
IB Diploma Programme Course Guide 2011-13



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Grades 11 and 12: International Baccalaureate (IB) Diploma, Certificates and the LIS High School Diploma

In Grades 11 and 12 students may enrol in the IB Diploma or Certificates Programme or aim to graduate with the High School Diploma.

Applicants for the IB Diploma Programme need to have obtained either the ICE Merit Diploma, or Gymnasium Grade 10, or the Realschulabschluss. Their English has to be at the Common European Reference Framework (CERF) B2 level or better. We recommend that students taking a course at Higher Level (HL) have a B or above in that subject at IGCSE. For Standard Level courses we recommend that students have a C or above at IGCSE.

LIS High School Diploma

The LIS High School Diploma is similar to an American High School Diploma and recognises the satisfactory completion of four years of secondary schooling (Grades 9-12), spending at least Grade 12 at the Leipzig International School and fulfilling the credit requirements as shown below. It meets the entry requirements of colleges and universities in the United States of America as well as other countries. All programmes of study offered at the Leipzig International School contribute through a system of credits towards this Diploma.

The LIS High School Diploma credits are awarded in Grades 11 and 12 for the successful completion of our IB SL (and HL) courses.

Subject Area	Years (minimum)	Credit
English	4	4
Mathematics	2	2
Social Studies	2	2
Experimental Science	2	2
Second Language	2	2
Visual Arts	1	1
Physical Education	1	1
Additional Options	-	6

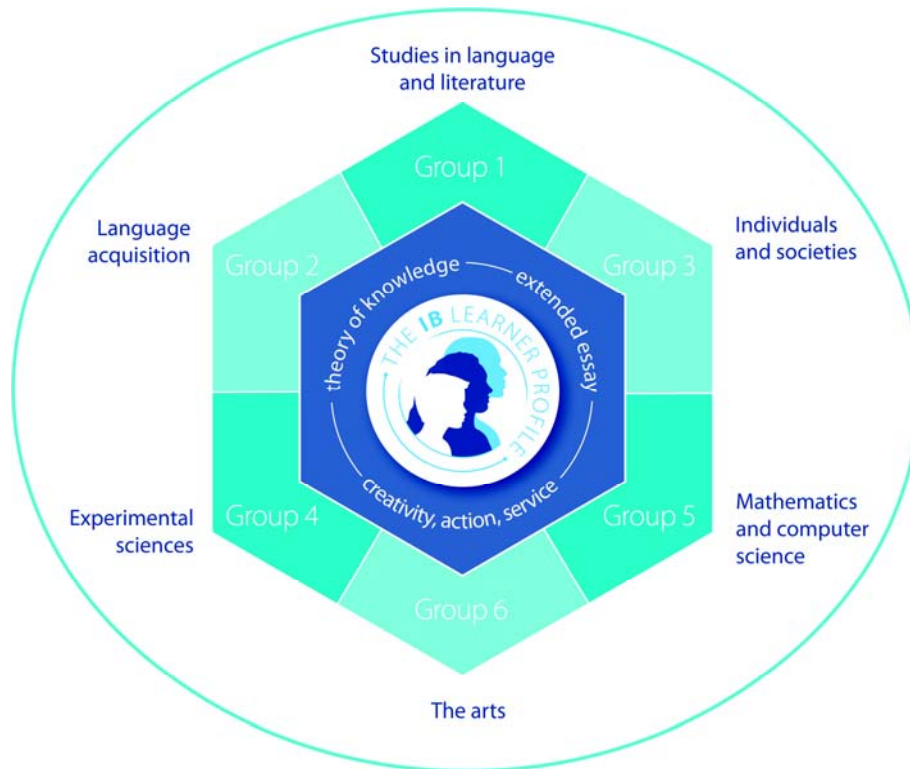
In addition to the course requirements students are expected to have:

- contributed to the CAS programme
- have completed the Theory of Knowledge course.

The minimum requirement for a LIS High School Diploma is 20 units of credit.

The IB Diploma and Certificates

The International Baccalaureate Diploma is a rigorous pre-university course of studies leading to examinations set by IBO that meets the needs of **highly motivated** secondary school students in the last two years of their secondary education.



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The diploma curriculum is displayed in the shape of a hexagon with six academic areas (subject groupings) surrounding the core. Subjects are studied concurrently and students are exposed to the two great traditions of learning: the humanities and the sciences.

Diploma candidates are required to select one subject from each of the six subject groups. Three of these subjects are taken at Higher Level (HL) and three at Standard Level (SL). By arranging work in this fashion, students are able to explore some subjects in great depth and some more broadly over the two-year period for which the programme runs.

Subject distribution requirements ensure that the science-oriented student is challenged to learn a foreign language and that the natural linguist becomes familiar with laboratory procedures. While overall balance is maintained, a degree of flexibility in choosing higher level courses allows the student to pursue areas of personal interest and to meet special requirements for university entrance.

Subjects can be taken as individual certificates at SL or HL if they do not require the Diploma for admission to their next educational institution or vocational training provider.

The Core Components of the IB Diploma

The programme offers the following special features in addition to the traditional strengths of a liberal arts curriculum.

- **Theory of Knowledge (ToK) course**

This is a required interdisciplinary course intended to stimulate critical reflection upon knowledge frameworks and experience gained inside and outside the classroom. ToK challenges students to question how we acquire knowledge as well as the bases of knowledge, to become critically aware of subjective cultural and ideological biases and to develop a coherent approach to learning which transcends and unifies the academic subjects. ToK encourages an appreciation of cultural perspectives and international mindedness and culminates in two assessment pieces; an oral presentation and an essay.

- **The Extended Essay (EE)**

Diploma candidates are required to undertake original research and write an extended essay of some 4000 words. This process of a systematic investigation in one subject area or as of 2011 in the new Interdisciplinary World Studies Extended Essay offers students the opportunity to investigate a Research Question (RQ) of special interest and acquaints students with the kind of independent research and writing skills expected at university level. Students are supported through this process by an extended essay supervisor. The process takes place over a 13 month period between DP 1 and DP 2.

The combination of ToK and the Extended Essay allows a potential 3 extra IB points to be awarded.

- **Creativity, Action and Service (CAS)**

This is a fundamental and required part of the diploma curriculum. The CAS requirement takes seriously the importance of life outside the world of scholarship, providing a refreshing counterbalance to the academic self-absorption some may feel within a demanding school programme. It is expected that students involved in service learning and creative projects will learn to become proactive in raising awareness of local and global issues.

Each student's performance is measured against well-defined levels of achievement consistent from one examination session to the next. Top grades are not simply awarded "on a curve" to a certain percentage of candidates but rather reflect attainment of knowledge and skills relative to set standards equally applied to all authorised schools.

The Subjects for the IB Diploma

(available as Certificates and High School Diploma Courses)

At LIS we currently offer the following IB courses:

Group 1 Language A	
English	Language and Literature HL
English	Language and Literature SL
German	Language and Literature HL
German	Language and Literature SL
English	Literature HL
English	Literature SL
German	Literature HL
German	Literature SL
Self Taught	Language A1 SL
Group 2 Language B / Ab Initio	
German B	HL
German B	SL
German Ab Initio	SL
Spanish Ab Initio	SL
French B	HL
French B	SL
Spanish B	SL
Group 3 Individuals and Societies	
History HL	Geography HL
History SL	Geography SL
Group 4 Experimental Sciences	
Biology HL	Physics HL
Biology SL	Physics SL
Chemistry HL	
Chemistry SL	
Group 5 Mathematics	
Mathematical Studies	SL
Mathematics	SL
Mathematics	HL
Group 6 The Arts or Electives	
Art	SL
Art	HL
or	
Electives from the above	

Students who follow two Languages as 'A' courses and who successfully complete the Diploma Programme will be awarded a bilingual diploma.

With the exception of the languages all subjects are taught in English.

Higher level subjects are timetabled 6 x 40 minutes per week. Standard level subjects are timetabled 4 x 40 minutes per week. In addition, the timetable has 2 periods of Theory of Knowledge, 1 period for CAS and 2 periods Pastoral Time with the Form Tutor.

Examination Fees

External Examination Fees are charged by the IBO. The fees are not included in the LIS tuition fees. After the final registration deadline in November of Grade 12, candidates will be invoiced.

The following table is a guideline to the examination fees levied by the IBO:

Registration Fee per Candidate	\$ 145
Subject Fee per Subject (including ToK and EE)	\$ 100

Examinations

The school enters candidates for the May examination session only and does not offer November examinations or retakes.

Examinations take place from May to June of the final year and may affect public holidays.

Candidates are expected to comply with the *General Regulations of the Diploma Programme*, the policy on *Academic Honesty* and the *Notice to Candidates Notifications* published by the IBO.

Contact

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Assessing Student Work

A variety of assessment methods are used to value both the content and process of academic achievement and to take into account different learning styles and cultural patterns. Conventional external examination techniques are chosen from a range of options: oral and written, long and short responses, data-based questions, essays, multiple choice questions. These are complemented by internal assessment of coursework by the teachers responsible for evaluating over a two-year period. Details of the specific assessment requirements for each course can be found under the subject headings.

Award of the Diploma

In the six subject groups, each examined subject is graded on the following scale of 1 (minimum) to 7 (maximum):

7	Excellent
6	Very Good
5	Good
4	Satisfactory
3	Mediocre
2	Poor
1	Very Poor

The award of the diploma requires students to meet defined standards and conditions including a minimum total of 24 points and the satisfactory completion of the Extended Essay, Theory of Knowledge course and CAS activities. The maximum score of 45 points includes the maximum of three additional points that can be awarded for the level of performance in the Extended Essay and Theory of Knowledge.

All LIS Grade 11 and 12 students are normally engaged in the full diploma programme. Any students who are unable to satisfy all requirements, or who are advised to, or who choose to take examinations in fewer than six subjects, are awarded separate IB Certificates for the examinations completed.

University Admissions and Careers

The IB Diploma is recognised as an university entrance qualification throughout the UK and in many US universities. Since 2004 the IBO has an agreement with the German ministries of education to accept the IB as a foreign qualification. This means that German residents can use their IB diploma to gain a **Hochschulzugangsberechtigung**, which enables them to apply for study in Germany. New regulations announced in 2011 mean that students need to have at least one foreign language at Language A level.

We currently have graduates at German, British, US, Dutch and other universities, and here at LIS we offer assistance on how to get into the German, British and US university systems. The University Admissions Advisor is Mr. Justin Sands.

The United Kingdom

Admissions are done centrally through UCAS (www.ucas.com) and students have five choices. The IB subject choices are as important as the overall grade. Students thinking of studying medicine **must** opt for Chemistry and another science at Higher Level. Those interested in Business should opt for languages and History at Higher Level and so on. Students should speak to the University Admissions Officer for more advice. UK universities are also interested in CAS and Extended Essay so it helps to make them relevant to what you want to study.

The United States

Many US universities accept the IB diploma directly as a university entrance qualification but most still require SATs. If you do not have them you will need to sit them sometime in Grade 11 (nearest test centre is the JFK Schule in Berlin). US universities are also interested in particular subjects as well as CAS and Extended Essay. While language tests for non-native speakers are rare for the UK (A1/A2 English is seen as proof enough), some US universities will require proof of English (e.g. TOEFL) to accompany the application. Study in the US is expensive: you should not consider applying unless you have the financial means to study there.

Germany

German universities require a **Hochschulzugangsberechtigung** (HZB) for admission to study and entry into courses is based on a numerus clausus (NC), an average grade. The HZB will only be issued to students with the IB diploma and HL maths or science. The HZB has more stringent pass requirements than the IB Diploma ([more information on next page](#)). German nationals must do A1/A2 German and non-natives are required to take a language test.

The actual application process will take place in Grade 12 but Grade 11 students will be given in-depth introductions to the various university systems. They will also be given careers guidance both in the form of classroom presentations and one-on-one meetings.

Useful Websites

www.ibo.org/country/DE/index.cfm

www.ucas.com

www.collegeboard.com

www.arbeitsagentur.de

www.zvs.de

www.studienwahl.de

Additional Information on German Recognition of the IB Diploma

Agreement on the recognition of the "International Baccalaureate Diploma /Diplôme du Baccalauréat International

(Resolution of the Conference of Ministers of Education of 10.03. 1986, as amended on 18.11.2004)

1. An International Baccalaureate Diploma/Diplôme du Baccalauréat International issued in accordance with the regulations of the "International Baccalaureate Organization/Office du Baccalauréat International" shall be recognised as valid for university admission, if it has been obtained after attending at least twelve years of full-time education, and if the following requirements are met:

- a) The six examination subjects taken for the "International Baccalaureate Diploma/Diplôme du Baccalauréat International" (IB) must conform to IB conditions:
 - two languages (one of which at least must be a foreign language studied uninterruptedly as "Language A"),
 - one natural science subject (Biology, Chemistry, Physics),
 - Mathematics (Mathematical Methods or Mathematics HL or Further Mathematics together with Mathematics HL)
 - One social science subject (History, Geography, Economics).

The sixth compulsory subject may be one of the above or one of the following subjects recognised by the IB:

- Art/Design, Music, Theatre Arts; another modern foreign language; Latin, Classical Greek; General Chemistry, Applied Chemistry, Environmental Systems, Computer Science, Design Technology; Philosophy, Psychology, Social Anthropology, Business and Organisation.
- b) One of the three subjects to be taken at higher level for the "International Baccalaureate Diploma/Diplôme du Baccalauréat International", must be Mathematics or a Natural Science subject such as Biology, Chemistry or Physics.
 - c) All subjects must have been taken uninterruptedly up to the end of the school career.
 - d) Candidates must earn a minimum IB Grade of 4 on the six compulsory subjects.

Where an IB grade of 3 is awarded in one subject only, it is possible to compensate for this if another subject taken at the same level has been awarded at least an IB Grade 5, and an aggregate of 24 points has been attained.

- e) German diploma holders, who have attended a school abroad not providing German courses, must supply proof of competence in German before being accepted for higher studies; such details are defined by the regulations in force in the relevant Federal State.
2. In the event of failure to comply with the conditions referred to in Section 1, recognition of entitlement to university entrance shall be conditional on passing an additional examination. Germans who have acquired the "International Baccalaureate Diploma/Diplôme du Baccalauréat International" must pass an entrance examination in accordance with the "Principles Governing Access of University Applicants of German nationality who have gained

a secondary school graduation certificate from a foreign country" (Resolution of the Conference of Ministers of Education of the 26.01.1996 in its amended form). Foreign nationals must pass an assessment examination according to the "General Regulations for Foreign Applicants concerning Education in Special Secondary and for the Assessment Examination" (Resolution of the Conference of Ministers of Education of 15.4.1994 as amended).

Recognition as university entrance qualification is also obtained by one successful university year in a country whose school-leaving certificates are recognized for direct access to university or after one successful university year.

Ref: Ministry of Education 2011

IB total points	Durchschnittsnote
45	1.0
44	1.0
43	1.0
42	1.0
41	1.1
40	1.3
39	1.5
38	1.6
37	1.8
36	2.0
35	2.1
34	2.3
33	2.5
32	2.6
31	2.8
30	3.0
29	3.1
28	3.3
27	3.5
26	3.6
25	3.8
24	4.0

Core Diploma Requirements

Theory of Knowledge

Extended Essay

Creativity, Action and Service (CAS)

Theory of Knowledge (ToK)

In addition to the six subjects selected, Diploma candidates must also engage in a unique course known as Theory of Knowledge.

Introduction and Aims

Theory of Knowledge is all about examining the peculiar difficulties that we face as knowers in the different areas in which human beings make claims to having something they call “knowledge”, and which they distinguish (with all the attendant difficulties!) from other notions such as guesses, hunches, opinions and so on.

ToK is the key element in the educational philosophy of the IBO. Its purpose is to stimulate critical reflection upon the knowledge and experiences acquired both inside and outside the classroom, to evaluate the bases of knowledge and experience, and to develop a personal mode of thought based on critical examination of evidence and argument.

Structure and Content

The course consists of analyses of:

- the knower
- ways of knowing: perception, emotion, reason and language
- areas of knowing: Arts, Humanities, Sciences, Mathematics and Ethics
- knowledge, belief, opinion and propaganda

Assessment

Presentation – assessed internally by a panel of ToK teachers

Each candidate must make one or more individual and/or small group oral presentation to the class during the course (currently done in February of grade 12), and complete a self-evaluation report. The presentation topic is chosen by the student or small group and should be an integral part of the Theory of Knowledge course.

Essay – assessed externally

Each student must submit for assessment one essay of at least 1200 words, but not exceeding 1600 words. The essay must be on one of the ten titles prescribed by the IBO for the examination session. Essays are assessed against the original title, so students must not modify the title. If essays are submitted that are not on a prescribed title, they will receive no marks.

Student performance in the course is graded using the following IBO scale:

A	Excellent
B	Good
C	Satisfactory
D	Mediocre
E	Elementary

The Extended Essay (EE)

Introduction and Aims

Diploma candidates are required to undertake original research and write an essay of some 4000 words. This project offers the opportunity to investigate a topic of special interest and acquaints students with the kind of independent research and writing skills they will require in the worlds of higher education and work.

The subject chosen for the essay does not have to be one of the subjects being studied by the student for the diploma, but it should be a subject about which the student already has an interest or that they think can be relatively easily researched, given the resources to be found in and near the school. In practice it is usually the case that the large majority of subjects chosen are amongst those being studied for the diploma. Such choices are often easier to manage and have beneficial side effects in supporting the student's overall effort in the chosen subject.

Students will each have a teacher acting as supervisor, to ensure that they are remaining "on target" and it is expected that a total of about 40 hours be spent on the essay project. Supervisors are allocated on the basis of approaches from students who have come up with their basic idea. It is not practical for a given teacher to supervise more than a maximum of three extended essays in the same period and so it is occasionally necessary to turn down a student request and ask for an alternative topic to be chosen, in a subject area that still has supervision capacity.

Assessment

The extended essay is externally assessed.

Student performance in the essay is graded using the following IBO scale:

A	Excellent
B	Good
C	Satisfactory
D	Mediocre
E	Elementary

The stages in the development of a final draft of the essay are reached according to the following timetable (more specific deadlines will be published at a later date):

In Grade 11:

November	Extended Essay begins
January	Subject and Topic focus decided
March	Research, Bibliography and Preliminary Outline
April/May	Rough draft of essay
June	First draft of essay

In Grade 12:

August	Completed draft
December	Final draft

Creativity, Action and Service (CAS)

Introduction and Aims

All IB Diploma Programme candidates (including those who may be following a separate certificates programme) are required to participate in a variety of extra-curricular activities in the areas of Creativity, Action and Service. The aim of the CAS programme is to challenge the individual student, develop self-confidence and a spirit of self-reliance and above all, inspire a sense of responsibility towards the local and international communities.

The three elements of CAS

1. Creativity

All kinds of arts including music, art, creative writing, drama, photography, etc., designing and carrying out projects.

2. Action

Physical recreation and sports (both team and individual), service activities requiring a good deal of action and initiative on the part of the student.

3. Service

Community service (inside and outside the school), environmental and international projects.

Structure and Content

Students are expected to be involved for the equivalent of at least 3 to 4 hours per week over the two years of the Diploma Programme in a balanced range of activities. Some activities may occur within the school's normal schedule.

Students receive guidance in designing their own programme based on individual interests and needs. While there is an emphasis on service, creativity and action should play an equal part in the programme.

For students graduating from 2010 onwards, it is important that they initiated their own project, acted as its team leader and also got involved in global issues.

CAS should involve

- real, purposeful activities
- personal challenge
- thoughtful consideration, such as planning, reviewing process and reporting
- reflection on outcomes and personal learning

All proposed CAS activities need to meet these four criteria.

Eight Learning Outcomes

There should be evidence that students have

1. increased their awareness of their own strengths and areas for growth;
2. undertaken new challenges;
3. planned and initiated activities (initiated by students themselves! Other activities may be initiated by the school);
4. worked collaboratively with others (e.g. one project involving teamwork);
5. shown perseverance and commitment in their activities;
6. engaged with issues of global importance;
7. considered the ethical implications of their actions;
8. developed new skills.

Recommendation

- 3-4 hours per week
- 150 hours minimum
- Reasonable balance between creativity, action and service

Assessment

There is no actual grading but failure to fulfil the requirements will normally result in the IB Diploma not being awarded.

An evaluation by the activity supervisor and a self-evaluation by the student are required for each activity undertaken. The student's self-evaluation is in the form of comments made in a CAS journal. In addition, comments on progress in CAS are made in the student's school reports issued in Grades 11 and 12.

A final reflective essay on the CAS experience must be submitted towards the end of Grade 12.

Comments on the student's CAS commitment, personal growth and development over the two years will be included in references and testimonials.

Theory of Knowledge and the Extended Essay - IB Diploma Bonus Points

The performance of a student in both IB Diploma requirements, Theory of Knowledge and the Extended Essay, is determined according to the quality of work, based on the application of the IB assessment criteria. It is described by one of the band descriptors A-E (see below). Using the **two** performance levels and the Diploma Points Matrix (see below), a maximum of **three** Diploma points can be awarded for a student's combined performance.

Band Descriptors

- A** Work of an **excellent** standard
- B** Work of a **good** standard
- C** Work of a **satisfactory** standard
- D** Work of a **mediocre** standard
- E** Work of an **elementary** standard

The Diploma Points Matrix

		THEORY OF KNOWLEDGE					
		Excellent A	Good B	Satisfactory C	Mediocre D	Elementary E	Not Submitted
EXTENDED ESSAY	Excellent A	+3	+3	+2	+2	+1 or F*	N
	Good B	+3	+2	+1	+1	F	N
	Satisfactory C	+2	+1	+1	0	F	N
	Mediocre D	+2	+1	0	0	F	N
	Elementary E	+1 or F*	F	F	F	F	N
	Not Submitted	N	N	N	N	N	N

F* From 2010 onwards, an 'E' grade in either the **Extended Essay or Theory of Knowledge** will mean that, rather than the usual 24 points required to gain the IB Diploma, the student will need 28 points in total.

A student who, for example, writes a **satisfactory** Extended Essay and whose performance in Theory of Knowledge is judged to be **good** will be awarded 1 point, while a student who writes a **mediocre** Extended Essay and whose performance in Theory of Knowledge is judged to be **excellent** will be awarded 2 points.

A student who fails to submit an Extended Essay will be awarded N for Extended Essay and/or a student who fails to submit a ToK essay, or who fails to make a TOK presentation, will be awarded N for ToK, will score no bonus points, and will not be awarded an IB Diploma.

Performance in both Theory of Knowledge and the Extended Essay of an **elementary** standard is a failing condition for the award of the Diploma. In this situation a student will receive IB Certificates in the subjects where assessment objectives have been completed and attained.

Group 1
Language A

English Language and Literature

English Literature

German Language and Literature

German Literature

Language A: Language and Literature

English and German

Introduction

For the majority of LIS students either English or German will be their best language, in that they will have native or near-native command of the language. It is therefore possible for many students to follow A courses in both these languages and, if successful, qualify for a bilingual IB Diploma.

Language A: language and literature subject outline 1

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

Aims

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

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

There are no formal requirements for students undertaking the group 1 courses. Students who take these courses will often have varied language profiles and may be multilingual. While it is recommended that students have had experience of writing critical essays about texts, not having done so should not exclude them from studying language A.

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

Part 4: Literature—critical study

SL: Two texts, both of which are chosen from the prescribed list of authors (PLA) for the language A studied.

HL: Three texts, all of which are chosen from the prescribed list of authors (PLA) for the language A studied.

Assessment

1. External assessment (3 hours) 70%

Paper 1: Textual analysis (1 hour 30 minutes)

The paper consists of two unseen texts.

Students write an analysis of one of these texts. (20 marks)

25%

Paper 2: Essay (1 hour 30 minutes)

In response to one of six questions students write an essay based on both the literary texts studied in part 3. The questions are the same at HL but the assessment criteria are different. (25 marks)

25%

Written task

Students produce at least three written tasks based on material studied in the course.

Students submit one written task for external assessment. (20 marks)

This task must be 800–1,000 words in length plus a rationale of 200–300 words.

20%

2. Internal assessment 30%

This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.

Individual oral commentary

Students comment on an extract from a literary text studied in part 4 of the course.

(30 marks)

Students are given two guiding questions.

15%

Further oral activity

Students complete at least two further oral activities, one based on part 1 and one based on part 2 of the course.

The mark of one further oral activity is submitted for final assessment. (30 marks).

15%

Language A: Literature

English and German

Language A: literature is a literature course that may be studied in as many as eighty languages. Fifty of these have a prescribed list of authors

Language A: literature is the subject through which the IB's policy of mother-tongue entitlement is delivered. This subject promotes respect for the literary heritage of the student's home language and provides an opportunity for students to continue to develop oral and written skills in their mother tongue while studying in a different language of instruction, transcription and/or in another recording.

The course is built on the assumption that literature is concerned with our conceptions, interpretations and experiences of the world. The study of literature can therefore be seen as an exploration of the way it represents the complex pursuits, anxieties, joys and fears to which human beings are exposed in the daily business of living. It enables an exploration of one of the more enduring fields of human creativity, and provides opportunities for encouraging independent, original, critical and clear thinking. It also promotes respect for the imagination and a perceptive approach to the understanding and interpretation of literary works.

Through the study of a wide range of literature, the language A: literature course encourages students to appreciate the artistry of literature and to develop an ability to reflect critically on their reading. Works are studied in their literary and cultural contexts, through close study of individual texts and passages, and by considering a range of critical approaches. In view of the international nature of the IB and its commitment to intercultural understanding, the language A: literature course does not limit the study of works to the products of one culture or the cultures covered by any one language. The study of works in translation is especially important in introducing students, through literature, to other cultural perspectives. The response to the study of literature is through oral and written communication, thus enabling students to develop and refine their command of language.

Part 1: Works in translation

Part 2: Detailed study

Part 3: Literary genres

Part 4: Options (in which works are freely chosen)

Assessment

1. 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%

2. Internal assessment 30%

This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.

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%

Group 2
Language B and Ab Initio

French B HL

French B SL

German B HL

German B SL

German Ab Initio SL

Spanish Ab Initio SL

German and French B, German and Spanish Ab Initio

Introduction

The Language B courses are designed for students with a high level of competence in the target language. Such bilingual students are often capable of studying both their languages as language A, but do not always wish to study two languages at A level. The Ab Initio courses are for beginners wishing to learn a new language.

Aims

The language B course is a foreign language learning programme designed for study by students with previous experience of learning the language. The main focus of the programme is on language acquisition and development to prepare the learner to use the language appropriately in a range of situations and contexts and for a variety of purposes. At the end of the course Language B students should have reached the level C1 of the Common European Framework of Reference for Languages (CEFR) and will be well prepared to take part in university admission tests (Test DaF/DSH) if they like.

German B HL and SL

Introduction

Whilst living in Germany, non-German students are presented with an ideal opportunity to learn the language. The social, academic and linguistic skills they develop during the course not only make their stay in Germany a more rewarding and pleasurable experience but are also of greater value after leaving school.

Structure and Content

The course is based around three key aspects:

- Acquisition and development of general language (materials: “em neu – Hauptkurs”, “em neu – Aufbaukurs”), moving from level B1/B2 to C1
- Literature and Film: working creatively with authentic literary texts (plays, short stories, narratives etc.), intercultural training on the basis of German films
- Academic language use (academic types of texts, learning/reading/writing strategies, language production: presentations, describing graphs and statistics, debating etc.)

Assessment

Paper 1	Text-handling exercises based on a number of written texts (externally assessed)	40%
Paper 2	One writing task from a choice of titles (externally assessed)	30%
Oral component	This component consists of four activities: Three interactive orals (internally assessed) One individual oral (externally assessed)	15% 15%

French B HL and SL

Introduction, Aims and Content

The language B French syllabus approaches the learning of language through meaning. Through the study of the core and the options at SL and HL, plus two literary works at HL, students build the necessary skills to reach the assessment objectives of the language B course through the expansion of their receptive, productive and interactive skills.

SL and HL are differentiated by the recommended number of teaching hours, the depth of syllabus coverage, the study of literature at HL, and the level of difficulty and demands of assessment and assessment criteria.

The core—with topics common to both levels—is divided into three areas and is a required area of study.

- Communication and media
- Global issues
- Social relationships

In addition, at both SL and HL, teachers select two from the following five options.

- Cultural diversity
- Customs and traditions
- Health
- Leisure
- Science and technology

Assessment

1. External assessment 70%

Paper 1 (1 hour 30 minutes)

Receptive skills

25%

Paper 2 (1 hour 30 minutes)

Written productive skills

25%

Written assignment

Receptive and written productive skills

20%

2. Internal assessment 30%

Internally assessed by the teacher and externally moderated by the IB.

Individual oral (8–10 minutes)

Based on the options: 15 minutes' preparation time and a 10-minute (maximum) presentation and discussion with the teacher.

20%

Interactive oral activity

Based on the core: three classroom activities assessed by the teacher.

10%

German Ab Initio SL

Introduction

The Ab Initio course is a foreign language programme designed for study over two years by students who have no previous experience of learning the target language.

Aims

The aims are to develop students' ability to communicate in speech and in writing in order to enable them to deal adequately with familiar and practical needs and to provide them with a foundation for further study of the target language. At the end of the course German AB-students should have reached the level B1 of the Common European Framework of Reference for Languages (CEFR).

Structure and Content

We are working basically with the challenging GSL-books "*Begegnungen A1+*", "*Begegnungen A2+*" and "*Begegnungen B1+*", but also with easy readers and authentic literary texts.

Assessment

Paper 1	Text-handling (externally assessed)	40%
Paper 2	Writing task (externally assessed)	30%
Oral component	This component consists of four activities: Three interactive orals (internally assessed) One individual oral (externally assessed)	15% 15%

Spanish Ab Initio SL

Introduction, Aims and Course Description

The Spanish Ab Initio programme is a foreign language learning programme designed to be studied over 2 years at standard level by students who **have no, or little, previous experience** of learning Spanish. Ab Initio meets the needs of students who have had little or no opportunity for foreign language learning in their earlier education or those who are interested in learning a new language as part of their IB diploma.

The Spanish Ab Initio programme is a two year course which provides students with the opportunity to achieve basic proficiency in reading, writing, listening and speaking. The main focus of this course is on the acquisition of Spanish for purposes and situations found in everyday social interaction. The course aims to develop a variety of linguistic skills, and a basic awareness of the cultures using the language, through the study of a core syllabus and a language-specific syllabus. To promote the development of communicative ability, this course integrates vocabulary and grammar in the four language skills: speaking, listening, reading and writing.

Throughout these two years, students learn to communicate ideas and exchange information pertaining to a variety of themes, such as the individual and society, health and education, travel and leisure, and personal interests. The lessons and activities promote learning at a comfortable pace and expose students to the art, culture and history of the Spanish language. Common activities include competitive games, role playing, and information gapping, all of which stress the importance of actively using the language to achieve goals.

Students work to achieve basic proficiency through a variety of activities which are interactive and require them to actively apply the language tools they have studied. In addition, students are given opportunities to use the language in context-based situations in class and outside the classroom as much as possible.

Apart from direct instruction in class, students are given exposure to the Spanish language through a variety of texts, audio and visual stimuli, interactive instructional websites, and technology-based programmes which individualise instruction and assessment and track the progress of each student at various levels of proficiency. Students communicate with each other in Spanish during activities focusing on particular grammatical or thematic areas.

The course prepares IB Diploma Programme and Certificate candidates for the internal and external examinations in the second year of the course.

Course Objectives

Listening - Students sustain understanding over brief, focused speech.

Students sustain understanding on a variety of topics pertaining to different times and places; however, the level of comprehension will be varied.

Speaking - Students can initiate, sustain, and close a basic conversation although errors can be present. Students will be able to use circumlocution to compensate for limited vocabulary.

Students begin to use connected discourse, particularly for simple narration or description.

Speakers can generally be understood, even by natives not accustomed to dealing with speakers at this level, although repetition may still be required.

Reading - Students grasp main ideas and information from texts featuring description and narration. Students begin to understand authentic material such as newspaper or magazine articles upon reading it more than once.

Writing - Students can take notes in some detail on familiar topics and respond in writing to personal questions. Students can write simple letters, brief synopses and paraphrases, summaries of biographical data, work and school experience. Students begin to describe and narrate in coherent paragraphs.

At the end of the course students should have reached the level A2/B1 of the Common European Framework of Reference for Languages (CEFR).

The language Ab Initio course is organized into three broad themes, all of which are well suited to fostering an international perspective:

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

Each theme has a list of topics that provide the students with opportunities to practise and explore the language as well as to develop intercultural understanding.

Prescribed Topics

Individual and Society	Leisure and Work	Urban and Rural Environment
Daily routines	Employment	Environmental concerns
Education	Entertainment	Global issues
Food and drink	Holidays	Neighbourhood
Personal details, appearance and character	Media	Physical geography
Physical health	Sport	Town and services
Relationships	Technology	Weather

Through the development of receptive, productive and interactive skills, students should be able to respond and interact appropriately in a defined range of everyday situations.

Course	Receptive Skills	Productive Skills	Interactive Skills
Spanish Ab Initio SL	<p>Understand, both orally and in writing, simple sentences and some more complex sentences related to the three themes and related topics.</p> <p>Understand simple authentic (adapted where appropriate) written texts and questions related to them in the target language.</p>	<p>Express information fairly accurately, in both writing and in speech, using a range of basic vocabulary and grammatical structures.</p> <p>Communicate orally and respond appropriately to most questions on the three prescribed themes and related topics.</p> <p>Communicate clearly, in writing, some simple information and ideas in response to a written task.</p>	<p>Understand and respond clearly to some information and ideas within the range of the three prescribed themes and related topics.</p> <p>Engage in simple conversations.</p> <p>Demonstrate some intercultural understanding by reflecting on similarities and differences between the target culture(s) and the student's own and by providing some appropriate examples and information.</p>

The Spanish Ab Initio course is based on the following basic language skills:

- Oral comprehension
- Oral expression
- Written comprehension
- Written expression

Each linguistic skill is composed of three closely linked areas which are also the criteria for assessment of both oral and written work:

- Language
- Cultural interaction
- Message

Assessment Objectives

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

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

Assessment Criteria

- Speaking competence is assessed regularly – and formatively – through in-class practice of the language, role-play, class discussions, oral vignettes and dialogues, pair, group and individual tasks such as interactive interviews and oral presentations; the language of the classroom is strictly Spanish.
- Writing is formatively assessed in class, and through written feedback on formal and informal written compositions, note taking, as well as in end-of-topic formative and summative class tests.
- Students will also be exposed to, and assessed on their understanding of authentic Spanish materials, including music, television, and film.
- Reading comprehension – for gist and detail – will be assessed through class work, homework tasks as well as in end-of-topic formative and summative class tests.

While general, ongoing assessment will follow the IBDP marking system of 0-7, each term there will be specific skill-based assessment, where each skill will be evaluated separately, to show each student his/her areas of particular strength/weakness and guide future study focus.

Assessment outline

First Examinations 2013

Assessment Component	Weighting
External Assessment	75%
Paper 1 (1 hour 30 minutes): Receptive Skills Understanding of four written texts. (40 marks) Text-handling exercises.	30%
Paper 2 (1 hour): Productive Skills Two compulsory writing exercises. (25 marks) Section A (7 marks): One question to be answered from a choice of two. Section B (18 marks): One question to be answered from a choice of three.	25%
Written assignment (2 hours): Receptive and Productive Skills A piece of writing, 200–300 words, in the target language carried out in class under teacher supervision. (20 marks)	20%
Internal Assessment (10 minutes): Interactive Skills	25%
Individual Oral (25 marks) Three-part oral internally assessed by the teacher and externally moderated by the IB towards the end of the course.	
<ul style="list-style-type: none"> • Part 1: Presentation of a visual stimulus (from a choice of two) by the student • Part 2: Follow-up questions on the visual stimulus • Part 3: General conversation including at least two questions on the written assignment 	

Learning Outcomes

A student who successfully completes the course will have reliably demonstrated the ability to:

- Perform basic communicative tasks within the context of weather and climate, hobbies, leisure activities, shopping, and biographical information.
- Describe weather conditions and seasons
- Identify, describe, and evaluate physical activities
- Talk about holidays and traditions, past events, express how long ago events and states occurred
- Make, accept, and refuse social invitations
- Talk about the work place, professions and trades
- Describe and discuss foods, beverages, meals, and restaurants
- Express wishes and hopes
- Make requests and express opinions
- Grant and deny permission
- Express doubt
- Give advice
- Talk about the body
- Describe health conditions and the corresponding medical treatments
- Express emotions, expectation, wishes and attitudes
- Express informal orders and instructions
- Make travel arrangements, ask about and discuss itineraries, get hotel accommodations
- Ask and give directions
- Express denial and uncertainty
- Talk about the future
- Read and write short essays on topics identified above
- Analyse the relationship between Spanish language and culture, and compare it to the relationships between other languages and cultures

Group 3
Individuals and Societies

History HL

History SL

Geography HL

Geography SL

History HL and SL

Introduction and Aims

History is concerned with individuals and societies in the widest possible context – political, social, economic, religious, technological and cultural. It is concerned with trends, developments and continuity and change.

The content of the course has been selected to enable the students to gain an understanding of the key happenings, trends and developments of the 20th century world. By making use of diverse sources, methods and interpretations, we hope that they will additionally gain an appreciation of, and a lasting interest in History.

Students studying History at IB Diploma level will learn how to offer a rational argument, make critical judgements, and write clearly. In other words, write a good essay, detect bias and omissions, and be able to appreciate more than one side to any question. The historian's skills of research, interpretation and communication are highly valued by employers, making history a course of study that is valuable to all.

Structure and Content

- **Standard Level**

1. **The Arab – Israeli Conflict 1945-75** (HL and SL) Paper 1
2. **Origin and Development of Authoritarian and Single Party States** (HL and SL)
Stalin, Hitler, Castro/ Mao. Paper 2
3. **The Cold War: Germany, Korea, Cuba, Vietnam and the Middle East/** (HL and SL)
Paper 2

- **Higher Level Only in addition to the above**

4. **Aspects of the History of the Americas** (HL) 2009-2011 USA 1880- 1929, The Mexican revolution, USA 1945-81, Civil Rights and Social movements (with BH) Paper 3
5. **Aspects of the History of Europe and the Middle East** (HL) 2008-10 War and Change in the Middle East, 1914-49, Interwar years, Post war developments in the Middle East, 1945-2000 (with JS) Paper 3

- **The Internal assessment**

The Internal assessment is a Historical Investigation of 1,500-2000 words on a topic of the student's choice and is submitted by both Standard Level and Higher level students.

Assessment

Internal 20% HL: 25 % SL

- Work produced throughout the two year programme is assessed using the I.B. grading scale.
- The Internal Assessment is marked by teachers and moderated by the IBO

External 80% HL: 75% SL

- Examinations

Component		HL	SL
Internal Assessment	Historical Investigation	20 %	25 %
Paper 1	Document based	20 %	30 %
Paper 2	Essay	25 %	45 %
Paper 3	Essay	35 %	-

Geography SL and HL

Introduction and Aims

Geography focuses on analyzing the dynamic interactions between humans and the environment, thus combining both social and natural sciences. Its interdisciplinary approach encourages students to explain trends and patterns in the way people adapt to, change, respond to and manage the natural environment. Students use case studies at a variety of scales to examine current environmental issues and social challenges in our increasingly interconnected society. Through hands on experience, students acquire an understanding of geographical methodology and techniques of inquiry.

By the end of this course, students will be expected to have a well-rounded knowledge base of geographical case studies, terminology, theories, concepts, spatial processes, contemporary world issues and interactions between people, place and the environment. With this understanding of global issues, IB Geography aims to develop values and attitudes in citizens who understand their responsibility to be active both locally and globally.

Structure and Content

- **Core Theme – Patterns and Change**
 - Populations in Transition
 - Disparities in Wealth and Development
 - Patterns in Environmental Quality and Sustainability
 - Patterns in Resource Consumption
- **Optional Themes**
 - Hazards and Disasters – Risk Assessment and Response
 - Urban Environments
- **HL Only**
 - Leisure, Sport and Tourism
 - Global Interactions

Assessment

External		
Paper 1 - short answer and data response questions; extended response question	1 hour 30 minutes	40% (SL) 25% (HL)
Paper 2 - -structured questions based on stimulus material from optional themes	1 hour 20 minutes	35% (SL) 35% (HL)
Paper 3 - essay question	1 hour	20% (HL only)
Internal		
Fieldwork Report - 2500 word report based on fieldwork conducted by students	20 hours (class time) + time required outside of class	25% (SL) 20% (HL)

Group 4
Experimental Sciences

Biology HL

Biology SL

Chemistry HL

Chemistry SL

Physics HL

Physics SL

Biology HL and SL

Introduction and Aims

Biology is one of the fastest changing sciences today, with, for example, new techniques being developed in the area of genetic engineering which challenge students' ethical standpoints and which encourage them to take an analytical viewpoint of the information with which they are provided. The study of Biology also provides links to other subjects such as the other sciences, mathematics and history. Students are advised to think carefully and seek advice before choosing Biology on the mistaken premise that it represents an "easy option". Each of the experimental sciences courses provide the student with a real challenge with Biology containing a demanding element of statistical analysis and in general requiring a good level of expression in written English.

Structure and Content

Both the HL and SL courses contain the list of topics referred to as the Subject Specific Core (SSC). The HL course includes in addition to the SSC, the Additional Higher Level (AHL) topics.

Subject Specific Core Topics (HL and SL)	Additional Higher Level Topics (HL only)
1. Statistical analysis	7. Nucleic acids and proteins
2. Cells	8. Cell respiration and photosynthesis
3. The chemistry of life	9. Plant science
4. Genetics	10. Genetics
5. Ecology and evolution	11. Human health and physiology
6. Human health and physiology	

Both the HL and SL courses include the study of Option Topics.
The list of possible options is as follows:

SL only Options

A Human Nutrition and health	C Cells and energy
B Physiology of exercise	

SL and HL Options

D Evolution	F Microbes and biotechnology
E Neurobiology and behaviour	G Ecology and conservation

HL only Option

H Further human physiology

SL candidates are required to study **two options from A-G**.

HL candidates are required to study **two options from D-H**.

In addition, HL and SL students are required to carry out Practical Investigations in all topic areas and in the chosen Options. A special requirement is participation of Biology, Chemistry and Physics students in the collaborative learning **Group 4 project**.

Assessment

		HL	SL
Paper 1	Multiple Choice Questions (externally assessed)	20%	20%
Paper 2	Short-answer and extended response questions (externally assessed)	36%	32%
Paper 3	Options (externally assessed)	20%	24%
Experimental Investigations and Group 4 Project (internally assessed)		24%	24%

Chemistry HL and SL

Introduction and Aims

“Chemistry is the central science. Chemical principles underpin the physical environment in which we live, and all biological systems” (IBO Chemistry Subject Guide). The study of chemistry is therefore important in its own right as well in aiding the understanding of other sciences. For students who do not intend to pursue the study of chemistry beyond secondary school, it provides valuable training in lateral thinking and it is an academic discipline in which theory and practical investigation closely support each other.

Structure and Content

Both the HL and SL courses contain the list of topics referred to as the Subject Specific Core (SSC). The HL course includes in addition to the SSC, the Additional Higher Level (AHL) topics.

Subject Specific Core Topics (HL and SL)

1. Quantitative Chemistry
2. Atomic Structure
3. Periodicity
4. Bonding
5. Energetics
6. Kinetics
7. Equilibrium
8. Acids and Bases
9. Oxidation and Reduction
10. Organic Chemistry
11. Measurement and Data Processing

Additional Higher Level Topics (HL only)

12. Atomic Structure
13. Periodicity
14. Bonding
15. Energetics
16. Kinetics
17. Equilibrium
18. Acids and Bases
19. Oxidation and Reduction
20. Organic Chemistry

Both the HL and SL courses include the study of Option Topics. The list of possible options is as follows:

SL and HL Options

- A Modern analytical chemistry
- B Human biochemistry
- C Chemistry in industry and technology
- D Medicines and drugs
- E Environmental chemistry
- F Food chemistry
- G Further organic chemistry

SL candidates are required to study **two options from A-G. Duration of each option is 15 hours.**

HL candidates are required to study **two options from A-G. Duration of each option is 22 hours.**

In addition, HL and SL students are required to carry out Practical Investigations in all topic areas and in the chosen Options. A special requirement is participation of Biology, Chemistry and Physics students in the collaborative learning **Group 4 project.**

Assessment

	HL	SL
Paper 1: Multiple Choice Questions (externally assessed)	20%	20%
Paper 2: Short-answer and extended response questions (externally assessed)	36%	32%
Paper 3: Options (externally assessed)	20%	24%
Experimental Investigations and Group 4 Project (internally assessed)	24%	24%

Physics HL and SL

Introduction and Aims

In common with other Group 4 courses, in studying physics you are given the opportunity to develop your scientific knowledge and understanding of concepts, principles and physical phenomena as well as your scientific skills associated with both conceptual and practical experimental investigation. Emphasis is also placed on increasing your awareness of the limitations of physics, its impacts on societies (past, present and future) and the responsibilities of practising physicists.

During the course you should become more aware of how physicists work and communicate with each other. You will come to know and understand more about technological applications of physics. You will see how theory and experiments complement one another. The higher level course provides a suitable preparation for higher education studies in physics and physics-related courses and for professional courses that require students to have knowledge of physics when admitted. The standard level course also greatly helps to prepare you for a wide range of other career paths in which knowledge of physics, as such, is not essential.

Structure and Content

Both the HL and SL courses contain the list of topics referred to as the Subject Specific Core (SSC). The HL course includes in addition to the SSC, the Additional Higher Level (AHL) topics.

SL and HL combined	Teaching Hours
Topic 1: Physics and physical measurement	5
Topic 2: Mechanics	17
Topic 3: Thermal physics	7
Topic 4: Oscillations and waves	10
Topic 5: Electric currents	7
Topic 6: Fields and forces	7
Topic 7: Atomic and nuclear physics	9
Topic 8: Energy, power and climate change	18
Topic 11: Wave phenomena (SL option)	15
Topic 13: Quantum physics and nuclear physics (SL option)	15
Internal Assessment plus Group 4 Project	40
SL total	150
HL only	
Topic 9: Motion in fields	8
Topic 10: Thermal physics	6
Topic 12: Electromagnetic induction	6
Topic 14: Digital technology	8
Option E: Astrophysics	22
Option J: Particle physics	22
Additional HL Internal Assessment	18
Subtotal additional HL material	90
HL total	240

HL and SL students are required to carry out Practical Investigations in all topic areas and in the chosen options. A special requirement is participation of Biology, Chemistry and Physics students in the collaborative learning **Group 4 project**.

Assessment

	HL	SL
Paper 1: Multiple Choice Questions (externally assessed)	20%	20%
Paper 2: Short-answer and extended response questions (externally assessed)	36%	32%
Paper 3: Options (externally assessed)	20%	24%
Experimental Investigations and Group 4 Project (internally assessed)	24%	24%

Group 5
Mathematics

Mathematics HL

Mathematics SL

Mathematical Studies SL

Mathematics HL

Introduction and Aims

This course caters for students with a good background in mathematics who are competent in a range of analytical and technical skills. The majority of these students will be expecting to include mathematics as a major component of their university studies, either as a subject in its own right or within courses such as physics, engineering and technology. Others may take this subject because they have a strong interest in mathematics and enjoy meeting its challenges and engaging with its problems.

The nature of the subject is such that it focuses on developing important mathematical concepts in a comprehensible, coherent and rigorous way. This is achieved by means of a carefully balanced approach. Students are encouraged to apply their mathematical knowledge to solving problems set in a variety of meaningful contexts. Development of each topic should feature justification and proof of results. Students embarking on this course should expect to develop insight into mathematical form and structure, and should be intellectually equipped to appreciate the links between concepts in different topic areas. They should also be encouraged to develop the skills needed to continue their mathematical growth in other learning environments.

The internally assessed component, the portfolio, offers students a framework for developing independence in their mathematical learning through engaging in mathematical investigation and mathematical modelling. Students will be provided with opportunities to take a considered approach to these activities, and to explore different ways of approaching a problem. The portfolio also allows students to work without the time constraints of a written examination and to develop skills in communicating mathematical ideas.

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

Structure and Content

Core Topics

Topic 1—Algebra 20 hrs

Topic 2—Functions and equations 26 hrs

Topic 3—Circular functions and trigonometry 22 hrs

Topic 4—Matrices 12 hrs

Topic 5—Vectors 22 hrs

Topic 6—Statistics and probability 40 hrs

Topic 7—Calculus 48 hrs

Options (One to be taken)

Topic 8—Statistics and probability 40 hrs

Topic 9—Sets, relations and groups 40 hrs

Topic 10—Series and differential equations 40 hrs

Topic 11—Discrete mathematics 40 hrs

Assessment

Paper 1	No calculator allowed Section A Compulsory short-response questions based on the compulsory core of the syllabus Section B Compulsory extended-response questions based on the compulsory core of the syllabus	30%
Paper 2	Graphic display calculator (GDC) required Section A Compulsory short-response questions based on the compulsory core of the syllabus Section B Compulsory extended-response questions based on the compulsory core of the syllabus	30%
Paper 3	Graphic display calculator (GDC) required. Extended-response questions based mainly on the syllabus options	20%
Portfolio	A collection of two pieces of work assigned by the teacher and completed by the student during the course. The pieces of work must be based on different areas of the syllabus and represent the two types of tasks: <ul style="list-style-type: none">• mathematical investigation• mathematical modelling	20%

Mathematics SL

Introduction and Aims

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

The IBO provides three mathematics courses, two Standard Level courses and a Higher Level course. The SL course offered gives students the opportunity to further develop their mathematical skills, knowledge and understanding without requiring the depth of study demanded by the HL course. It also allows students who plan to use mathematics in their further studies to meet the basic requirements for entry into such courses in a wide variety of college and university systems.

Structure and Content

The course is structured to focus on introducing important mathematical concepts through the development of mathematical techniques. The intention is to introduce students to these concepts in a comprehensible and coherent way, rather than insisting on mathematical rigour.

Students embarking on the course are expected to already possess knowledge of basic concepts and to be equipped with the skills needed to apply simple mathematical techniques correctly. A broad range of core topics is covered:

- Number and Algebra
- Functions and Equations
- Circular Functions and Trigonometry
- Matrices and Vector Geometry
- Statistics and Probability
- Calculus (Differentiation and Integration)

Assessment

Paper 1	Non-calculator Paper: Short- and extended-response questions on whole syllabus (externally assessed)	40%
Paper 2	Calculator-based Paper: Short- and extended-response questions on whole syllabus (externally assessed)	40%
Portfolio	Two pieces of work based on different areas of the course, representing the activities of mathematical investigation and mathematical modelling (internally assessed)	20%

Mathematical Studies SL

Introduction and Aims

This course is available at standard level (SL) only. It caters for students with varied backgrounds and abilities. More specifically, it is designed to build confidence and encourage an appreciation of mathematics in students who do not anticipate a need for mathematics in their future studies. Students taking this course need to be already equipped with fundamental skills and a rudimentary knowledge of basic processes.

The course concentrates on mathematics that can be applied to contexts related as far as possible to other subjects being studied, to common real-world occurrences and to topics that relate to home, work and leisure situations. The course includes project work, a feature unique within this group of courses: students must produce a project, a piece of written work based on personal research, guided and supervised by the teacher. The project provides an opportunity for students to carry out a mathematical investigation in the context of another course being studied, a hobby or interest of their choice using skills learned before and during the course. This process allows students to ask their own questions about mathematics and to take responsibility for a part of their own course of studies in mathematics.

The students most likely to select this course are those whose main interests lie outside the field of mathematics, and for many students this course will be their final experience of being taught formal mathematics. All parts of the syllabus have therefore been carefully selected to ensure that an approach starting with first principles can be used. As a consequence, students can use their own remembered formulae. Students likely to need mathematics for the achievement of further qualifications should be advised to consider an alternative mathematics course.

Syllabus Outline

Topic 1—Introduction to the graphic display calculator 3 hrs

Topic 2—Number and algebra 14 hrs

Topic 3—Sets, logic and probability 20 hrs

Topic 4—Functions 24 hrs

Topic 5—Geometry and trigonometry 20 hrs

Topic 6—Statistics 24 hrs

Topic 7—Introductory differential calculus 15 hrs

Topic 8—Financial mathematics

Assessment

Paper 1	15 compulsory short-response questions based on the whole syllabus (externally assessed)	40%
Paper 2	5 compulsory extended-response questions based on the whole syllabus (externally assessed)	40%
Project	The project is an individual piece of work involving the collection of information or the generation of measurements, and the analysis and evaluation of the information or measurements (internally assessed)	20%

Group 6
Arts and Electives

Visual Arts HL

Visual Arts SL

French B HL and SL

(see Group 2)

Spanish Ab Initio SL

(see Group 2)

Chemistry HL and SL

(see Group 4)

Visual Arts HL and SL

Introduction and Aims

The aims of the Visual arts course at HLA and SLA are to enable students to:

- Investigate past, present and emerging forms of visual arts and engage in producing, appreciating and evaluating these.
- develop an understanding of visual arts from a local, national and international perspective.
- build confidence in responding visually and creatively to personal and cultural experiences.
- develop skills in, and sensitivity to, the creation of works that reflect active and individual involvement.
- take responsibility for the direction of their learning through the acquisition of effective working practices.

Structure and Content

LIS offers two IB courses. They are Visual Arts Standard Level: Option A and Visual Arts Higher Level: Option A. Option A is designed for students who wish to concentrate on studio practice in visual arts. Students will produce investigation workbooks to support, inform, develop and refine studio work through sustained contextual, visual and critical investigation.

At both HL and SL, the investigation workbooks are integral to studio practice and should reflect the student's critical **visual and written** investigation.

Except for time requirements and level of expectations, the two courses are the same. SL and HL students meet together for two double lessons per week. HL students meet for an additional double lesson each week.

Studio Work is devoted to practical exploration and artistic production. The student is expected to create high quality, mature works of art with imagination and creativity through individual and, where appropriate, collaborative work. Students should develop a theme that is explored in order to produce a strong body of work.

The Investigation Workbooks will contain visual and written independent critical research and analysis in more than one culture. They are journals that should display a personal approach. They are not sketchbooks or scrapbooks. They must emphasise the relationship between artistic production and research strategies in order to complement the studio work.

The IB Visual Arts syllabus does not have units or modules to construct a course of study, but instead provides a framework that allows a course to be created which suits the cultural and personal needs of the student, and which takes advantage of the local surroundings and culture.

Assessment

The examination, in Spring of Grade 12, involves the assessment of the Studio Work and the Investigation Workbooks.

Assessment of Studio Work

External assessment: an Art Exhibition and a 30 minute interview 60%

Assessment of Investigation Workbooks

Internal assessment of the Investigation Workbooks 40%