes of this course, students will need a strong grasp of specific skills. An explanation of their importance is given below.

Mathematical skills

- All Diploma Programme physics students should be able to:
- perform the basic arithmetic functions: addition, subtraction, multiplication and division

- carry out calculations involving means, decimals, fractions, percentages, ratios, approximations and reciprocals
- carry out manipulations with trigonometric functions
- carry out manipulations with logarithmic and exponential functions (HL only)
- use standard notation (for example, 3.6 × 106)
- use direct and inverse proportion
- solve simple algebraic equations
- solve linear simultaneous equations
- plot graphs (with suitable scales and axes) including two variables that show linear and non-linear relationships
- interpret graphs, including the significance of gradients, changes in gradients, intercepts and areas
- draw lines (either curves or linear) of best fit on a scatter plot graph
- on a best-fit linear graph, construct linear lines of maximum and minimum gradients with relative accuracy (by eye) taking into account all uncertainty bars
- interpret data presented in various forms (for example, bar charts, histograms and pie charts)
- represent arithmetic mean using x-bar notation (for example, x)
- express uncertainties to one or two significant figures, with justification.

Laboratory skills

Integral to the experience of students in any of the group 4 courses is their experience in the classroom laboratory or in the field. Practical activities allow students to interact directly with natural phenomena and secondary data sources. These experiences provide the students with the opportunity to design investigations, collect data, develop manipulative skills, analyse results, collaborate with peers and evaluate and communicate their findings. Experiments can be used to introduce a topic, investigate a phenomenon or allow students to consider and examine questions and curiosities.

Assessment Outline:

Assessment Component	**Weighting**
External assessment (4 hours 30 min)	**80%**
Paper 1: 40 MCQ's on core and AHL , about 15 of which are common for core (1 hours) The use of calculator is not permitted, the use of data booklet is permitted and no marks are deducted for incorrect answers **(40 marks)**	**20%**
Paper 2: Short answer and extended response question on core and AHL material (2 hours 15 min) The use of calculator is permitted, the use of data booklet is permitted **(95 marks)**	**36%**

Paper 3: This paper has two sections. (1hour 15 min) Section –A : One data based question and several short questions on experimental work. Section – B : short answer and extended response questions from one option. **24%** The use of calculator is permitted, the use of data booklet is permitted **(45 marks)**	
Internal assessment **This component is internally assessed by the teacher and externally moderated by the IB at the end of the course. 20%** Individual investigation has to be carried out by the student on any topic of core or AHL. It could be any of the following • Hands on laboratory experiment • Computer simulation provided its interactive and open-ended • Using a spreadsheet for analysis and modelling • Data gathering exercises such as questionnaire, surveys... • Extract data from a data base and analyse it graphically • Producing a hybrid of spreadsheet/ database work with traditional hand on investigation.	

External Assessment

Component	Part of Syllabus	Assessment Criteria	Total Marks
Paper 1	All the topics	A: Demonstrate knowledge and understanding of : a. facts, concepts and terminology b. methodologies and techniques c. communicating scientific information.	40 Marks
		B: Apply : a. facts, concepts and terminology b. methodologies and techniques c. methods of communicating scientific information.	
		C: Formulate, Analyse and Evaluate : a. hypotheses, research questions and predictions b. methodologies and techniques c. primary and secondary data d. scientific explanations.	
Paper 2	All the topics	A: Demonstrate knowledge and understanding of : a. facts, concepts and terminology b. methodologies and techniques c. communicating scientific information.	95 Marks
		B: Apply :	

		a. facts, concepts and terminology b. methodologies and techniques c. methods of communicating scientific information.	
		C: Formulate, Analyse and Evaluate : a. hypotheses, research questions and predictions b. methodologies and techniques c. primary and secondary data d. scientific explanations.	
Paper 3	Data based question + one option	A: Demonstrate knowledge and understanding of : a. facts, concepts and terminology b. methodologies and techniques c. communicating scientific information.	45 marks
		B: Apply : a. facts, concepts and terminology b. methodologies and techniques c. methods of communicating scientific information.	
		C: Formulate, Analyse and Evaluate : a. hypotheses, research questions and predictions b. methodologies and techniques c. primary and secondary data d. scientific explanations.	

Internal Assessment

Component	Part of Syllabus	Assessment Criteria	Marks	Total Marks
Individual investigation	Any topic of the syllabus	Personal Engagement	2 Marks	24 marks
		Exploration	6 Marks	
		Analysis	6 Marks	
		Evaluation	6 Marks	
		Communication	4 Marks	

May 2015 Grade Boundaries:

Subject: **PHYSICS** Lvl: **HL** Subject Option: **PHYSICS** Timezone: **2**

PAPER 1 (MCQ)			PAPER THREE			PAPER TWO			PRACTICAL WORK			FINAL		
Grade	From	To	Grade	From	To	Grade	From	To	Grade	From	To	Grade	From	To
1	0	10	1	0	10	1	0	13	1	0	8	1	0	17
2	11	15	2	11	20	2	14	26	2	9	16	2	18	32
3	16	20	3	21	29	3	27	35	3	17	22	3	33	44
4	21	23	4	30	34	4	36	44	4	23	27	4	45	53
5	24	27	5	35	40	5	45	52	5	28	33	5	54	63
6	28	30	6	41	45	6	53	61	6	34	38	6	64	72
7	31	40	7	46	60	7	62	95	7	39	48	7	73	100

Subject: Physics SL

Syllabus Outline:

Content Taught in Grade 11

Syllabus Component	Recommended teaching hours
Measurement and Uncertainties	5
Mechanics	22
Thermal Physics	11
Waves	15
Electricity and Magnetism	15
Circular motion and gravitation	5
Atomic, nuclear and particle physics	14

PSOW : PRACTICAL SCHEME OF WORK : 30 hours of laboratory work which includes following experiments:

1. To determine the acceleration of free fall (g)
2. Applying calorimetric techniques of specific heat capacity or specific latent heat
3. Investigating at least one gas laws experimentally
4. Investigating speed of sound experimentally
5. Determine refractive index experimentally
6. Determining one or more factors affecting the resistance of wire
7. Determining internal resistance experimentally
8. Investigating half life experimentally

Content Taught in Grade 12 (Any one option to be done out of 4)

Syllabus Component	Recommended teaching hours
Energy production (SL)	8
Option A : Relativity	25
Option B : Imaging	25
Option C : Astrophysics	25
Option D : Engineering Physics	25

PSOW: PRACTICAL SCHEME OF WORK: 10 hours of laboratory work which includes following experiments:

7. Investigation young's double slit experiment
8. Rectifier circuit
9. Any one experiment related to options (except for Astrophysics and Relativity)

- **Note: For a student who opts for Physics SL, 40 hours of Lab work is compulsory. Which includes 10 hours of Individual investigation (a part of internal assessment) and 10 hours of Group -4 project.**

Individual investigation: Here a individual student investigates a scientific phenomenon based on the set criteria (discussed in detail below). Time allotted to it is 10 hours. **Group -4 project:** It a collaborative activity where students from different group-4 subjects work together on a scientific or technological topic. It can be a theoretical or practical approach towards the topic. Time allotted to it is 10 hours.

Skills:

In order to achieve the learning outcomes of this course, students will need a strong grasp of specific skills. An explanation of their importance is given below.

Mathematical skills

- All Diploma Programme physics students should be able to:
- perform the basic arithmetic functions: addition, subtraction, multiplication and division
- carry out calculations involving means, decimals, fractions, percentages, ratios, approximations and reciprocals
- carry out manipulations with trigonometric functions
- carry out manipulations with logarithmic and exponential functions (HL only)
- use standard notation (for example, 3.6 × 106)
- use direct and inverse proportion
- solve simple algebraic equations
- solve linear simultaneous equations
- plot graphs (with suitable scales and axes) including two variables that show linear and non-linear relationships
- interpret graphs, including the significance of gradients, changes in gradients, intercepts and areas
- draw lines (either curves or linear) of best fit on a scatter plot graph
- on a best-fit linear graph, construct linear lines of maximum and minimum gradients with relative accuracy (by eye) taking into account all uncertainty bars
- interpret data presented in various forms (for example, bar charts, histograms and pie charts)
- represent arithmetic mean using x-bar notation (for example, x)
- express uncertainties to one or two significant figures, with justification.

Laboratory skills

- Integral to the experience of students in any of the group 4 courses is their experience in the classroom laboratory or in the field. Practical activities allow students to interact directly with natural phenomena and secondary data sources. These experiences provide the students with the opportunity to design investigations, collect data, develop manipulative skills, analyse results, collaborate with peers and evaluate and communicate their findings. Experiments can be used to introduce a topic, investigate a phenomenon or allow students to consider and examine questions and curiosities.

Assessment Outline:

Assessment Component	Weighting
External assessment (3 hours) **Paper 1:** 30 MCQ's on core and AHL , about 15 of which are common for core (45 minutes) The use of calculator is not permitted, the use of data booklet is permitted and no marks are deducted for incorrect answers **(30 marks)** **Paper 2**: Short answer and extended response question on core and AHL material (1 hours 15 min) The use of calculator is permitted, the use of data booklet is permitted **(50 marks)** **Paper 3:** This paper has two sections. (1hour) Section –A : One data based question and several short questions on experimental work. Section – B : short answer and extended response questions from one option. The use of calculator is permitted, the use of data booklet is permitted **(30 marks)**	**80%** **20%** **40%** **20%**
Internal assessment **This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.** Individual investigation has to be carried out by the student on any topic of core or AHL. It could be any of the following • Hands on laboratory experiment • Computer simulation provided its interactive and open-ended • Using a spreadsheet for analysis and modelling • Data gathering exercises such as questionnaire, surveys... • Extract data from a data base and analyse it graphically • Producing a hybrid of spreadsheet/ database work with traditional hand on investigation.	**20%**

External Assessment

Component	Part of Syllabus	Assessment Criteria	Total Marks
Paper 1	All the topics	A: Demonstrate knowledge and understanding of : a. facts, concepts and terminology b. methodologies and techniques c. communicating scientific information.	30 Marks
		B: Apply :	

		a. facts, concepts and terminology b. methodologies and techniques c. methods of communicating scientific information.	
		C: Formulate, Analyse and Evaluate : a. hypotheses, research questions and predictions b. methodologies and techniques c. primary and secondary data d. scientific explanations.	
Paper 2	All the topics	A: Demonstrate knowledge and understanding of : a. facts, concepts and terminology b. methodologies and techniques c. communicating scientific information.	50 Marks
		B: Apply : a. facts, concepts and terminology b. methodologies and techniques c. methods of communicating scientific information.	
		C: Formulate, Analyse and Evaluate : a. hypotheses, research questions and predictions b. methodologies and techniques c. primary and secondary data d. scientific explanations.	
Paper 3	Data based question + one option	A: Demonstrate knowledge and understanding of : a. facts, concepts and terminology b. methodologies and techniques c. communicating scientific information.	30 marks
		B: Apply : a. facts, concepts and terminology b. methodologies and techniques c. methods of communicating scientific information.	
		C: Formulate, Analyse and Evaluate : a. hypotheses, research questions and predictions b. methodologies and techniques c. primary and secondary data d. scientific explanations.	

Internal Assessment

Component	Part of Syllabus	Assessment Criteria	Marks	Total Marks
Individual investigation	Any topic of the syllabus	Personal Engagement	2 Marks	24 marks
		Exploration	6 Marks	
		Analysis	6 Marks	
		Evaluation	6 Marks	
		Communication	4 Marks	

May 2015 Grade Boundaries

Subject: **PHYSICS** Lvl: **SL** Subject Option: **PHYSICS** Timezone: **2**

PAPER 1 (MCQ)			PAPER THREE			PAPER TWO			PRACTICAL WORK			FINAL		
Grade	From	To	Grade	From	To	Grade	From	To	Grade	From	To	Grade	From	To
1	0	7	1	0	6	1	0	6	1	0	8	1	0	16
2	8	10	2	7	12	2	7	12	2	9	16	2	17	30
3	11	14	3	13	18	3	13	17	3	17	22	3	31	42
4	15	17	4	19	21	4	18	22	4	23	27	4	43	52
5	18	19	5	22	25	5	23	27	5	28	33	5	53	61
6	20	22	6	26	28	6	28	32	6	34	38	6	62	71
7	23	30	7	29	40	7	33	50	7	39	48	7	72	100

Glossary of Command Terms for HL and SL

Students should be familiar with the following key terms and phrases used in examination questions, which are to be understood as described below

Command term	Definition
Define	Give the precise meaning of a word, phrase, concept or physical quantity.
Draw	Represent by means of a labelled, accurate diagram or graph, using a pencil. A ruler (straight edge) should be used for straight lines. Diagrams should be drawn to scale. Graphs should have points correctly plotted (if appropriate) and joined in a straight line or smooth curve.
Label	Add labels to a diagram.
List	Give a sequence of brief answers with no explanation.
Measure	Obtain a value for a quantity.
State	Give a specific name, value or other brief answer without explanation or calculation.
Write down	Obtain the answer(s), usually by extracting information. Little or no calculation is required. Working does not

	need to be shown.
Annotate	Add brief notes to a diagram or graph.
Apply	Use an idea, equation, principle, theory or law in relation to a given problem or issue.
Calculate	Obtain a numerical answer showing the relevant stages in the working.
Describe	Give a detailed account.
Distinguish	Make clear the differences between two or more concepts or items.
Estimate	Obtain an approximate value.
Formulate	Express precisely and systematically the relevant concept(s) or argument(s).
Identify	Provide an answer from a number of possibilities.
Outline	Give a brief account or summary.
Plot	Mark the position of points on a diagram.
Analyse	Break down in order to bring out the essential elements or structure.
Comment	Give a judgment based on a given statement or result of a calculation.
Compare	Give an account of the similarities between two (or more) items or situations, referring to both (all) of them throughout.
Compare and contrast	Give an account of similarities and differences between two (or more) items or situations, referring to both (all) of them throughout.
Construct	Display information in a diagrammatic or logical form.
Deduce	Reach a conclusion from the information given.
Demonstrate	Make clear by reasoning or evidence, illustrating with examples or practical application.
Derive	Manipulate a mathematical relationship to give a new equation or relationship.
Design	Produce a plan, simulation or model.
Determine	Obtain the only possible answer.

Discuss	Offer a considered and balanced review that includes a range of arguments, factors or hypotheses. Opinions or conclusions should be presented clearly and supported by appropriate evidence.
Evaluate	Make an appraisal by weighing up the strengths and limitations.
Explain	Give a detailed account including reasons or causes.
Hence	Use the preceding work to obtain the required result.
Hence or otherwise	It is suggested that the preceding work is used, but other methods could also receive credit.
Justify	Give valid reasons or evidence to support an answer or conclusion.
Predict	Give an expected result.
Show	Give the steps in a calculation or derivation.
Show that	Obtain the required result (possibly using information given) without the formality of proof. ―Show that‖ questions do not generally require the use of calculators
Sketch	Represent by means of a diagram or graph (labelled as appropriate). The sketch should give a general idea of the required shape or relationship, and should include relevant features.
Solve	Obtain the answer(s) using algebraic and/or numerical and/or graphical methods.
Suggest	Propose a solution, hypothesis or other possible answer.

Note: all the above information has been compiled from IBDP Physics Guide (First assessment 2016).

Subject: Chemistry :Standard Level

Syllabus Outline:

Content Taught in Grade 11

S.No.	Syllabus Component	Recommended teaching hours	Labs related to the topic
1.	Stoichiometric relationships	13.5	1. Obtaining and using experimental data for deriving empirical formulas from reactions involving mass changes. 2. Use of the experimental method of titration to calculate the concentration of a solution by reference to a standard solution. 3. Obtaining and using experimental values to calculate the molar mass of a gas from the ideal gas equation.
2.	Atomic Structure	6	
3.	Periodicity	6	
4.	Chemical bonding and Structure	13.5	
5.	Equilibrium	4.5	Perform lab experiments which could include single replacement reactions in aqueous solutions.
6.	Organic Chemistry	11	Construction of 3D models (real or virtual) of organic molecules.

Content Taught in Grade 12

7.	Acids and bases	6.5	Candidates should have experience of acid–base titrations with different indicators. Students should be familiar with the use of a pH meter and universal indicator.
8.	Redox processes	8	Performance of laboratory experiments involving a typical voltaic cell using two metal/metal–ion half-cells
9.	Energetic	9	A calorimetry experiment for an enthalpy of reaction should be covered and the results evaluated
10	Chemical kinetics	7	Investigation of rates of reaction experimentally and evaluation of results.
11.	Measurement and data processing	10	*This unit will not be taught separately, each subtopic will be covered during

			practical's.
12.	Any one Option topic (As per students interest)	15	A: Materials B: Biochemistry C: Energy D: Medicinal chemistry

- **Note: For Chemistry SL students, 40 hours of Lab work is compulsory. It also includes 10 hours of Individual investigation (a part of internal assessment) and 10 hours of Group -4 project.**

Assessment Outline

Chemistry SL

Component	Overall weighting (%)	Marks	Paper Type	Duration
Paper 1	20	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.	45 minutes
Paper 2	40	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.	1 hr 15 min
Paper 3	20	35	•This paper will have questions on core and SL option material. Section A: One data-based question and several short-answer questions on	1 hr

			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			10 hrs

May 2015 Grade Boundaries

Subject: **CHEMISTRY** Lvl: **SL** Subject Option: **CHEMISTRY** Timezone: **2**

PAPER 1 (MCQ)			PAPER THREE			PAPER TWO			PRACTICAL WORK			FINAL		
Grade	From	To	Grade	From	To	Grade	From	To	Grade	From	To	Grade	From	To
1	0	7	1	0	6	1	0	6	1	0	8	1	0	16
2	8	11	2	7	12	2	7	12	2	9	16	2	17	30
3	12	15	3	13	15	3	13	18	3	17	22	3	31	42
4	16	18	4	16	19	4	19	24	4	23	27	4	43	52
5	19	21	5	20	24	5	25	29	5	28	33	5	53	63
6	22	24	6	25	28	6	30	35	6	34	38	6	64	74
7	25	30	7	29	40	7	36	50	7	39	48	7	75	100

Subject: Chemistry: Higher Level

Syllabus Outline: Content Taught in Grade 11

S.No.	Syllabus Component	Recommended teaching hours	Labs related to the topic
1.	Stoichiometric relationships	13.5	1. Obtaining and using experimental data for deriving empirical formulas from reactions involving mass changes. 2. Use of the experimental method of titration to calculate the concentration of a solution by reference to a standard solution. 3. Obtaining and using experimental values to calculate the molar mass of a gas from the ideal gas equation.
2.	Atomic Structure	8	
3.	Periodicity	10	

4.	Chemical bonding and Structure	20.5	
5.	Equilibrium	8.5	Perform lab experiments which could include single replacement reactions in aqueous solutions.
6.	Organic Chemistry	23	Construction of 3D models (real or virtual) of organic molecules.
Content Taught in Grade 12			
7.	Acids and bases	16.5	Candidates should have experience of acid–base titrations with different indicators. Students should be familiar with the use of a pH meter and universal indicator.
8.	Redox processes	14	Performance of laboratory experiments involving a typical voltaic cell using two metal/metal–ion half-cells
9.	Energetic	16	A calorimetry experiment for an enthalpy of reaction should be covered and the results evaluated
10	Chemical kinetics	13	Investigation of rates of reaction experimentally and evaluation of results.
11.	Measurement and data processing	10	*This unit will not be taught separately, each subtopic will be covered during practicals.
12.	Any one Option topic (As per students interest)	25	A: Materials B: Biochemistry C: Energy D: Medicinal chemistry

- **Note: For Chemistry HL students, 60 hours of Lab work is compulsory. It also includes 10 hours of Individual investigation (a part of internal assessment) and 10 hours of Group -4 project.**

Assessment Outline

Chemistry HL

Component	Overall weighting (%)	Marks	Paper Type	Duration
Paper 1	20	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.	1 hr
Paper 2	36	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. • A chemistry data booklet is to be provided by the school.	2 hr 15 min
Paper 3	24	45	•This paper will have questions on core, AHL and option material. <u>Section A</u> One data-based question and several short-answer questions on experimental work. <u>Section B</u> Short-answer and	1 hr 15 min

			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			10 hrs

May 2015 Grade Boundaries

Subject: **CHEMISTRY** Lvl: **HL** Subject Option: **CHEMISTRY** Timezone: **2**

PAPER 1 (MCQ)			PAPER THREE			PAPER TWO			PRACTICAL WORK			FINAL		
Grade	From	To	Grade	From	To	Grade	From	To	Grade	From	To	Grade	From	To
1	0	10	1	0	7	1	0	12	1	0	8	1	0	17
2	11	14	2	8	15	2	13	24	2	9	16	2	18	31
3	15	19	3	16	21	3	25	33	3	17	22	3	32	42
4	20	23	4	22	26	4	34	44	4	23	27	4	43	53
5	24	28	5	27	32	5	45	56	5	28	33	5	54	66
6	29	32	6	33	37	6	57	67	6	34	38	6	67	77
7	33	40	7	38	50	7	68	90	7	39	48	7	78	100

Internal Assessment (both for SL and HL): Total Marks 24

The internal assessment is an integral part of the course compulsory for both SL and HL. The

task will be one scientific investigation taking about 10 hrs, internally assessed by the teacher

and externally moderated by IB. It contributes 20% to the final assessment in the SL and HL

course.

G**roup 4 project:**

It is a collaborative activity where students from different group 4 subjects work together on the scientific topics. Total 10 hrs are allotted to the group 4 project.

Skills:

In order to achieve the learning outcomes of this course, students will need a strong grasp of specific skills. **Mathematical skills**

All diploma Programme chemistry students should be able to:

- Perform the basic arithmetic functions: addition, subtraction, multiplication and division
- Carry out calculations involving means, decimals, fractions, percentages, ratios, approximations and reciprocals
- Use standard notation (for example, 3.6 × 106)
- Use direct and inverse proportion
- Solve simple algebraic equations
- Plot graphs (with suitable scales and axes) including two variables that show linear and non-linear relationships
- Interpret graphs, including the significance of gradients, changes in gradients, intercepts and areas

Experimental and Investigative Scientific skills

- Practical work and internal assessment allow students to interact directly with natural phenomena and secondary data sources. These experiences provide the students with the opportunity to design investigations, collect data, develop manipulative skills, analyse results, collaborate with peers and evaluate and communicate their findings.

Glossary of Command Terms for HL and SL

Students should be familiar with the following key terms and phrases used in examination questions, which are to be understood as described below:

Command term	Definition
Define	Give the precise meaning of a word, phrase, concept or physical quantity.
Draw	Represent by means of a labeled, accurate diagram or graph, using a pencil. A ruler (straight edge) should be used for straight lines. Diagrams should be drawn to scale. Graphs should have points correctly plotted (if appropriate) and joined in a straight line or smooth curve.
Label	Add labels to a diagram.
List	Give a sequence of brief answers with no explanation.
Measure	Obtain a value for a quantity.
State	Give a specific name, value or other brief

	answer without explanation or calculation.
Write down	Obtain the answer(s), usually by extracting information. Little or no calculation is required. Working does not need to be shown.
Annotate	Add brief notes to a diagram or graph.
Apply	Use an idea, equation, principle, theory or law in relation to a given problem or issue.
Calculate	Obtain a numerical answer showing the relevant stages in the working.
Describe	Give a detailed account.
Distinguish	Make clear the differences between two or more concepts or items.
Estimate	Obtain an approximate value.
Formulate	Express precisely and systematically the relevant concept(s) or argument(s).
Identify	Provide an answer from a number of possibilities.
Outline	Give a brief account or summary.
Plot	Mark the position of points on a diagram.
Analyse	Break down in order to bring out the essential elements or structure.
Comment	Give a judgment based on a given statement or result of a calculation.
Compare	Give an account of the similarities between two (or more) items or situations, referring to both (all) of them throughout.
Compare and contrast	Give an account of similarities and differences between two (or more) items or situations, referring to both (all) of them throughout.
Construct	Display information in a diagrammatic or logical form.
Deduce	Reach a conclusion from the information given.
Demonstrate	Make clear by reasoning or evidence, illustrating with examples or practical application.

Derive	Manipulate a mathematical relationship to give a new equation or relationship.
Design	Produce a plan, simulation or model.
Determine	Obtain the only possible answer.
Discuss	Offer a considered and balanced review that includes a range of arguments, factors or hypotheses. Opinions or conclusions should be presented clearly and supported by appropriate evidence.
Evaluate	Make an appraisal by weighing up the strengths and limitations.
Explain	Give a detailed account including reasons or causes.
Hence	Use the preceding work to obtain the required result.
Hence or otherwise	It is suggested that the preceding work is used, but other methods could also receive credit.
Justify	Give valid reasons or evidence to support an answer or conclusion.
Predict	Give an expected result.
Show	Give the steps in a calculation or derivation.
Show that	Obtain the required result (possibly using information given) without the formality of proof. ―Show that‖ questions do not generally require the use of calculators
Sketch	Represent by means of a diagram or graph (labelled as appropriate). The sketch should give a general idea of the required shape or relationship, and should include relevant features.
Solve	Obtain the answer(s) using algebraic and/or numerical and/or graphical methods.
Suggest	Propose a solution, hypothesis or other possible answer.

Subject: Environmental systems and societies.
Syllabus Outline:
Content Taught in Grade 11

chapter	Teaching hours
1. Foundations of environmental systems and societies	16
2. Ecosystem and ecology	25
3. Biodiversity and conservation	13
4. Water and aquatic food production systems and societies	15

Content Taught in Grade 12

Advanced Higher level	Teaching hours
5. Soil systems and terrestrial food production systems and societies	12
6. Atmospheric systems and societies	10
7. Climate change and energy production	13
8. Human system and resource use	16

Assessment Outline:

Assessment Component	Weighting
External assessment	**75%**
Paper 1: *Duration; 1 hour* *marks: 40* **Students will be provided with a range of data in a variety of forms relating to a specific, previously unseen case study.** **• Questions will be based on the analysis and evaluation of the data in the case study.** **• All of the questions are compulsory.** **• The questions test assessment objectives 1, 2 and 3..**	**25%**
Paper 2: : *Duration; 2 hour* *marks: 65* **Paper 2 consists of two sections, A and B.** **• Section A (25 marks) is made up of short-answer and data-based questions.** **• Section B (40 marks) requires students to answer two structured essay questions from a choice of four. Each question is worth 20**	**50%**

marks.	
Internal assessment **This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.** **Each candidate will have to furnish a lab write up called individual investigation of 1500-2250 words on a topic from the course layout in fulfilment of the course requirement.**	**25%**

Internal Assessment

Component	Assessment Criteria	Duration (10hours)	Marks	Total Marks
Individual Investigation	1.Identifying the context		6	30
	2.Planning		6	
	3.Results, analysis and conclusion		6	
	4.Discussion and evaluation		6	
	5.Application		3	
	6.Communication		3	
			Internally assessed and marked.	
Lab work		20 hours		
	Total	30hours		

May 2015 Grade Boundaries

Subject: **ENV. AND SOC.** Lvl: **SL** Subject Option: **ENV. AND SOC.** Timezone: **0**

PAPER ONE			PAPER TWO			PRACTICAL WORK			FINAL		
Grade	From	To	Grade	From	To	Grade	From	To	Grade	From	To
1	0	4	1	0	7	1	0	7	1	0	11
2	5	9	2	8	14	2	8	14	2	12	23
3	10	14	3	15	19	3	15	19	3	24	33
4	15	19	4	20	27	4	20	24	4	34	45
5	20	23	5	28	34	5	25	29	5	46	55
6	24	28	6	35	42	6	30	34	6	56	67
7	29	45	7	43	65	7	35	42	7	68	100

GROUP 5 (MATHEMATICS)

Subject: Mathematics- HL

Content Taught in Grade 11

Topic	Teaching hours
Algebra	30
Function and Equations	22
Circular Trigonometry and Functions	22
Vectors	24

Content Taught in Grade 12

Topic	Teaching Hours
Calculus	48
Statistics and Probability	36
Option syllabus Content Topic-9 Calculus	48
Mathematical Exploration	10
Total Teaching Hours	*240*

Assessment Criteria

Assessment Component	Weighting
External assessment (5 hours) **Paper 1 (2 hours)** **No calculator allowed. (100 marks)** **Section A** **Compulsory short-response questions based on the core syllabus.** **Section B** **Compulsory extended-response questions based on the core syllabus.**	**80%** **30%**
Paper 2 (2 hours) **Graphic display calculator required. (100marks)** **Section A** **Compulsory short-response questions based on the core syllabus.** **Section B** **Compulsory extended-response questions based on the core syllabus.**	**30%**
Paper 3 (1 hour) **Graphic display calculator required. (50marks)** **Compulsory extended-response questions based mainly on the syllabus options.**	**20%**

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 HL is an individual exploration. This is a piece of written work that involves investigating an area of mathematics. (20 marks)**	**20%**

May 2015 Grade Boundaries

EXPLORATION			PAPER ONE			PAPER THREE			PAPER TWO			FINAL		
Grade	From	To	Grade	From	To	Grade	From	To	Grade	From	To	Grade	From	To
1	0	2	1	0	17	1	0	9	1	0	16	1	0	13
2	3	5	2	18	34	2	10	18	2	17	33	2	14	28
3	6	8	3	35	47	3	19	24	3	34	49	3	29	40
4	9	11	4	48	59	4	25	31	4	50	63	4	41	52
5	12	14	5	60	72	5	32	38	5	64	76	5	53	64
6	15	16	6	73	84	6	39	45	6	77	90	6	65	74
7	17	20	7	85	120	7	46	60	7	91	120	7	75	100

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. Regulations covering the types of GDC allowed are provided in the *Handbook of procedures for the Diploma Programme*.

Subject: Mathematics- SL

Content Taught in Grade 11

Topic	Teaching hours
Algebra	9
Functions and Equations	24
Circular Functions and Trigonometry	16
Vectors	16

Content Taught in Grade 12

Topic	Teaching hours
Calculus	40
Statistics and Probability	35
Math Exploration	10
Total Teaching hours	*150*

Assessment Criteria:

Assessment Component	Weighting
External assessment (3 hours) **Paper 1 (1 hour 30 minutes)** **No calculator allowed. (90 marks)** **Section A** **Compulsory short-response questions based on the core syllabus.** **Section B** **Compulsory extended-response questions based on the core syllabus.** **Paper 2 (1 hour 30 minutes)** **Graphic display calculator required. (90marks)** **Section A** **Compulsory short-response questions based on the core syllabus.** **Section B** **Compulsory extended-response questions based on the core syllabus.**	**80%** **40%** **40%**
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**	**20%**

mathematics.	**(20 marks)**	

May 2015 Grade Boundaries-Mathematics SL

EXPLORATION			PAPER ONE			PAPER TWO			FINAL		
Grade	From	To	Grade	From	To	Grade	From	To	Grade	From	To
1	0	2	1	0	17	1	0	15	1	0	16
2	3	5	2	18	35	2	16	30	2	17	34
3	6	8	3	36	48	3	31	38	3	35	46
4	9	11	4	49	57	4	39	47	4	47	57
5	12	14	5	58	67	5	48	57	5	58	69
6	15	17	6	68	76	6	58	66	6	70	80
7	18	20	7	77	90	7	67	90	7	81	100

EXTERNAL ASSESSMENT DETAILS:

Papers 1 and 2

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

Students must have access to a GDC at all times. However, not all questions will necessarily require the use of the GDC. Regulations covering the types of GDC allowed are provided in the *Handbook of procedures for the Diploma Programme*.

SUBJECT: Mathematics Studies

Contents taught in IB1:

Topic	Teaching hours
Number and Algebra	20
Geometry and	18

Trigonometry	
Logic, Sets and Probability	20
Descriptive statistics	12
Statistical Applications	17

Contents taught in IB2:

Topic	Teaching hours
Introduction to differential calculus	18
Mathematica Modelling	20
Project	25
Total Teaching hours	150

ASSESSMENT CRITERIA:

Assessment Component	Weighting
External assessment (3 hours) **Paper 1 (1 hour 30 minutes)** **Graphic display calculator allowed. (90 marks)** **15 compulsory short-response questions based on the whole syllabus.** **Paper 2 (1 hour 30 minutes)** **Graphic display calculator required. (90marks)** **6 compulsory extended-response questions based on the whole syllabus**	**80%** **40%** **40%**
Internal assessment **This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.** **Project:** **The project is an individual piece of work involving the collection of information or the generation of the measurements, and the analysis and evaluation of the information or measurements (20 Marks)**	**20%**

MAY 2015 GRADE BOUNDARIES-MATH STUDIES

PAPER ONE			PAPER TWO			PROJECT			FINAL		
Grade	From	To	Grade	From	To	Grade	From	To	Grade	From	To
1	0	12	1	0	14	1	0	4	1	0	16
2	13	25	2	15	28	2	5	6	2	17	30
3	26	36	3	29	40	3	7	8	3	31	42
4	37	48	4	41	50	4	9	11	4	43	55
5	49	61	5	51	61	5	12	14	5	56	68
6	62	73	6	62	71	6	15	16	6	69	80
7	74	90	7	72	90	7	17	20	7	81	100

EXTERNAL ASSESSMENT DETAILS:

Papers 1 and 2

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

For both examination papers, students must have access to a GDC at all times. Regulations covering the type of GDC allowed are provided in the *Handbook of procedures for the Diploma Program.*

GROUP 5 AIMS:

The aims of all mathematics course in group 5 are to enable students to:

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. employ and refine their powers of abstraction and generalization

6. apply and transfer skills to alternative situations, to other areas of knowledge and to future developments
7. appreciate how developments in technology and mathematics have influenced each other
8. appreciate the moral, social and ethical implications arising from the work of mathematicians and the applications of mathematics
9. appreciate the international dimension in mathematics through an awareness of the universality of mathematics and its multicultural and historical perspectives
10. appreciate the contribution of mathematics to other disciplines, and as a particular ―area of knowledge‖ in the TOK course.

SKILLS:

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 analysing information, making conjectures, drawing conclusions and testing their validity.

COMMAND TERMS WITH DEFINITIONS FOR GROUP 5:

Calculate	**Obtain a numerical answer showing the relevant stages in the working.**
Comment	**Give a judgment based on a given statement or result of a calculation.**
Compare	**Give an account of the similarities between two (or more) items or situations, referring to both (all) of them throughout.**

Compare and contrast	**Give an account of the similarities and differences between two (or more) items or situations, referring to both (all) of them throughout.**
Construct	**Display information in a diagrammatic or logical form.**
Contrast	**Give an account of the differences between two (or more) items or situations, referring to both (all) of them throughout.**
Deduce	**Reach a conclusion from the information given.**
Demonstrate	**Make clear by reasoning or evidence, illustrating with examples or practical application.**
Describe	**Give a detailed account.**
Determine	**Obtain the only possible answer.**
Differentiate	**Obtain the derivative of a function.**
Distinguish	**Make clear the differences between two or more concepts or items.**
Draw	**Represent by means of a labelled, accurate diagram or graph, using a pencil. A ruler (straight edge) should be used for straight lines. Diagrams should be drawn to scale. Graphs should have points correctly plotted (if appropriate) and joined in a straight line or smooth curve.**
Estimate	**Obtain an approximate value.**
Explain	**Give a detailed account, including reasons or causes.**
Find	**Obtain an answer, showing relevant stages in the working.**
Hence	**Use the preceding work to obtain the required result.**
Hence or otherwise	**It is suggested that the preceding work is used, but other methods could also receive credit.**
Identify	**Provide an answer from a number of possibilities.**

Subject: Visual Arts, HL

Syllabus Outline:

Content Taught in Grade 11

Component	Syllabus out line
1) Comparative Studies	1) Developing subject specific language. 2) Exploring History of Art in brief. 3) Conducting a Mini Comparative task.(teacher guided)
2) Process Portfolio	1) Learning and Exploring 2D, 3D, lens based mediums etc for creating works of art. (mark making) 2) Maintaining a process journal, with concepts, contexts, inspirations, planning, reflection, etc.

3) Exhibition	1) Making coherent works of art for a mini-exhibition, with mini curatorial rationale and exhibition text.

Content Taught in Grade 12

Component	Syllabus out line
1) Comparative Studies	1) A detailed and research oriented Comparative Study task, taken up by choosing own preferred artists and their works of art, meeting all the criteria, followed by works of art inspired by the research. 2) 13-15 screen shots of comparative studies. 3) 3-5 screen shots of influence on own art making practice.
2) Process Portfolio	1) Exploring media and techniques to create coherent works of art.(thematic/stylised) 2) Maintaining a process journal, with concepts, contexts, inspirations, planning, reflection, etc. 3) Compiling the Process Portfolio. 4) 18 to 25 screen shots .
3) Exhibition	1) Making coherent works of art for the Final submission, with curatorial rationale and exhibition text. 2) 8-11 works of art. 3) 700 word curatorial rationale. 4) 500 character exhibition text.

Assessment Outline:

Assessment Component	Weighting
External assessment	
Component 1) Comparative studies	**20%**
Component 2) Process Portfolio	**40%**
Internal assessment	
Component 3) Exhibition	**40%**

Skills:

Through this course students should learn not only about visual arts from a variety of cultural contexts, but also about the importance of making their own practical work with integrity, informed by theory and research, with an awareness of the impact their work and ideas may have on the world. In order to achieve the learning outcomes of this course, students will need a strong grasp of specific skills. An explanation of their importance is given below.

Art making skills:

The students are required to explore and learn various media, processes and techniques, to create meaningful works of art.

They will explore:

2Dimensional forms like drawing, painting, graphics, etc.

3Dimensional forms like clay modelling, wire sculpture, assemblage, mural, installation, etc.

Dyeing techniques like Tie and Dye, Batik.

Lens based, electronic and screen based forms like Photography, stop motion animation, software generated work of art, etc.

They will develop subject specific language to describe the works of art.

Critical approaches

As part of developing independent artistic judgment, students need to have some knowledge of the methodology involved in studying Visual Art. They need to study the art created in various times, contexts and movements, to be able to compare, contrast, critique and make personal connections and judgements. They should be able to use Critical methodologies- like using Marxist or Feminist approaches, Formal analyses, Contextual analyses, Freudian approaches, to compare and contrast works of art.

Artistic conventions

The term Artistic conventions can be represented as tools or genres that artists use to convey meaning in their works of art, and create aesthetic value.

External Assessment

Component	Part of Syllabus	Assessment Criteria	Marks	Total Marks
Comparative Studies		A Analysis of formal qualities B Interpretation of function	6 6	

		and purpose C Evaluation of cultural significance D Making comparisons and connections E Presentation and subject-specific language	6 6 6	42
		F For HL only Making connections to own art- making practice	12	
Process portfolio		A- Skills, techniques and processes	12	
		B-Critical investigation	6	
		C- Communication of ideas and intentions	6	
		D- Reviewing, refining and reflecting	6	42
		E- Presentation and subject specific language.	4	

Internal Assessment

Component	Part of Syllabus	Assessment Criteria	Marks	Total Marks
Exhibition		A- Coherent body of works	9	
		B- Technical competence	9	
		C- Conceptual qualities	9	
		D- Curatorial practices.	3	30

May 2016 Grade Boundaries: Grade boundaries will be updated after the IB releases the grade boundaries of the new Visual Art course, first exams, 2016.

Subject: Visual Arts, SL

Syllabus Outline:

Content Taught in Grade 11

Component	Syllabus outline
1 Comparative Studies	1) Developing subject specific language. 2) Exploring History of Art in brief. 3) Conducting a Mini Comparative task.(teacher guided)
2 Process Portfolio	1) Learning and Exploring 2D, 3D, lens based mediums etc for creating works of art. (mark making) 2)Maintaining a process journal, with concepts, contexts, inspirations, planning, reflection, etc.

3 Exhibition	1) Making coherent works of art for a mini-exhibition, with mini curatorial rationale and exhibition text.

Content Taught in Grade 12

Component	Syllabus outline
1) Comparative Studies	1) A detailed and research oriented Comparative Study task, taken up by choosing own preferred artists and their works of art, meeting all the criteria, followed by works of art inspired by the research. 2) 13-15 screen shots of comparative studies.
2) Process Portfolio	1) Exploring media and techniques to create coherent works of art.(thematic/stylised) 2) Maintaining a process journal, with concepts, contexts, inspirations, planning, reflection, etc. 3) Compiling the Process Portfolio. 4) 12to 19 screen shots.
3) Exhibition	1) Making coherent works of art for the Final submission, with curatorial rationale and exhibition text. 2) 4-7 works of art. 3) 400 word curatorial rationale. 4) 500 character exhibition text.

Skills:

Through this course students should learn not only about visual arts from a variety of cultural contexts, but also about the importance of making their own practical work with integrity, informed by theory and research, with an awareness of the impact their work and ideas may have on the world. In order to achieve the learning outcomes of this course, students will need a strong grasp of specific skills. An explanation of their importance is given below.

Art making skills:

The students are required to explore and learn various media, processes and techniques, to create meaningful works of art.

They will explore:

2Dimensional forms like drawing, painting, graphics, etc.

3Dimensional forms like clay modelling, wire sculpture, assemblage, mural, installation, etc.

Dyeing techniques like Tie and Dye, Batik.

Lens based, electronic and screen based forms like Photography, stop motion animation, software generated work of art, etc.

They will develop subject specific language to describe the works of art.

Critical approaches

As part of developing independent artistic judgment, students need to have some knowledge of the methodology involved in studying Visual Art. They need to study the art created in various times, contexts and movements, to be able to compare, contrast, critique and make personal connections and judgements. They should be able to use Critical methodologies- like using Marxist or Feminist approaches, Formal analyses, Contextual analyses, Freudian approaches, to compare and contrast works of art.

Artistic conventions

The term Artistic conventions can be represented as tools or genres that artists use to convey meaning in their works of art, and create aesthetic value.

Assessment Outline:

Assessment Component	Weighting
External assessment	
Component 1) Comparative studies	**20%**
Component 2) Process Portfolio	**40%**
Internal assessment	
Component 3) Exhibition	**40%**

External Assessment

Component	Part of Syllabus	Assessment Criteria	Marks	Total Marks
Comparative Studies		A Analysis of formal qualities	6	
		B Interpretation of function	6	

		and purpose C Evaluation of cultural significance D Making comparisons and connections E Presentation and subject-specific language	6 6 6	42
Process portfolio		A- Skills, techniques and processes	12	
		B-Critical investigation	6	
		C- Communication of ideas and intentions	6	
		D- Reviewing, refining and reflecting	6	42
		E- Presentation and subject specific language.	4	

Internal Assessment

Component	Part of Syllabus	Assessment Criteria	Marks	Total Marks
Exhibition		A- Coherent body of works	9	
		B- Technical competence	9	
		C- Conceptual qualities	9	
		D- Curatorial practices.	3	30

May 2016 Grade Boundaries: Grade boundaries will be updated after the IB releases the grade boundaries of the new Visual Art course, first exams, 2016.

IA Deadline Calendar

The school has created an IA deadline calendar to help students complete their Course Work/IA in an organized manner. ―Draft‖ in the Calendar refers to work that is close to the required word count and complete with adherence to the prescribed research methodology (the work should be appropriately referenced and cited). Students who anticipate having difficulty meeting a deadline must consult their subject teacher well before the due date to discuss strategies which will allow them to meet the deadlines. If a student is absent on the day of submission, he or she must mail the assignment with an intimation to the coordinator. Students must strictly adhere to the deadlines. Work submitted beyond the deadline will not be accepted.

IBDP DEADLINE CALENDAR 2018 - 2020

Subject	Deadline
English A Literature IOP	12th to 14th December 2018
Economics Commentary - 1	11th January 2019
First Draft of English A Written Assignment SL	7th March 2019
First Draft of English A Written Assignment HL	15th May 2019
Psychology experiments	16th July to 20th July 2019
Hindi Interactive Oral Activity (IOA) 1	9th July to 13th July 2019
EE - Initial Interaction	16th July 2019
Economics Commentary - 2	9th April 2019
Final Submission for English A Written Assignment HL	15th of July 2019
Final Submission for English A Written Assignment SL	15th of July 2019
Visual Arts: Comparative studies First draft	21st August 2019
Hindi Interactive Oral Activity (IOA) 2	6th & 7th August 2019
Psychology IA reports First draft submission	20th August 2019
EE - Interim Interaction	17th September 2019
Economics Commentary - 3	17th September 2019
Psychology Final IA Report Submission	10th October 2019
History IA First draft	13th October 2019
Business Management IA - First Draft	5th October 2019
Hindi Interactive Oral Activity (IOA) 3	12Th October 2019
Physics Individual investigation first draft	3rd October 2019
Selection of Math Exploration Topic & Project	15th September 2019
ESS Individual investigation first draft	8th October 2019
Chemistry Individual Investigation first Draft	9th October 2019
Chemistry Individual Investigation Final Submission	20th December 2019
EE - First Draft	15th October 2019
Visual Arts: Process Portfolio: 1st draft	31st October,2019
Biology Individual Investigation first draft.	20th November 2019
Biology Individual Investigation final submission	5th January 2020
Physics IA final draft	15th November 2019
EE - Final Submission	19th November 2019
TOK Essay First draft	22nd November 2019
History IA Final Submission	24th November 2019
TOK mock presentation	20th November - 1st December 2019
Computer Science IA First Draft	30th November - 2019
EE - Viva Voce - Final Interaction	3rd December 2019 onwards

ESS Individual investigation final submission	3rd December 2019
Computer Science IA Final Submission	20th December 2019
Math IA First Draft(HL/SL/Studies)	30th November 2019
Economics Commentary - 4	17th December 2019
TOK Essay Final Submission	19th January 2020
Visual Art : Comparative Studies and Process Portfolio Final submission	8th January 2020
Business Management - IA Final Submission	28th January 2020
Hindi-Individual Oral (Final)	7th January - 10th January 2020
English A IOC	14th January - 18th January 2020
Math IA Final Submission (HL/SL/Studies)	30th January 2020
TOK Final presentation	5th February - 12th February 2020
French B Individual Oral	19th February - 28th February 2020
Visual Art Exhibition	27th and 28th February, 2020, or on the availability of art gallery.

School Policies and Handbooks

The school has the below mentioned Policies and Handbooks. They are accessible to the school community on Managebac. Kindly find the time to go through them

1. Academic Honesty Policy
2. Language Policy
3. Assessment Policy
4. Special Education Needs Policy
5. Child Protection Policy
6. IT Policy
7. IBDP Handbook
8. EE Handbook for Batch of 2017
9. EE Handbook for Batch of 2018
10. CAS Handbook
11. University Placement Handbook

References:

1. IBDP Handbook of Procedures
2. TOK Guide
3. EE Guide
4. CAS Guide
5. Award of Diploma and Failing Conditions

Information Directory

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