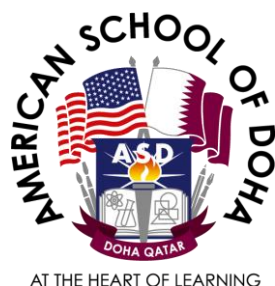


International Baccalaureate Diploma Program



American School of Doha IBDP Information and Course Guide



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Introduction: Program of Studies Options for Grades 11 and 12

The IB courses available at ASD are offered to students entering their last two years of their secondary education (grades 11 and 12). There are two possible routes available to ASD students:

- 1) Select the full IB Diploma Program which is an academically challenging internationally recognized qualification highly regarded by universities around the world. Students take six subjects, write an Extended Essay (EE), follow a course of Theory of Knowledge (ToK) and comply with all Creativity, Activity and Service (CAS) requirements. Students who follow the full Diploma Program and meet all ASD graduation requirements, will also receive the ASD High School Diploma.
- 2) Alternatively, students can take a combination of Diploma Program Courses, Advanced Placement (AP) courses, and/or US high school college preparatory courses. In this case, a student will not receive the IB Diploma. They will, however, receive the ASD High School Diploma, if they have completed the courses and credits necessary for graduation. They will also receive IB certificates for any IB subjects completed successfully.

Whether focusing on the full Diploma, a number of Diploma Courses, or the High School Diploma, students attend all the same IB classes, all at the IB Diploma Program level and study the same course material.

This guide contains descriptions of IB subjects offered at ASD.

Graduation Requirements

Students must earn twenty-five units of credit in grades 9-12 to qualify for an ASD diploma.

Required Courses	Minimum Requirements for non-IB Diploma Students	Minimum Recommended for College
English	4.0	4
Mathematics	3.0	4
Science	3.0	4
Social Studies	3.0	3-4
World Language	2.0	3-4
Fine & Performing Arts	1.0	1
Physical Education and Health	2.0	2
Speech (or Theory of Knowledge)	0.5	
Senior Seminar (or Theory of Knowledge)	0.5	
Electives	6.0	
Minimum Total Credits	25.0	
Community Service	10 per year of enrollment in ASD HS to be submitted yearly (Included in CAS Program)	

Other graduation requirements/recommendations

- 1) U.S. History for all U.S. citizens and strongly recommends it for non-Americans who intend to attend U.S. colleges/universities. U.S. History may be taken in grades 11 or 12. US citizens who are IB Diploma candidates will have this requirement waived.
- 2) Students must be in attendance at ASD for two consecutive semesters immediately prior to receiving an ASD diploma.
- 3) **Non-IB Diploma students are required to submit reflections on and verification of 10 hours of community service each year they are in high school at ASD. IB Diploma students will need to complete the Creativity, Activity, Service (CAS) component of the IB Program, but should have a minimum of 20 hours submitted for grades 9 & 10 prior to starting the IB Diploma Program.

American School of Doha Mission Statement:

The American School of Doha is committed to the intellectual and personal development of our students, inspiring them and empowering them to become positive, active global citizens.

International Baccalaureate 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 programs of international education and rigorous assessment.

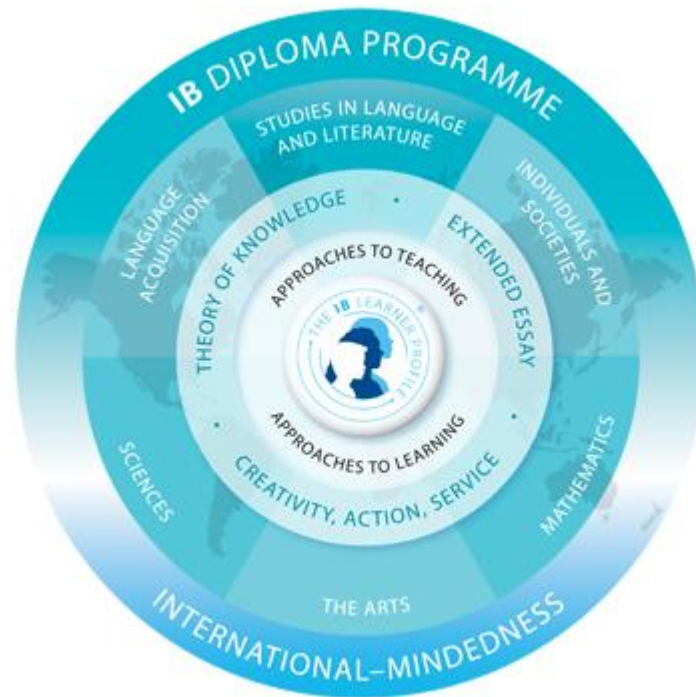
These programs encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right.

The Diploma Program

The IB Diploma Program (DP) is an academically challenging and balanced program of education with final examinations that prepares students, aged 16 to 19, for success at university and life beyond. It has been designed to address the intellectual, social, emotional and physical well-being of students. The program, has gained recognition and respect from the world's leading universities.

The Diploma Program prepares students for effective participation in a rapidly evolving and increasingly global society as they:

- develop physically, intellectually, emotionally and ethically
- acquire breadth and depth of knowledge and understanding, studying courses from 6 subject groups
- develop the skills and a positive attitude toward learning that will prepare them for higher education
- study at least two languages and increase understanding of cultures, including their own
- make connections across traditional academic disciplines and explore the nature of knowledge through the program's unique theory of knowledge course
- undertake in-depth research into an area of interest through the lens of one or more academic disciplines in the extended essay
- enhance their personal and interpersonal development through creativity, action and service



IB Diploma Program students must choose one subject from each of five groups (1 to 5), ensuring breadth of knowledge and understanding in their best language, additional language(s), the social sciences, the experimental sciences and mathematics. Student may choose either an arts subject from group 6, or a second subject from groups 1 to 4.

At least three and not more than four subjects are taken at higher level (240 teaching hours), while the other subjects are taken at standard level (150 teaching hours).

In addition to disciplinary and interdisciplinary study, the Diploma Program features three core elements that broaden students' educational experience and challenge them to apply their knowledge and skills.

Diploma Program Courses

For some students, taking individual diploma courses, rather than the full IB diploma may be a more appropriate option. At ASD, diploma course (certificate) students can take any number of IB courses in combination with Advanced Placement (AP) or US college preparatory courses offered. The decision to take individual IB courses rather than the full Diploma is often based on a number of factors some of which include a student's academic ability, a student's past performance in the discipline, pre-requisites having been met, and recommendations of teachers and counselors. Students who take the full Diploma but fail to achieve a passing grade will automatically be issued by IB a results document indicating the courses taken and results (a Certificate). **Students and parents should be aware that while a qualification consisting of a number of Diploma courses is accepted by some universities as a course entrance requirement, it is rarely true of the most competitive universities, particularly in the UK and mainland Europe. Students are strongly encouraged to check the entrance requirements of the universities in their home countries before any decision is taken to study the full IB diploma.**

The IB Learner Profile

The IB learner profile is the IB mission statement translated into a set of learning outcomes for the 21st century. The learner profile provides a long-term vision of education. It is a set of ideals that can inspire, motivate and focus the work of schools and teachers, uniting them in a common purpose. A video bringing the Learner Profile to life can be found at <http://www.ibo.org/programmes/profile/index.cfm>.

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.

As IB learners we strive to be:

INQUIRERS

We nurture our curiosity, developing skills for inquiry and research. We know how to learn independently and with others. We learn with enthusiasm and sustain our love of learning throughout life.

KNOWLEDGEABLE

We develop and use conceptual understanding, exploring knowledge across a range of disciplines. We engage with issues and ideas that have local and global significance.

THINKERS

We use critical and creative thinking skills to analyse and take responsible action on complex problems. We exercise initiative in making reasoned, ethical decisions.

COMMUNICATORS

We express ourselves confidently and creatively in more than one language and in many ways. We collaborate effectively, listening carefully to the perspectives of other individuals and groups.

PRINCIPLED

We act with integrity and honesty, with a strong sense of fairness and justice, and with respect for the dignity and rights of people everywhere. We take responsibility for our actions and their consequences.

OPEN-MINDED

We critically appreciate our own cultures and personal histories, as well as the values and traditions of others. We seek and evaluate a range of points of view, and we are willing to grow from the experience.

CARING

We show empathy, compassion and respect. We have a commitment to service, and we act to make a positive difference in the lives of others and in the world around us.

RISK-TAKERS

We approach uncertainty with forethought and determination; we work independently and cooperatively to explore new ideas and innovative strategies. We are resourceful and resilient in the face of challenges and change.

BALANCED

We understand the importance of balancing different aspects of our lives—intellectual, physical, and emotional—to achieve well-being for ourselves and others. We recognize our interdependence with other people and with the world in which we live.

REFLECTIVE

We thoughtfully consider the world and our own ideas and experience. We work to understand our strengths and weaknesses in order to support our learning and personal development.

The IB learner profile represents 10 attributes valued by IB World Schools. We believe these attributes, and others like them, can help individuals and groups become responsible members of local, national and global communities.

The International Baccalaureate Program: ASD Subjects Offered

Students taking the IB Diploma take six subjects, ideally two Languages, a Humanities subject, a Science, Math, and an Arts subject. Three of these subjects are taken at Higher level (HL) and three at Standard level (SL).

Group 1: Studies in Language and Literature

- Language A: Literature HL/SL (English)
- Language A: Language and Literature (Arabic, English, Spanish)
- School Supported Self-Taught Language A: Literature (SL, Full Diploma candidates only)

Group2: Language Acquisition

- Arabic, French, Spanish B HL/SL
- Arabic, French, Spanish ab initio SL

Group 3: Individuals and Societies

- Economics HL/SL
- Global Politics HL/SL
- History HL/SL
- Psychology HL/SL

Group 4: Sciences

- Biology HL/SL
- Chemistry HL/SL
- Physics HL/SL

Group 5: Mathematics

- Mathematics HL
- Mathematics SL
- Mathematical Studies SL

Group 6: The Arts

- Theatre HL/SL
- Visual Arts HL/SL
- Film HL/SL

Grade 11 Course Selection Instructions for the IB Diploma Program

- 1) Select 1 course from each of Groups 1 through 5
- 2) One of your five courses must include an English course, either Literature or Language and Literature
- 3) Select 1 course from Group 6 or a second course from Groups 1, 2, 3, or 4
- 4) Select 3 subjects at Higher level and 3 subjects at Standard level

Higher Level/Standard Level

Higher level generally means more material, or material taught at a greater depth, and will also involve longer and/or additional examination papers at the end of the two-year program.

IB recommends 240 hours of study for HL courses, 150 hours for SL courses and 100 hours for ToK over two years. Although an IB Diploma consists of six subjects (three at HL and three at SL), exceptionally and only with the agreement of the DP Coordinator, a student may take four subjects at HL and/or a seventh subject. Both these options are subject to timetabling constraints.

Choice of Subjects in Relation to College and Career Choices

As they move through grade 10 and attend the annual Counselor's Course, students need to begin to consider their choice of subjects in grades 11 and 12 very carefully. In doing so, students must think beyond the last two years of their ASD experience. Whether choosing the full IB Diploma or a combination of IB, AP and college preparatory courses, the subjects chosen may directly affect options in further education. An ill-informed choice before entering grade 11 can create significant problems several years later. To avoid this, all grade 10 students at ASD should meet with their Counselor and the DP Coordinator and discuss subject choices with teachers in light of their college and career plans. These meetings and conversations will help ensure that courses requested are the ones needed. If a change is made later, the new choices cannot be guaranteed.

Inclusive Access Arrangements

ASD and IB recognize that some students have learning challenges and/or exceptionalities and offer the possibility of Inclusive Access Arrangements for them. The DP Coordinator can apply for such accommodation, but he must do so 12-15 months before the final exams – in quarter 3 of grade 11 at the latest. Any such application must be accompanied by recent specialist test results. Preparing the material can be a time-consuming process so it is best to consult the school as soon as the student has enrolled in the Diploma Program. Information

about learning difficulties will be treated with discretion. Please do not withhold it in the belief that such secrecy will help the student. Share it with the Admissions Office, the DP Coordinator, the Learning Support Coordinator, the HS Principal, and Counselor.

Parents wishing to know more about the ASD and IB policies and practices regarding Inclusive Access Arrangements can contact the DP Coordinator or the Learning Support Coordinator for further information.

Entrance into the Diploma Program

When ASD students transition into the Diploma program, they should generally have achieved a B+ or higher in the subjects they wish to study at Higher level. New students who have taken the I/GCSE would be expected to have achieved at least a B grade or higher to study a subject at Higher level. For HL Mathematics, an A/A* at I/GCSE would be the most appropriate entry requirement. Entry requirements for students with different national qualifications, or who have not taken any formal examinations at the age of 15/16 will depend on the grades noted on their school report. It is expected that all potential ASD IB Diploma candidates be in good academic standing and generally perform at a B level of achievement or higher in all subject areas.

Group 1: Studies in Language and Literature

English A: Literature HL/SL

School Supported Self-Taught Language A: Literature SL Only

Arabic A: Language and Literature HL/SL

English A: Language and Literature HL/SL

Spanish A: Language and Literature HL/SL

Group 1 aims: The aims of Language A: literature and Language A: language and literature at HL and at SL are to:

1. introduce students to a range of texts from different periods, styles and genres
2. develop in students the ability to engage in close, detailed analysis of individual texts and make relevant connections
3. develop the students' powers of expression, both in oral and written communication
4. encourage students to recognize the importance of the contexts in which texts are written and received
5. encourage, through the study of texts, an appreciation of the different perspectives of people from other cultures, and how these perspectives construct meaning
6. encourage students to appreciate the formal, stylistic and aesthetic qualities of texts
7. promote in students an enjoyment of, and lifelong interest in, language and literature.

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

8. develop in students an understanding of the techniques involved in literary criticism
9. develop the students' ability to form independent literary judgments and to support those ideas.

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

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

Language A: Literature

Syllabus component	Teaching hours	
	SL	HL
<i>Part 1: Works in translation</i>		
SL: Two works	40	65
HL: Three works		
All works are chosen from the titles in the prescribed literature in translation (PLT) list.		
<i>Part 2: Detailed study</i>		
SL: Two works	40	65
HL: Three works		
All works are chosen from the prescribed list of authors (PLA) for the Language A being studied, each from a different genre.		
<i>Part 3: Literary genres</i>		
SL: Three works	40	65
HL: Four works		
All works are chosen from the prescribed list of authors (PLA) for the language A being studied, all from the same genre.		
<i>Part 4: Options</i>		
SL: Three works	30	45
HL: Three works		
Works are freely chosen in any combination.		
<i>Total teaching hours</i>	150	240

Language A: Language and Literature

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

Group 2: Language Acquisition

Language B: Arabic, French, Spanish

Language ab initio: Arabic, French, Spanish

Language ab initio

The language ab initio course is organized into three themes.

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

Each theme has a list of topics that provide the students with opportunities to practice and explore the language as well as to develop intercultural understanding. Through the development of receptive, productive and interactive skills, students should be able to respond and interact appropriately in a defined range of everyday situations. Language ab initio is available at SL only.

Language B

Language B is an additional language-learning course designed for students with some previous learning of that language. It may be studied at either SL or HL. The main focus of the course is on language acquisition and development of language skills. These language skills should be developed through the study and use of a range of written and spoken material. Such material will extend from everyday oral exchanges to literary texts, and should be related to the culture(s) concerned. The material should be chosen to enable students to develop mastery of language skills and intercultural understanding. It should not be intended solely for the study of specific subject matter or content.

The following table is provided to assist teachers in placing students in an appropriate language course. Each course is described through statements explaining the learning outcomes that students who complete the course with a grade 4 or above (where grade 1 is “very poor” and grade 7 “excellent”) will be able to achieve by the **end** of the course.

Diploma Program coordinators and teachers should ensure that, as far as possible, students are following the course that is most suited to their needs and that will provide them with an appropriate academic challenge.

When establishing assessment tasks and level descriptors, various international standards were used as a reference point.

Course	Receptive skills	Productive skills	Interactive skills
Language ab initio SL	Understand, both aurally and in writing, simple sentences and some more complex sentences related to the three themes and related topics. Understand simple authentic (adapted where appropriate) written texts and questions related to them in the target language.	Express information fairly accurately, in both writing and in speech, using a range of basic vocabulary and grammatical structures. Communicate orally and respond appropriately to most questions on the three prescribed themes and related topics. Communicate clearly, in writing, some simple information and ideas in response to a written task.	Understand and respond clearly to some information and ideas within the range of the three prescribed themes and related topics. Engage in simple conversations. 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.
Language B SL	Understand straightforward recorded or spoken information on the topics studied. Understand authentic written texts related to the topics studied and that use mostly everyday language.	Communicate orally in order to explain a point of view on a designated topic. Describe with some detail and accuracy experiences, events and concepts. Produce texts where the use of register, style, rhetorical devices and structural elements are generally appropriate to the audience and purpose.	Demonstrate interaction that usually flows coherently, but with occasional limitations. Engage in conversations on the topics studied, as well as related ideas. Demonstrate some intercultural engagement with the target language and culture(s).
Language B HL	Understand complex recorded or spoken information on the topics studied. Appreciate literary works in the target language. Understand complex authentic written texts related to the topics studied.	Communicate orally in order to explain in detail a point of view. Describe in detail and accurately experiences and events, as well as abstract ideas and concepts. Produce clear texts where the use of register, style, rhetorical devices and structural elements are appropriate to the audience and purpose. Produce clear and convincing arguments in support of a point of view.	Demonstrate interaction that flows coherently with a degree of fluency and spontaneity. Engage coherently in conversations in most situations. Demonstrate some intercultural engagement with the target language and culture(s).

Distinction between SL and HL

Most language B subjects are available at SL and HL. The courses give students the possibility of reaching a high degree of competence in an additional language while exploring the culture(s) where that language is spoken. The courses aim to develop the students' linguistic competence and intercultural understanding. There is a common syllabus at SL and HL (with literature as an additional component of the HL course). The differences between levels are determined by the assessment objectives, the depth and breadth of syllabus coverage, the assessment details, the assessment criteria, literature coverage and suggested teaching hours.

Prior learning

Many factors determine the group 2 course that a student should take: the student's best language, the language(s) spoken at home and at school, and any previous knowledge of the language of study. The most important consideration is that the language B course should be a challenging educational experience for the student, offering not only the opportunity to learn an additional language but also the means of learning, appreciating and effectively interacting in a culture different from the student's own. All final decisions on the appropriateness of the course for which students are entered are taken by coordinators in liaison with teachers using their experience and professional judgment to guide them.

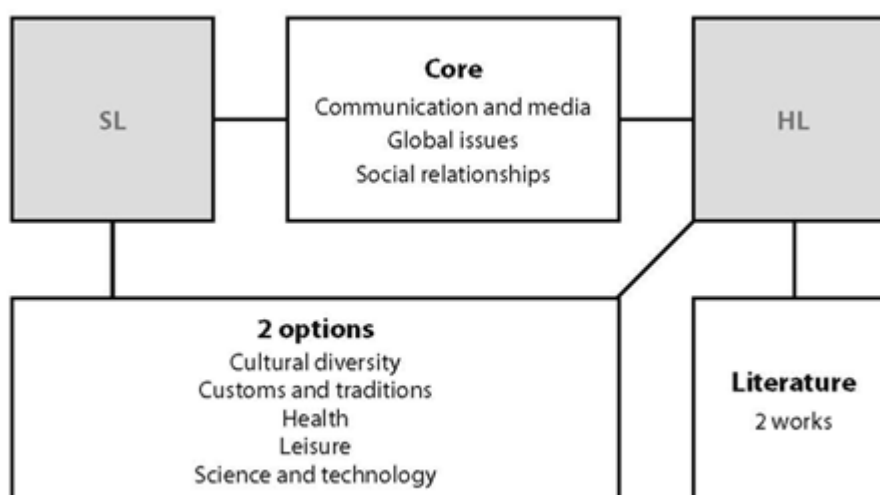


Figure 2

Language B syllabus outline

Language B is a language acquisition course developed at two levels—standard level (SL) and higher level (HL)—for students with some background in the target language. While acquiring a language, students will explore the culture(s) connected to it. The focus of these courses is language acquisition and intercultural understanding.

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

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

The core—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

Also, at HL, students read **two** works of literature.

Language ab initio syllabus outline

Three areas of study—language, texts and themes—provide the basis of the two-year language ab initio course. These three fundamental areas are interconnected and should be studied concurrently. Interactive, productive and receptive skills are developed through study in these three areas and are of equal importance.

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

Group 3: Individuals and Societies

Economics HL/SL

Global Politics HL/SL

History HL/SL

Psychology HL/SL

Group 3 aims

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

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

Economics aims

In addition, the aims of the economics syllabus at SL and HL are to enable students to:

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

Global Politics aims

The aims of the global politics course at SL and HL are to enable students to:

1. understand key political concepts and contemporary political issues in a range of contexts
2. develop an understanding of the local, national, international and global dimensions of political activity
3. understand, appreciate and critically engage with a variety of perspectives and approaches in global politics

4. appreciate the complex and interconnected nature of many political issues, and develop the capacity to interpret competing and contestable claims regarding those issues.

History aims

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

7. develop an understanding of, and continuing interest in, the past
8. encourage students to engage with multiple perspectives and to appreciate the complex nature of historical concepts, issues, events and developments
9. promote international-mindedness through the study of history from more than one region of the world
10. develop an understanding of history as a discipline and to develop historical consciousness including a sense of chronology and context, and an understanding of different historical perspectives
11. develop key historical skills, including engaging effectively with sources
12. increase students' understanding of themselves and of contemporary society by encouraging reflection on the past.

Psychology aims

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

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

Economics HL/SL

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

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

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

Distinction between SL and HL

SL and HL students of economics are presented with a common syllabus, with an HL extension in some topics. The syllabus for both SL and HL students requires the development of certain skills and techniques, attributes and knowledge—as described in the assessment objectives of the program.

While the skills and activity of studying economics are common to both SL and HL students, the HL student is required to acquire a further body of knowledge—including the ability to analyze, synthesize and evaluate that knowledge—and to develop quantitative skills in order to explain and analyze economic relationships. These quantitative skills are specifically assessed at HL in paper 3.

Prior learning

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

Syllabus component	Teaching hours	
	SL	HL
Section 1: Microeconomics		
1.1 Competitive markets: demand and supply (some topics HL only)		
1.2 Elasticity		
1.3 Government intervention (some topics HL extension, plus one topic HL only)	35	95
1.4 Market failure (some topics HL only)		
1.5 Theory of the firm and market structures (HL only)		

Section 2: Macroeconomics

2.1 The level of overall economic activity (one topic HL extension)

2.2 Aggregate demand and aggregate supply (one topic HL only)

2.3 Macroeconomic objectives (some topics HL extension, plus one topic HL only) 40 50

2.4 Fiscal policy

2.5 Monetary policy

2.6 Supply-side policies

Section 3: International economics

3.1 International trade (one topic HL extension, plus one topic HL only)

3.2 Exchange rates (some topics HL extension)

3.3 The balance of payments (one topic HL extension, plus some topics HL only) 25 45

3.4 Economic integration (one topic HL extension)

3.5 Terms of trade (HL only)

Section 4: Development economics

4.1 Economic development

4.2 Measuring development

4.3 The role of domestic factors

4.4 The role of international trade (one topic HL extension) 30 30

4.5 The role of foreign direct investment (FDI)

4.6 The roles of foreign aid and multilateral development assistance

4.7 The role of international debt

4.8 The balance between markets and intervention

Internal assessment 20 20

Portfolio of three commentaries

Total teaching hours 150 240

Global Politics HL/SL

The 21st century is characterized by rapid change and increasing interconnectedness, impacting individuals and societies in unprecedented ways and creating complex global political challenges. Global politics is an exciting, dynamic subject that draws on a variety of disciplines in the social sciences and humanities, reflecting the complex nature of many contemporary political issues. The study of global politics enables students to critically engage with different and new perspectives and approaches to politics in order to comprehend the challenges of the changing world and become aware of their role in it as active global citizens.

The Diploma Program global politics course explores fundamental political concepts such as power, equality, sustainability and peace in a range of contexts. It allows students to develop an understanding of the local, national, international and global dimensions of political activity and processes, as well as to explore political issues affecting their own lives. The course helps students to understand abstract political concepts by grounding them in real-world examples and case studies. It also invites comparison between such examples and case studies to ensure a wider and transnational perspective.

The core units of the course together make up a central unifying theme of “people, power and politics”. The emphasis on “people” reflects the fact that the course explores politics not only at a state level but also explores the function and impact of non-state actors, communities, groups and individuals. The concept of “power” is also emphasized as being particularly crucial to understanding the dynamics, tensions and outcomes of global politics. Throughout the course, issues such as conflict, migration or climate change are explored through an explicitly political lens: “politics” provide a uniquely rich context in which to explore the relationship between people and power.

Distinction between SL and HL

Students of global politics at SL and HL are presented with a syllabus that has a common core. This common core consists of four compulsory units under the central unifying theme of “people, power and politics”. All SL and HL students are also required to undertake an engagement activity. In addition, HL students are also required, through a case studies approach, to explore two HL extension topics (global political challenges).

In summary:

- SL and HL students study the four core units and undertake an engagement activity
- through a case studies approach, HL students also examine and evaluate two global political challenges, which by their nature are complex, contestable and interlinked; this provides further depth at HL.

Prior learning

The global politics course requires no specific prior learning. No particular background in terms of specific subjects studied for national or international qualifications is expected or required. The skills needed for the global politics course are developed within the context of the course itself.

Syllabus outline

Syllabus component	Teaching hours	
	SL	HL
Core units: people, power and politics		
Four compulsory units:		
1. Power, sovereignty and international relations	130	130
2. Human rights		
3. Development		
4. Peace and conflict		
Engagement activity		
An engagement on a political issue of personal interest, complemented with research	20	20
HL extension: global political challenges		
Political issues in two of the following six global political challenges researched and presented through a case-study approach:		
1. Environment		
2. Poverty		90
3. Health		
4. Identity		
5. Borders		
6. Security		
Total teaching hours	150	240

History

History is a dynamic, contested, evidence-based discipline that involves an exciting engagement with the past. It is a rigorous intellectual discipline, focused around key historical concepts such as change, causation and significance. History is an exploratory subject that fosters a sense of inquiry. It is also an interpretive discipline, allowing

opportunity for engagement with multiple perspectives and a plurality of opinions. Studying history develops an understanding of the past, which leads to a deeper understanding of the nature of humans and of the world today. The IB Diploma Program (DP) history course is a world history course based on a comparative and multi-perspective approach to history. It involves the study of a variety of types of history, including political, economic, social and cultural, and provides a balance of structure and flexibility. The course emphasizes the importance of encouraging students to think historically and to develop historical skills as well as gaining factual knowledge. It puts a premium on developing the skills of critical thinking, and on developing an understanding of multiple interpretations of history. In this way, the course involves a challenging and demanding critical exploration of the past.

There are six key concepts that have particular prominence throughout the DP history course.

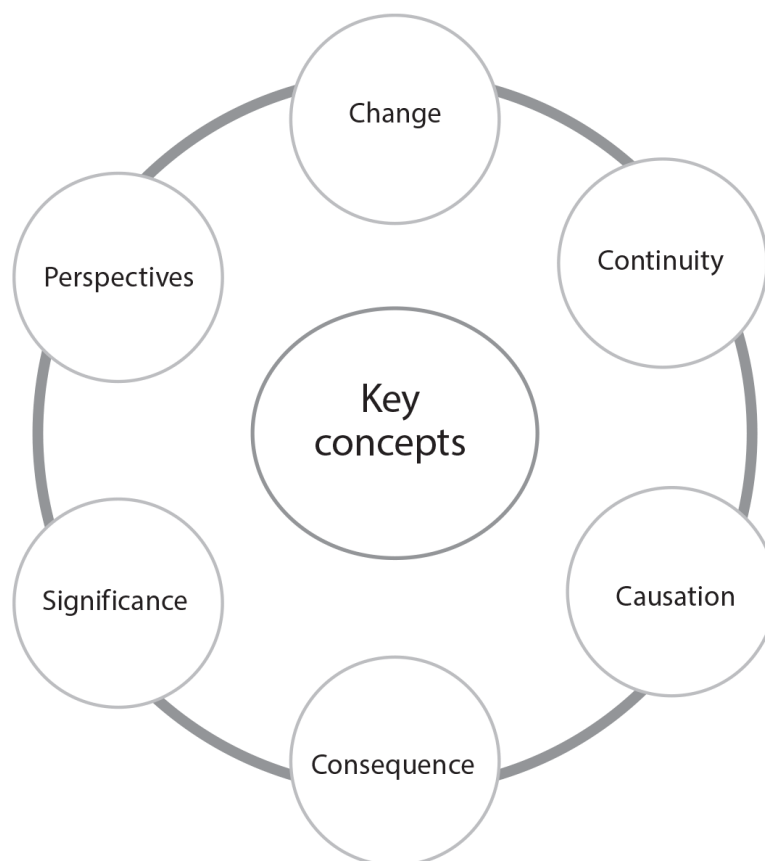


Figure 2

Key concepts for DP history

Distinction between SL and HL

Students at standard level (SL) and higher level (HL) are presented with a syllabus that has a common core consisting of prescribed subjects and topics in world history. In addition, students at HL are also required to undertake an in-depth study of three sections from one of

the HL regional options. While many of the skills of studying history are common to both SL and HL, the difference in recommended teaching hours at SL and HL signals a clear distinction between the demands made on students, with the greater depth of study required for HL.

The difference between the history course at SL and the course at HL can be summarized as follows.

Prior learning

Students need not have studied history prior to starting the DP history course. In particular, it is neither expected nor required that specific subjects have been studied for national or international qualifications in preparation for this course. The specific skills and knowledge required are developed throughout the course itself.

	SL	HL
Syllabus	<ul style="list-style-type: none"> • The study of one prescribed subject from a choice of five • The study of two world history topics from a choice of twelve • A historical investigation 	<ul style="list-style-type: none"> • The study of one prescribed subject from a choice of five • The study of two world history topics from a choice of twelve • The study of three sections from one HL regional option • A historical investigation
Assessment	<ul style="list-style-type: none"> • Paper 1: A source-based paper set on the prescribed subjects • Paper 2: An essay paper based on the world history topics • Internal assessment (IA): A historical investigation 	<ul style="list-style-type: none"> • Paper 1: A source-based paper set on the prescribed subjects • Paper 2: An essay paper based on the world history topics • Paper 3: An essay paper on one of the four HL regional options • Internal assessment (IA): A historical investigation

Syllabus component	Teaching hours	
	SL	HL
Prescribed subjects		
1. Military leaders		
2. Conquest and its impact		
3. The move to global war	40	40
4. Rights and protest		
5. Conflict and intervention		
World history topics		
1. Society and economy (750–1400)	90	90
2. Causes and effects of medieval wars (750–1500)		

3. Dynasties and rulers (750–1500)
4. Societies in transition (1400–1700)
5. Early Modern states (1450–1789)
6. Causes and effects of Early Modern wars (1500–1750)
7. Origins, development and impact of industrialization (1750–2005)
8. Independence movements (1800–2000)
9. Evolution and development of democratic states (1848–2000)
10. Authoritarian states (20th century)
11. Causes and effects of 20th-century wars
12. The Cold War: Superpower tensions and rivalries (20th century)

HL options: Depth studies

- | | |
|--|----|
| 1. History of Africa and the Middle East | |
| 2. History of the Americas | 90 |
| 3. History of Asia and Oceania | |
| 4. History of Europe | |

Internal assessment

	20	20
Historical investigation		
Total teaching hours	150	240

The recommended teaching time is 240 hours to complete HL courses and 150 hours to complete SL courses as stated in the document *General regulations: Diploma Program*.

Prescribed subjects

One prescribed subject must be chosen for study from the following list.

1. Military leaders
2. Conquest and its impact
3. The move to global war
4. Rights and protest
5. Conflict and intervention

The following pages detail the content that must be studied for each prescribed subject. For each prescribed subject two case studies, from different regions of the world, are identified. **Both** of the case studies for the prescribed subject selected must be studied. Each of the case studies has quite a narrow focus, so it is therefore important that teachers also help students to understand the wider context in which the case study takes place.

The prescribed subjects are assessed on paper 1, which is a source-based examination paper (see the “External assessment” section for more details). It is therefore important that the

content for the chosen prescribed subject be explored using a range of original evidence and secondary works, so that students develop the skills required for this component.

World History Topics

This element of the course explores key topics in world history. Teachers should select **two** topics from the following 12 options.

1. Society and economy (750–1400)
2. Causes and effects of medieval wars (750–1500)
3. Dynasties and rulers (750–1500)
4. Societies in transition (1400–1700)
5. Early Modern states (1450–1789)
6. Causes and effects of Early Modern wars (1500–1750)
7. Origins, development and impact of industrialization (1750–2005)
8. Independence movements (1800–2000)
9. Evolution and development of democratic states (1848–2000)
10. Authoritarian states (20th century)
11. Causes and effects of 20th-century wars
12. The Cold War: Superpower tensions and rivalries (20th century)

The following pages contain tables for each world history topic outlining the topics for study and the prescribed content. Suggested examples are also provided for each topic. It should be noted that for this syllabus component the examples provided are **suggestions only** and should not be taken as prescriptive. Teachers are free to use these examples or to replace them with others that more closely meet the needs and interests of their students. For each topic examples must be studied from more than one region of the world. For the purposes of the DP history course the world has been divided into four regions. They are Asia and Oceania, Africa and the Middle East, Europe, and the Americas.

Psychology HL/SL

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

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

Psychology and the international dimension

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

Distinction between SL and HL

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

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

Prior learning

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

Syllabus component	Teaching hours	
	SL	HL
Part 1: Core (SL/HL)		
<ul style="list-style-type: none">• The biological level of analysis• The cognitive level of analysis• The sociocultural level of analysis	90	90
Part 2: Options (SL/HL)		
<ul style="list-style-type: none">• Abnormal psychology• Developmental psychology• Health psychology• Psychology of human relationships• Sport psychology	30	60

Part 3: Qualitative research methodology (HL only)		
• Qualitative research in psychology		50
Part 4: Simple experimental study (SL/HL)		
• Introduction to experimental research methodology	30	40
Total teaching hours	150	240

Group 4: Sciences

Biology HL/SL

Chemistry HL/SL

Physics HL/SL

Group 4 aims

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

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

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

Science and the international dimension

Science itself is an international endeavor—the exchange of information and ideas across national boundaries has been essential to the progress of science. This exchange is not a new phenomenon but it has accelerated in recent times with the development of information and communication technologies. Indeed, the idea that science is a Western invention is a myth—many of the foundations of modern-day science were laid many centuries before by Arabic, Indian and Chinese civilizations, among others. Teachers are encouraged to emphasize this contribution in their teaching of various topics, perhaps through the use of timeline websites. The scientific method in its widest sense, with its emphasis on peer review, open-mindedness and freedom of thought, transcends politics, religion, gender and nationality. Where appropriate within certain topics, the syllabus details sections in the group 4 guides contain links illustrating the international aspects of science.

On an organizational level, many international bodies now exist to promote science. United Nations bodies such as UNESCO, UNEP and WMO, where science plays a prominent part, are well known, but in addition there are hundreds of international bodies representing every

branch of science. The facilities for large-scale research in, for example, particle physics and the Human Genome Project are expensive, and only joint ventures involving funding from many countries allow this to take place. The data from such research is shared by scientists worldwide. Group 4 teachers and students are encouraged to access the extensive websites and databases of these international scientific organizations to enhance their appreciation of the international dimension.

Increasingly there is a recognition that many scientific problems are international in nature and this has led to a global approach to research in many areas. The reports of the Intergovernmental Panel on Climate Change are a prime example of this. On a practical level, the group 4 project (which all science students must undertake) mirrors the work of real scientists by encouraging collaboration between schools across the regions.

The power of scientific knowledge to transform societies is unparalleled. It has the potential to produce great universal benefits, or to reinforce inequalities and cause harm to people and the environment. In line with the IB mission statement, group 4 students need to be aware of the moral responsibility of scientists to ensure that scientific knowledge and data are available to all countries on an equitable basis and that they have the scientific capacity to use this for developing sustainable societies.

Distinction between SL and HL

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

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

Prior learning

Past experience shows that students will be able to study a group 4 science subject at SL successfully with no background in, or previous knowledge of, science. Their approach to learning, characterized by the IB learner profile attributes, will be significant here.

However, for most students considering the study of a group 4 subject at HL, while there is no intention to restrict access to group 4 subjects, some previous exposure to formal science education would be necessary. Specific topic details are not specified but students who have undertaken the IB Middle Years Programme (MYP) or studied an equivalent national science qualification or a school-based science course would be well prepared for an HL subject.

Biology HL/SL

Nature of biology

Biology is the study of life. The first organisms appeared on the planet over 3 billion years ago and, through reproduction and natural selection, have given rise to the 8 million or so different species alive today. Estimates vary, but over the course of evolution 4 billion species could have been produced. Most of these flourished for a period of time and then became extinct as new, better adapted species took their place. There have been at least five periods when very large numbers of species became extinct and biologists are concerned that another mass extinction is under way, caused this time by human activity. Nonetheless, there are more species alive on Earth today than ever before. This diversity makes biology both an endless source of fascination and a considerable challenge.

An interest in life is natural for humans; not only are we living organisms ourselves, but we depend on many species for our survival, are threatened by some and co-exist with many more. From the earliest cave paintings to the modern wildlife documentary, this interest is as obvious as it is ubiquitous, as biology continues to fascinate young and old all over the world.

The word “biology” was coined by German naturalist Gottfried Reinhold in 1802 but our understanding of living organisms only started to grow rapidly with the advent of techniques and technologies developed in the 18th and 19th centuries, not least the invention of the microscope and the realization that natural selection is the process that has driven the evolution of life.

Biologists attempt to understand the living world at all levels using many different approaches and techniques. At one end of the scale is the cell, its molecular construction and complex metabolic reactions. At the other end of the scale biologists investigate the interactions that make whole ecosystems function.

Many areas of research in biology are extremely challenging and many discoveries remain to be made. Biology is still a young science and great progress is expected in the 21st century. This progress is sorely needed at a time when the growing human population is placing ever greater pressure on food supplies and on the habitats of other species, and is threatening the very planet we occupy.

Syllabus outline

Syllabus component	Teaching hours	
	SL	HL
Core	95	
1. Cell biology	15	
2. Molecular biology	21	
3. Genetics	15	
4. Ecology	12	
5. Evolution and biodiversity	12	
6. Human physiology	20	
Additional higher level (AHL)		60
7. Nucleic acids		9
8. Metabolism, cell respiration and photosynthesis		14
9. Plant biology		13
10. Genetics and evolution		8
11. Animal physiology		16
Option	15	25
A. Neurobiology and behaviour	15	25
B. Biotechnology and bioinformatics	15	25
C. Ecology and conservation	15	25
D. Human physiology	15	25
Practical scheme of work	40	60
Practical activities	20	40
Individual investigation (internal assessment–IA)	10	10

Group 4 project	10	10
Total teaching hours	150	240

Chemistry HL/SL

Nature of chemistry

Chemistry is an experimental science that combines academic study with the acquisition of practical and investigational skills. It is often called the central science, as chemical principles underpin both the physical environment in which we live and all biological systems. Apart from being a subject worthy of study in its own right, chemistry is a prerequisite for many other courses in higher education, such as medicine, biological science and environmental science, and serves as useful preparation for employment.

Earth, water, air and fire are often said to be the four classical elements. They have connections with Hinduism and Buddhism. The Greek philosopher Plato was the first to call these entities elements. The study of chemistry has changed dramatically from its origins in the early days of alchemists, who had as their quest the transmutation of common metals into gold. Although today alchemists are not regarded as being true scientists, modern chemistry has the study of alchemy as its roots. Alchemists were among the first to develop strict experimentation processes and laboratory techniques. Robert Boyle, often credited with being the father of modern chemistry, began experimenting as an alchemist.

Despite the exciting and extraordinary development of ideas throughout the history of chemistry, certain things have remained unchanged. Observations remain essential at the very core of chemistry, and this sometimes requires decisions about what to look for. The scientific processes carried out by the most eminent scientists in the past are the same ones followed by working chemists today and, crucially, are also accessible to students in schools. The body of scientific knowledge has grown in size and complexity, and the tools and skills of theoretical and experimental chemistry have become so specialized, that it is difficult (if not impossible) to be highly proficient in both areas. While students should be aware of this, they should also know that the free and rapid interplay of theoretical ideas and experimental results in the public scientific literature maintains the crucial link between these fields.

The Diploma Programme chemistry course includes the essential principles of the subject but also, through selection of an option, allows teachers some flexibility to tailor the course to meet the needs of their students. The course is available at both standard level (SL) and higher level (HL), and therefore accommodates students who wish to study chemistry as their major subject in higher education and those who do not.

At the school level both theory and experiments should be undertaken by all students. They should complement one another naturally, as they do in the wider scientific community. The Diploma Programme chemistry course allows students to develop traditional practical skills and techniques and to increase facility in the use of mathematics, which is the language of science. It also allows students to develop interpersonal skills, and digital technology skills,

which are essential in 21st century scientific endeavour and are important life-enhancing, transferable skills in their own right.

Syllabus outline

Syllabus component	Recommended teaching hours	
	SL	HL
Core	95	
1. Stoichiometric relationships	13.5	
2. Atomic structure	6	
3. Periodicity	6	
4. Chemical bonding and structure	13.5	
5. Energetics/thermochemistry	9	
6. Chemical kinetics	7	
7. Equilibrium	4.5	
8. Acids and bases	6.5	
9. Redox processes	8	
10. Organic chemistry	11	
11. Measurement and data processing	10	
Additional higher level (AHL)		60
12. Atomic structure		2
13. The periodic table—the transition metals		4
14. Chemical bonding and structure		7
15. Energetics/thermochemistry		7
16. Chemical kinetics		6
17. Equilibrium		4
18. Acids and bases		10
19. Redox processes		6
20. Organic chemistry		12
21. Measurement and analysis		2
Option	15	25
A. Materials	15	25
B. Biochemistry	15	25
C. Energy	15	25
D. Medicinal chemistry	15	25
Practical scheme of work	40	60
Practical activities	20	40

Individual investigation (internal assessment—IA)	10	10
Group 4 project	10	10
Total teaching hours	150	240

Physics HL/SL

Nature of physics

Physics is a tortured assembly of contrary qualities: of scepticism and rationality, of freedom and revolution, of passion and aesthetics, and of soaring imagination and trained common sense.

Leon M Lederman (Nobel Prize for Physics, 1988)

Physics is the most fundamental of the experimental sciences, as it seeks to explain the universe itself from the very smallest particles—currently accepted as quarks, which may be truly fundamental—to the vast distances between galaxies.

Classical physics, built upon the great pillars of Newtonian mechanics, electromagnetism and thermodynamics, went a long way in deepening our understanding of the universe. From Newtonian mechanics came the idea of predictability in which the universe is deterministic and knowable. This led to Laplace’s boast that by knowing the initial conditions—the position and velocity of every particle in the universe—he could, in principle, predict the future with absolute certainty. Maxwell’s theory of electromagnetism described the behavior of electric charge and unified light and electricity, while thermodynamics described the relation between energy transferred due to temperature difference and work and described how all natural processes increase disorder in the universe.

However, experimental discoveries dating from the end of the 19th century eventually led to the demise of the classical picture of the universe as being knowable and predictable. Newtonian mechanics failed when applied to the atom and has been superseded by quantum mechanics and general relativity. Maxwell’s theory could not explain the interaction of radiation with matter and was replaced by quantum electrodynamics (QED). More recently, developments in chaos theory, in which it is now realized that small changes in the initial conditions of a system can lead to completely unpredictable outcomes, have led to a fundamental rethinking in thermodynamics.

While chaos theory shows that Laplace’s boast is hollow, quantum mechanics and QED show that the initial conditions that Laplace required are impossible to establish. Nothing is certain and everything is decided by probability. But there is still much that is unknown and there will undoubtedly be further paradigm shifts as our understanding deepens.

Despite the exciting and extraordinary development of ideas throughout the history of physics, certain aspects have remained unchanged. Observations remain essential to the very core of physics, sometimes requiring a leap of imagination to decide what to look for. Models are developed to try to understand observations, and these themselves can become theories that attempt to explain the observations. Theories are not always directly derived from observations but often need to be created. These acts of creation can be compared to those in

great art, literature and music, but differ in one aspect that is unique to science: the predictions of these theories or ideas must be tested by careful experimentation. Without these tests, a theory cannot be quantified. A general or concise statement about how nature behaves, if found to be experimentally valid over a wide range of observed phenomena, is called a law or a principle.

The scientific processes carried out by the most eminent scientists in the past are the same ones followed by working physicists today and, crucially, are also accessible to students in schools. Early in the development of science, physicists were both theoreticians and experimenters (natural philosophers). The body of scientific knowledge has grown in size and complexity, and the tools and skills of theoretical and experimental physicists have become so specialized that it is difficult (if not impossible) to be highly proficient in both areas. While students should be aware of this, they should also know that the free and rapid interplay of theoretical ideas and experimental results in the public scientific literature maintains the crucial links between these fields.

At the school level both theory and experiments should be undertaken by all students. They should complement one another naturally, as they do in the wider scientific community. The Diploma Program physics course allows students to develop traditional practical skills and techniques and increase their abilities in the use of mathematics, which is the language of physics. It also allows students to develop interpersonal and digital communication skills which are essential in modern scientific endeavor and are important life-enhancing, transferable skills in their own right.

Alongside the growth in our understanding of the natural world, perhaps the more obvious and relevant result of physics to most of our students is our ability to change the world. This is the technological side of physics, in which physical principles have been applied to construct and alter the material world to suit our needs, and have had a profound influence on the daily lives of all human beings. This raises the issue of the impact of physics on society, the moral and ethical dilemmas, and the social, economic and environmental implications of the work of physicists. These concerns have become more prominent as our power over the environment has grown, particularly among young people, for whom the importance of the responsibility of physicists for their own actions is self-evident.

Physics is therefore, above all, a human activity, and students need to be aware of the context in which physicists work. Illuminating its historical development places the knowledge and the process of physics in a context of dynamic change, in contrast to the static context in which physics has sometimes been presented. This can give students insights into the human side of physics: the individuals; their personalities, times and social milieux; their challenges, disappointments and triumphs.

The Diploma Program physics course includes the essential principles of the subject but also, through selection of an option, allows teachers some flexibility to tailor the course to meet the needs of their students. The course is available at both SL and HL, and therefore accommodates students who wish to study physics as their major subject in higher education and those who do not.

Syllabus outline

Syllabus component	Recommended Teaching hours	
	SL	HL
Core	95	
1. Measurements and uncertainties	5	
2. Mechanics	22	
3. Thermal physics	11	
4. Waves	15	
5. Electricity and magnetism	15	
6. Circular motion and gravitation	5	
7. Atomic, nuclear and particle physics	14	
8. Energy production	8	
Additional higher level (AHL)		60
9. Wave phenomena		17
10. Fields		11
11. Electromagnetic induction		16
12. Quantum and nuclear physics		16
Option	15	25
1. Relativity	15	25
2. Engineering physics	15	25
3. Imaging	15	25
4. Astrophysics	15	25
Practical scheme of work	40	60

• Practical activities	20	40
• Individual investigation (internal assessment – IA)	10	10
• Group 4 project	10	10
Total teaching hours	150	240

Group 5: Mathematics

Mathematics HL

Mathematics SL

Mathematical Studies SL

Group 5 aims

The aims of all mathematics courses 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.

Introduction

The nature of mathematics can be summarized in a number of ways: for example, it can be seen as a well-defined body of knowledge, as an abstract system of ideas, or as a useful tool. For many people it is probably a combination of these, but there is no doubt that mathematical knowledge provides an important key to understanding the world in which we live. Mathematics can enter our lives in a number of ways: we buy produce in the market, consult a timetable, read a newspaper, time a process or estimate a length. Mathematics, for most of us, also extends into our chosen profession: visual artists need to learn about perspective; musicians need to appreciate the mathematical relationships within and between different rhythms; economists need to recognize trends in financial dealings; and engineers need to take account of stress patterns in physical materials. Scientists view mathematics as a language that is central to our understanding of events that occur in the natural world. Some people enjoy the challenges offered by the logical methods of mathematics and the adventure in reason that mathematical proof has to offer. Others appreciate mathematics as an aesthetic experience or even as a cornerstone of philosophy. This prevalence of mathematics in our lives, with all its interdisciplinary connections, provides a clear and sufficient rationale for making the study of this subject compulsory for students studying the full diploma.

Summary of courses available

Because individual students have different needs, interests and abilities, there are four different courses in mathematics. These courses are designed for different types of students: those who wish to study mathematics in depth, either as a subject in its own right or to pursue their interests in areas related to mathematics; those who wish to gain a degree of understanding and competence to understand better their approach to other subjects; and those who may not as yet be aware how mathematics may be relevant to their studies and in their daily lives. Each course is designed to meet the needs of a particular group of students. Therefore, great care should be taken to select the course that is most appropriate for an individual student.

In making this selection, individual students should be advised to take account of the following factors:

- their own abilities in mathematics and the type of mathematics in which they can be successful
- their own interest in mathematics and those particular areas of the subject that may hold the most interest for them
- their other choices of subjects within the framework of the Diploma Programme
- their academic plans, in particular the subjects they wish to study in future
- their choice of career.

Teachers are expected to assist with the selection process and to offer advice to students.

Mathematical studies SL

This course is available only at standard level, and is equivalent in status to mathematics SL, but addresses different needs. It has an emphasis on applications of mathematics, and the largest section is on statistical techniques. It is designed for students with varied mathematical backgrounds and abilities. It offers students opportunities to learn important concepts and techniques and to gain an understanding of a wide variety of mathematical topics. It prepares students to be able to solve problems in a variety of settings, to develop more sophisticated mathematical reasoning and to enhance their critical thinking. The individual project is an extended piece of work based on personal research involving the collection, analysis and evaluation of data. Students taking this course are well prepared for a career in social sciences, humanities, languages or arts. These students may need to utilize the statistics and logical reasoning that they have learned as part of the mathematical studies SL course in their future studies.

Mathematics SL

This course caters for students who already possess knowledge of basic mathematical concepts, and who are equipped with the skills needed to apply simple mathematical techniques correctly. The majority of these students will expect to need a sound mathematical background as they prepare for future studies in subjects such as chemistry, economics, psychology and business administration.

Mathematics HL

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.

Prior learning

Mathematics is a linear subject, and it is expected that most students embarking on a Diploma Programme (DP) mathematics course will have studied mathematics for at least 10 years. There will be a great variety of topics studied, and differing approaches to teaching and learning. Thus students will have a wide variety of skills and knowledge when they start the mathematics HL course. Most will have some background in arithmetic, algebra, geometry, trigonometry, probability and statistics. Some will be familiar with an inquiry approach, and may have had an opportunity to complete an extended piece of work in mathematics.

At the beginning of the syllabus section there is a list of topics that are considered to be prior learning for the mathematics HL course. It is recognized that this may contain topics that are unfamiliar to some students, but it is anticipated that there may be other topics in the syllabus itself that these students have already encountered. Teachers should plan their teaching to incorporate topics mentioned that are unfamiliar to their students.

Mathematics and the international dimension

Mathematics is in a sense an international language, and, apart from slightly differing notation, mathematicians from around the world can communicate within their field. Mathematics transcends politics, religion and nationality, yet throughout history great civilizations owe their success in part to their mathematicians being able to create and maintain complex social and architectural structures.

Despite recent advances in the development of information and communication technologies, the global exchange of mathematical information and ideas is not a new phenomenon and has been essential to the progress of mathematics. Indeed, many of the foundations of modern mathematics were laid many centuries ago by Arabic, Greek, Indian and Chinese civilizations, among others. Teachers could use timeline websites to show the contributions of different civilizations to mathematics, but not just for their mathematical content. Illustrating the characters and personalities of the mathematicians concerned and the historical context in which they worked brings home the human and cultural dimension of mathematics.

The importance of science and technology in the everyday world is clear, but the vital role of mathematics is not so well recognized. It is the language of science, and underpins most developments in science and technology. A good example of this is the digital revolution, which is transforming the world, as it is all based on the binary number system in mathematics.

Many international bodies now exist to promote mathematics. Students are encouraged to access the extensive websites of international mathematical organizations to enhance their appreciation of the international dimension and to engage in the global issues surrounding the subject.

Mathematics HL

Mathematics HL—course details

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

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

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

Syllabus component	Teaching hours HL
All topics are compulsory. Students must study all the sub-topics in each of the topics in the syllabus as listed in this guide. Students are also required to be familiar with the topics listed as prior learning.	
Topic 1	30
Algebra	
Topic 2	22
Functions and equations	
Topic 3	22

Circular functions and trigonometry	
Topic 4	24
Vectors	
Topic 5	36
Statistics and probability	
Topic 6	48
Calculus	
Option syllabus content	
Students must study all the sub-topics in one of the following options as listed in the syllabus details.	
Topic 7	
Statistics and probability	
Topic 8	48
Sets, relations and groups	
Topic 9	
Calculus	
Topic 10	
Discrete mathematics	
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.	10
Total teaching hours	240

Mathematics SL

Mathematics SL—course details

The course focuses on introducing important mathematical concepts through the development of mathematical techniques. The intention is to introduce students to these concepts in a comprehensible and coherent way, rather than insisting on the mathematical rigour required for mathematics HL. Students should, wherever possible, apply the mathematical knowledge they have acquired to solve realistic problems set in an appropriate context.

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

This course does not have the depth found in the mathematics HL courses. Students wishing to study subjects with a high degree of mathematical content should therefore opt for a mathematics HL course rather than a mathematics SL course.

Syllabus component	Teaching hours SL
All topics are compulsory. Students must study all the sub-topics in each of the topics in the syllabus as listed in this guide. Students are also required to be familiar with the topics listed as prior learning.	
Topic 1	9
Algebra	
Topic 2	24
Functions and equations	
Topic 3	16
Circular functions and trigonometry	
Topic 4	16
Vectors	
Topic 5	35
Statistics and probability	
Topic 6	40
Calculus	
Mathematical exploration	
Internal assessment in mathematics SL is an individual exploration. This is a piece of written work that involves investigating an area of mathematics.	10
Total teaching hours	150

Mathematical Studies SL

Mathematical studies SL—course details

The course syllabus focuses on important mathematical topics that are interconnected. The syllabus is organized and structured with the following tenets in mind: placing more emphasis on student understanding of fundamental concepts than on symbolic manipulation and complex manipulative skills; giving greater emphasis to developing students' mathematical reasoning rather than performing routine operations; solving mathematical problems embedded in a wide range of contexts; using the calculator effectively.

The course includes project work, a feature unique to mathematical studies SL within group 5. Each student completes a project, based on their own research; this is guided and supervised by the teacher. The project provides an opportunity for students to carry out a mathematical study of their choice using their own experience, knowledge and skills acquired during the course. This process allows students to take sole responsibility for a part of their 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 from first principles can be used. As a consequence, students can use their own inherent, logical thinking skills and do not need to rely on standard algorithms and remembered formulae. Students likely to need mathematics for the achievement of further qualifications should be advised to consider an alternative mathematics course.

Owing to the nature of mathematical studies SL, teachers may find that traditional methods of teaching are inappropriate and that less formal, shared learning techniques can be more stimulating and rewarding for students. Lessons that use an inquiry-based approach, starting with practical investigations where possible, followed by analysis of results, leading to the understanding of a mathematical principle and its formulation into mathematical language, are often most successful in engaging the interest of students. Furthermore, this type of approach is likely to assist students in their understanding of mathematics by providing a meaningful context and by leading them to understand more fully how to structure their work for the project.

Syllabus component	Teaching hours
	SL
All topics are compulsory. Students must study all the sub-topics in each of the topics in the syllabus as listed in this guide. Students are also required to be familiar with the topics listed as prior learning.	
Topic 1	
	20
Number and algebra	
Topic 2	
	12
Descriptive statistics	
Topic 3	
	20
Logic, sets and probability	
Topic 4	
	17
Statistical applications	
Topic 5	
	18
Geometry and trigonometry	
Topic 6	
	20
Mathematical models	
Topic 7	
	18
Introduction to differential calculus	
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.	25
Total teaching hours	150

Group 6: The Arts

Theatre HL/SL

Visual Arts HL/SL

Film HL/SL

The arts aims

The aims of the arts subjects are to enable students to:

1. enjoy lifelong engagement with the arts
2. become informed, reflective and critical practitioners in the arts
3. understand the dynamic and changing nature of the arts
4. explore and value the diversity of the arts across time, place and cultures
5. express ideas with confidence and competence
6. develop perceptual and analytical skills.

Theatre aims

In addition, the aims of the theatre course at SL and HL are to enable students to:

7. explore theatre in a variety of contexts and understand how these contexts inform practice (theatre in context)
8. understand and engage in the processes of transforming ideas into action (theatre processes)
9. develop and apply theatre production, presentation and performance skills, working both independently and collaboratively (presenting theatre)

For HL only:

10. understand and appreciate the relationship between theory and practice (theatre in context, theatre processes, presenting theatre).

Visual arts aims

In addition, the aims of the visual arts course at SL and HL are to enable students to:

11. make artwork that is influenced by personal and cultural contexts
12. become informed and critical observers and makers of visual culture and media
13. develop skills, techniques and processes in order to communicate concepts and ideas.

Film aims

The film course at SL and HL aims to develop in students the skills necessary to achieve creative and critical independence in their knowledge, experience and enjoyment of film.

The aims are to promote:

14. an appreciation and understanding of film as a complex art form

15. an ability to formulate stories and ideas in film terms
16. the practical and technical skills of production
17. critical evaluation of film productions by the student and by others
18. a knowledge of film-making traditions in more than one country.

Theatre HL/SL

Theatre is a dynamic, collaborative and live art form. It is a practical subject that encourages discovery through experimentation, the taking of risks and the presentation of ideas to others. It results in the development of both theatre and life skills; the building of confidence, creativity and working collaboratively.

The IB Diploma Programme theatre course is a multifaceted theatre-making course of study. It gives students the opportunity to make theatre as creators, designers, directors and performers. It emphasizes the importance of working both individually and collaboratively as part of an ensemble. It offers the opportunity to engage actively in the creative process, transforming ideas into action as inquisitive and productive artists.

Students experience the course from contrasting artistic perspectives. They learn to apply research and theory to inform and to contextualize their work. The theatre course encourages students to appreciate that through the processes of researching, creating, preparing, presenting and critically reflecting on theatre—as participants and audience members—they gain a richer understanding of themselves, their community and the world.

Through the study of theatre, students become aware of their own personal and cultural perspectives, developing an appreciation of the diversity of theatre practices, their processes and their modes of presentation. It enables students to discover and engage with different forms of theatre across time, place and culture and promotes international-mindedness.

Distinction between SL and HL

The syllabus clearly indicates a differential between SL and HL. It allows for greater breadth and depth in the teaching and learning at HL through an additional assessment task which requires HL students to engage with theatre theorists and their theories.

Theatre and international-mindedness

International-mindedness represents an openness and curiosity about the world and its people. It begins with students understanding themselves in order to effectively connect and collaborate with others. The arts provide a unique opportunity for students to recognize the dynamic cultural influences around them and the significance of diversity in the making of theatre. The IB Diploma Programme theatre course gives students the opportunity to study a wide variety of performance styles, theatre traditions, theatre theorists and play texts. Students are expected to explore and engage with theatre from a variety of contexts. Through creating, investigating, critically analysing and appreciating differing forms and styles, students deepen their understanding of theatre, as well as their knowledge, understanding and experience of the arts within the global community. They become more informed and

reflective, and develop their abilities to become enriched practitioners, communicators, collaborators and creative thinkers. They learn to acknowledge the aspects that appear in all performance forms and theatre traditions, and also to recognize the unique ways in which particular cultures express and represent their values and identity through shared performance.

Culture

For this theatre guide, “culture” is defined as learned and shared beliefs, values, interests, attitudes, products and all patterns of behaviour created by society. This view of culture includes an organized system of symbols, ideas, explanations, beliefs and material production that humans create and manipulate in their daily lives. Culture is dynamic and organic and operates on many levels in the global context—international, national, regional and local, as well as among different social groups within a society. Culture is seen as fluid and subject to change.

Culture can be seen as providing the overall framework within which humans learn to organize their thoughts, emotions and behaviours in relation to their environment, and within this framework “cultural context”, which specifically appears in both the taught syllabus and assessment tasks of the theatre course, refers to the conditions that influence and are influenced by culture. These include social, political, geographical and historical factors.

Prior learning

The theatre course at both SL and HL requires no previous experience.

The course is designed to enable students to experience theatre on a personal level and achievement in this subject is reflected in how students develop, extend and refine the knowledge, skills and attitudes necessary for studying theatre. Students’ individual ability to be creative and imaginative and to communicate in dramatic form will be developed and extended through the theoretical and practical content of the course.

The theatre course provides a relevant learning opportunity for a diverse range of students as it lays an appropriate foundation for further study in theatre, performing arts and other related subjects. In addition, by instilling discipline, and refining communication, creative and collaborative skills it offers a valuable course of study for students who may wish to pursue a career or further education studies in areas unconnected to theatre.

Syllabus outline

Overview of the course

Core areas

The theatre syllabus at SL and HL consists of three equal, interrelated areas:

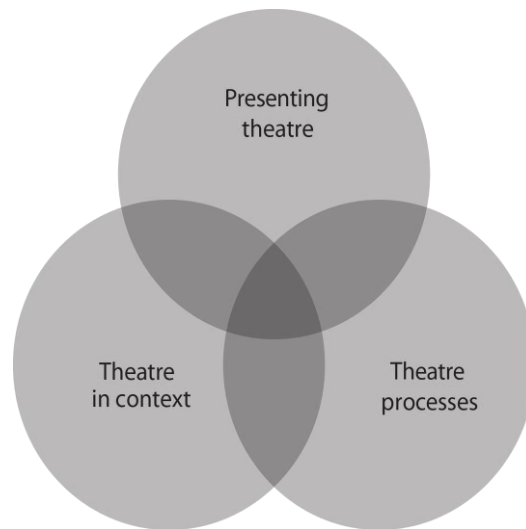


Figure 2

These core areas, which have been designed to fully interlink with the assessment tasks, must be central to the planning and designing of the taught programme developed and delivered by the teacher. Students are required to understand the relationship between these areas and how each area informs and impacts their work in theatre.

Students are required to approach these areas from the perspectives of each of the following specialist theatre roles:

- creator
- designer
- director
- performer.

Theatre in context

This area of the syllabus addresses the students' understanding that theatre does not occur in a vacuum. Students examine the personal, theoretical and cultural contexts that inform theatre-making and the ways in which these affect and influence creating, designing, directing, performing and spectating. Through the theatre in context area, students will:

- understand the contexts that influence, inform and inspire their own work as theatre-makers and that determine the theatre that they choose to make and study
- experience practically and critically appreciate the theoretical contexts that inform different world theatre practices
- be informed about the wider world of theatre and begin to understand and appreciate the many cultural contexts within which theatre is created.

Theatre processes

This area of the syllabus addresses the students' exploration of the skills, techniques and processes involved in theatre-making. Students reflect on their own creative processes and skills acquisition as well as gaining a practical understanding of the processes of others; creators, designers, directors and performers.

Through the theatre processes area, students will:

- be informed about the various processes involved in making theatre from the perspectives of the specialist theatre roles (creator, designer, director and performer)
- observe and reflect on processes used in different theatre traditions and performance practices
- develop a range of skills required to make and participate in theatre.

Presenting theatre

This area of the syllabus addresses the staging and presentation of theatre as well as the presentation of ideas, research and discoveries through diverse modes of presentation, both practical and written. Students consider the impact theatre can have on the spectator. They are encouraged to think about their own artistic intentions as creators, designers, directors and performers and the impact they wish to have on an audience.

Through the presenting theatre area, students will:

- apply their practical theatre skills, either individually or collaboratively, through a range of formats
- present their ideas about theatre and take part in theatre performances
- understand and appreciate how artistic choices can impact on an audience.

These activities link with the core syllabus areas as follows:

		THEATRE IN CONTEXT	THEATRE PROCESSES	PRESENTING THEATRE
HL only	Creating theatre based on theatre theory	At HL, students research and examine the various contexts of at least one theatre theorist.	At HL, students practically explore at least one theatre theorist collaboratively and engage with the process of creating a piece of theatre based on their theory.	At HL, students create, present and evaluate at least one theatre piece based on an aspect(s) of a theatre theorist's work they have explored.
SL and	Working with play texts	Students research and examine the various	Students take part in the practical	Students direct at least one scene or section

SL and HL	Examining world theatre traditions	contexts of at least one published play text and reflect on live theatre moments they have experienced as spectators.	exploration of at least two contrasting published play texts and engage with the process of transforming a play text into action.	from one published play text which is presented to others.
		Students research and examine the various contexts of at least one world theatre tradition.	Students practically examine the performance conventions of at least one world theatre tradition and apply this to the staging of a moment of theatre.	Students present a moment of theatre to others which demonstrates the performance convention(s) of at least one world theatre tradition.
SL and HL	Collaboratively creating original theatre	Students reflect on their own personal approaches, interests and skills in theatre. They research and examine at least one starting point and the approaches employed by one appropriate professional theatre company, and consider how this might influence their own personal approaches.	Students respond to at least one starting point and engage with the process of transforming it collaboratively into an original piece of theatre.	Students participate in at least one production of a collaboratively created piece of original theatre, created from a starting point, which is presented to others.

The theatre journal

From the beginning of the course, and at regular intervals, students at both SL and HL are required to maintain a theatre journal. This is the students' own record of their two years of study and should be used to record:

- challenges and achievements
- creative ideas
- critical analysis and experience of live theatre productions as a spectator
- detailed evaluations
- experiences as a creator, designer, director and performer
- feedback
- reflections

- research
- responses to work seen
- responses to diverse stimuli
- skills acquisition and development.

Students should be encouraged to find the most appropriate ways of recording their development and have free choice in deciding what form the journal should take. The content of the journal should focus specifically on an analysis of learning experiences, rather than being simply a record of triumphs or an exhaustive chronicle of everything the student experiences in theatre. Although elements of the journal may be selected, adapted and presented for assessment, the journal itself is not directly assessed or moderated. It is, however, regarded as a fundamental activity of the course, developing the student's ability to record research, process and reflection, skills that are required in all assessment tasks.

Research

When carrying out research, students should ensure that they consult a suitable range of reliable sources, which may be primary or secondary. At HL level students are required to consult **both** primary and secondary sources in researching a theatre theorist and related theories. The suitability of the sources for each assessment task will depend on its nature and use, and on the play, theory, starting point, convention and context being investigated. As well as the more obvious sources (books, websites, videos, DVDs, articles) research may also include live experiences and encounters such as workshops, lectures, correspondence with experts and performances. All sources consulted during the course must be cited following the protocol of the referencing style chosen by the school and be presented in a bibliography or as footnotes.

Please note that each of the assessment tasks for theatre require a separate list of sources to be submitted as part of the formal requirements.

Visual Arts HL/SL

The visual arts are an integral part of everyday life, permeating all levels of human creativity, expression, communication and understanding. They range from traditional forms embedded in local and wider communities, societies and cultures, to the varied and divergent practices associated with new, emerging and contemporary forms of visual language. They may have sociopolitical impact as well as ritual, spiritual, decorative and functional value; they can be persuasive and subversive in some instances, enlightening and uplifting in others. We celebrate the visual arts not only in the way we create images and objects, but also in the way we appreciate, enjoy, respect and respond to the practices of art-making by others from around the world. Theories and practices in visual arts are dynamic and ever-changing, and connect many areas of knowledge and human experience through individual and collaborative exploration, creative production and critical interpretation.

The IB Diploma Programme visual arts course encourages students to challenge their own creative and cultural expectations and boundaries. It is a thought-provoking course in which students develop analytical skills in problem-solving and divergent thinking, while working towards technical proficiency and confidence as art-makers. In addition to exploring and comparing visual arts from different perspectives and in different contexts, students are

expected to engage in, experiment with and critically reflect upon a wide range of contemporary practices and media. The course is designed for students who want to go on to study visual arts in higher education as well as for those who are seeking lifelong enrichment through visual arts.

Supporting the International Baccalaureate mission statement and learner profile, the course encourages students to actively explore the visual arts within and across a variety of local, regional, national, international and intercultural contexts. Through inquiry, investigation, reflection and creative application, visual arts students develop an appreciation for the expressive and aesthetic diversity in the world around them, becoming critically informed makers and consumers of visual culture.

Distinction between SL and HL

The visual arts syllabus demonstrates a clear distinction between the course at SL and at HL, with additional assessment requirements at HL that allow for breadth and greater depth in the teaching and learning. The assessment tasks require HL students to reflect on how their own work has been influenced by exposure to other artists and for them to experiment in greater depth with additional art-making media, techniques and forms. HL students are encouraged to produce a larger body of resolved works and to demonstrate a deeper consideration of how their resolved works communicate with a potential viewer.

Visual arts and international-mindedness

International-mindedness represents an openness and curiosity about the world and its people. It begins with students understanding themselves in order to effectively connect with others. The arts provide a unique opportunity for students to recognize the dynamic cultural influences around them. The IB Diploma Programme visual arts course gives students the opportunity to study a wide variety of visual arts disciplines and forms. Students are expected to explore and engage with art from a variety of contexts. Through making, investigating and critically analysing and appreciating differing art forms, students deepen their understanding of the visual arts, as well as their knowledge, understanding and experience of the visual arts within the global community. They become more informed and reflective, and develop their abilities to become enriched practitioners, communicators and visual thinkers. They learn to acknowledge the aspects that appear in all art forms and art cultures, and also to recognize the unique ways in which particular cultures express and represent their values and identity visually.

Culture

For the purposes of this visual arts guide, “culture” is defined as learned and shared beliefs, values, interests, attitudes, products and all patterns of behaviour created by society. This view of culture includes an organized system of symbols, ideas, explanations, beliefs and material production that humans create and manipulate in their daily lives. Culture is dynamic and organic, operating on many levels in the global context—international, national, regional and local, as well as among different social groups within a society. Culture is seen as fluid and subject to change.

Culture can be seen as providing the overall framework within which humans learn to organize their thoughts, emotions and behaviours in relation to their environment, and within this framework “cultural context”, which specifically appears in both the taught syllabus and assessment tasks of the visual arts course, refers to the conditions that influence and are influenced by culture. These include historical, geographical, political, social and technological factors.

Prior learning

The visual arts course at both SL and HL requires no previous experience however; ASD has set some pre-requisite work to ensure students are adequately prepared for the rigors of the course. The course is designed to enable students to experience visual arts on a personal level and achievement in this subject is reflected in how students demonstrate the knowledge they have gained as well as the skills and attitudes they have developed that are necessary for studying visual arts. Students’ individual abilities to be creative and imaginative and to communicate in artistic form will be developed and extended through the theoretical and practical content of the visual arts course.

The visual arts course provides a relevant learning opportunity for a diverse range of students as it lays an appropriate foundation for further study in visual arts, performing arts and other related subjects. In addition, by instilling discipline and refining creative communication and collaborative skills, it offers a valuable course of study for students who may wish to pursue a career or further education studies in areas unconnected to the arts.

Core areas

The visual arts core syllabus at SL and HL consists of three equal interrelated areas as shown in figure 2.

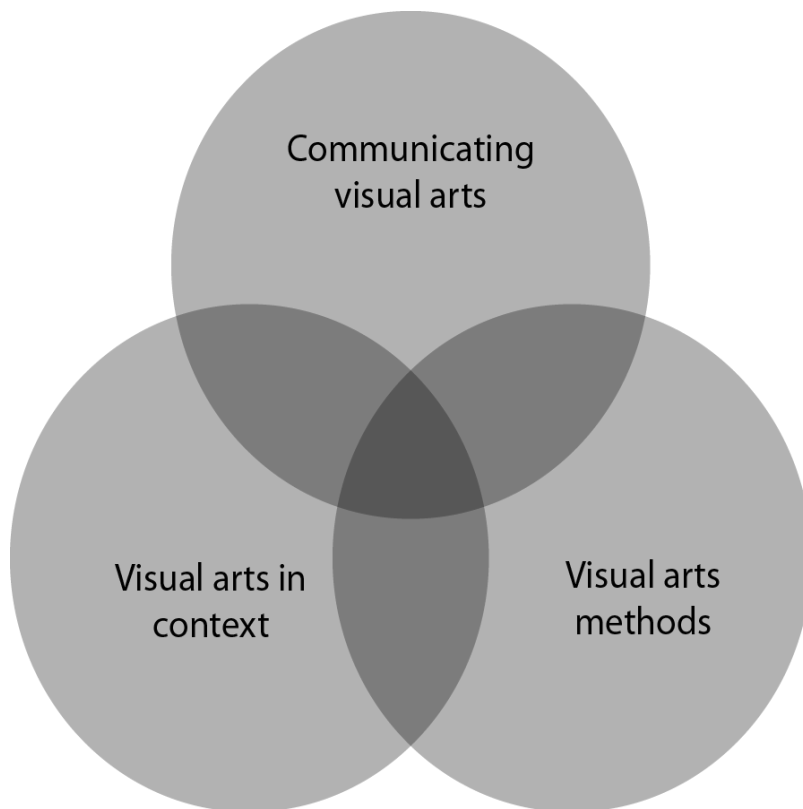


Figure 2

These core areas, which have been designed to fully interlink with the assessment tasks, must be central to the planning of the taught course that is designed and delivered by the teacher. Students are required to understand the relationship between these areas and how each area informs and impacts their work in visual arts.

Visual arts in context

The visual arts in context part of the syllabus provides a lens through which students are encouraged to explore perspectives, theories and cultures that inform and influence visual arts practice. Students should be able to research, understand and appreciate a variety of contexts and traditions and be able to identify links between them.

Through the visual arts in context area, students will:

- be informed about the wider world of visual arts and they will begin to understand and appreciate the cultural contexts within which they produce their own works
- observe the conventions and techniques of the artworks they investigate, thinking critically and experimenting with techniques, and identifying possible uses within their own art-making practice
- investigate work from a variety of cultural contexts and develop increasingly sophisticated, informed responses to work they have seen and experienced.

Visual arts methods

The visual arts methods part of the syllabus addresses ways of making artwork through the exploration and acquisition of skills, techniques and processes, and through engagement with a variety of media and methods.

Through the visual arts methods area, students will:

- understand and appreciate that a diverse range of media, processes, techniques and skills are required in the making of visual arts, and how and why these have evolved
- engage with the work of others in order to understand the complexities associated with different art-making methods and use this inquiry to inspire their own experimentation and art-making practice
- understand how a body of work can communicate meaning and purpose for different audiences.

Communicating visual arts

The communicating visual arts part of the syllabus involves students investigating, understanding and applying the processes involved in selecting work for exhibition and public display. It engages students in making decisions about the selection of their own work.

Through the communicating visual arts area, students will:

- understand the many ways in which visual arts can communicate and appreciate that presentation constructs meaning and may influence the way in which individual works are valued and understood
- produce a body of artwork through a process of reflection and evaluation and select artworks for exhibition, articulating the reasoning behind their choices and identifying the ways in which selected works are connected
- explore the role of the curator; acknowledging that the concept of an exhibition is wide ranging and encompasses many variables, but most importantly, the potential impact on audiences and viewers.

The table below shows how these activities link with the core syllabus areas at both SL and HL.

	Visual arts in context	Visual arts methods	Communicating visual arts
Theoretical practice	Students examine and compare the work of artists from different cultural contexts.	Students look at different techniques for making art.	Students explore ways of communicating through visual and written means.
	Students consider the contexts influencing their own work and the work of others.	Students investigate and compare how and why different techniques have evolved and the processes involved.	Students make artistic choices about how to most effectively communicate knowledge and understanding.

Art-making practice	Students make art through a process of investigation, thinking critically and experimenting with techniques.	Students experiment with diverse media and explore techniques for making art.	Students produce a body of artwork through a process of reflection and evaluation, showing a synthesis of skill, media and concept.
	Students apply identified techniques to their own developing work.	Students develop concepts through processes that are informed by skills, techniques and media.	
	Students develop an informed response to work and exhibitions they have seen and experienced.	Students evaluate how their ongoing work communicates meaning and purpose.	
Curatorial practice	Students begin to formulate personal intentions for creating and displaying their own artworks.	Students consider the nature of “exhibition” and think about the process of selection and the potential impact of their work on different audiences.	Students explain the ways in which the works are connected.
			Students discuss how artistic judgments impact the overall presentation.

To fully prepare students for the demands of the assessment tasks teachers should ensure that their planning addresses each of the syllabus activities outlined above, the content and focus of which is not prescribed. The connections between the syllabus areas and the assessment tasks can be seen in the table in the section “Linking the visual arts core syllabus areas to the assessment tasks”.

The visual arts journal

Throughout the course students at both SL and HL are required to maintain a visual arts journal. This is their own record of the two years of study and should be used to document:

- the development of art-making skills and techniques
- experiments with media and technologies
- personal reflections
- their responses to first-hand observations
- creative ideas for exploration and development
- their evaluations of art practices and art-making experiences
- their responses to diverse stimuli and to artists and their works
- detailed evaluations and critical analysis
- records of valued feedback received
- challenges they have faced and their achievements.

Students should be encouraged to find the most appropriate ways of recording their development and have free choice in deciding what form the visual arts journal should take. The aim of the visual arts journal is to support and nurture the acquisition of skills and ideas, to record developments, and to critique challenges and successes. It is expected that much of

the written work submitted for the assessment tasks at the end of the course will have evolved and been drawn from the contents of the visual arts journal.

Although sections of the journal will be selected, adapted and presented for assessment, the journal itself is not directly assessed or moderated. It is, however, regarded as a fundamental activity of the course.

Art-making forms

Throughout the course students are expected to experience working with a variety of different art-making and conceptual forms. SL students should, as a minimum, experience working with at least two art-making forms, each selected from separate columns of the table below. HL students should, as a minimum, experience working with at least three art-making forms, selected from a minimum of two columns of the table below. The examples given are for guidance only and are not intended to represent a definitive list.

Two-dimensional forms	Three-dimensional forms	Lens-based, electronic and screen-based forms
<ul style="list-style-type: none"> • Drawing: such as charcoal, pencil, ink • Painting: such as acrylic, oil, watercolour • Printmaking: such as relief, intaglio, planographic, chine collé • Graphics: such as illustration and design 	<ul style="list-style-type: none"> • Sculpture: such as ceramics, found objects, wood, assemblage • Designed objects: such as fashion, architectural, vessels • Site specific/ephemeral: such as land art, installation, mural • Textiles: such as fibre, weaving, printed fabric 	<ul style="list-style-type: none"> • Time-based and sequential art: such as animation, graphic novel, storyboard • Lens media: such as still, moving, montage • Digital/screen based: such as vector graphics, software generated

Interaction and engagement with local artists or collections as well as visits to museums, galleries, exhibitions and other kinds of presentations provide valuable first-hand opportunities for investigation and should be used to inform student work wherever possible. Personal responses to these experiences should be documented in the visual arts journal.

Research

When carrying out research, students should be encouraged to consult a suitable range of primary and secondary sources. As well as the more obvious sources (books, websites, videos, DVDs, articles) research may also include art-making experiences and encounters such as workshops, lectures, correspondence with experts and visits to exhibitions. All sources consulted during the course must be cited following the protocol of the referencing style chosen by the school and be presented in a bibliography or as footnotes.

Film

Nature of the subject

Film is both a powerful communication medium and an art form. The Diploma Programme film course aims to develop students' skills so that they become adept in both interpreting and making film texts.

Through the study and analysis of film texts and exercises in film-making, the Diploma Programme film course explores film history, theory and socio-economic background. The course develops students' critical abilities, enabling them to appreciate the multiplicity of cultural and historical perspectives in film. To achieve an international understanding within the world of film, students are taught to consider film texts, theories and ideas from the points of view of different individuals, nations and cultures.

The IB film course emphasizes the importance of working individually and as a member of a group. Students are encouraged to develop the professional and technical skills (including organizational skills) needed to express themselves creatively in film. A challenge for students following this course is to become aware of their own perspectives and biases and to learn to respect those of others. This requires willingness to attempt to understand alternative views, to respect and appreciate cultural diversity, and to have an open and critical mind. Thus, the IB film course can become a way for the student to celebrate the international and intercultural dynamic that inspires and sustains a type of contemporary film, while appreciating specifically local origins that have given rise to cinematic production in many parts of the world.

For any student to create, to present and to study film requires courage, passion and curiosity: courage to create individually and as part of a team, to explore ideas through action and harness the imagination, and to experiment; passion to communicate and to act communally, and to research and formulate ideas eloquently; curiosity about self and others and the world around them, about different traditions, techniques and knowledge, about the past and the future, and about the limitless possibilities of human expression through film.

At the core of the IB film course lies a concern with clarity of understanding, critical thinking, reflective analysis, effective involvement and imaginative synthesis that is achieved through practical engagement in the art and craft of film.

Distinction between SL and HL

Although the standard level (SL) and higher level (HL) syllabus outlines share elements, there is a clear distinction between both the explicit and implicit demands at these levels. Through a variety of teaching approaches, including the construction and deconstruction of film texts, all students, whether SL or HL, are encouraged to develop their creative and critical abilities and to enhance their appreciation and enjoyment of film.

The differentials between SL and HL are both quantitative and qualitative. The nature of the course enables HL students to develop creative skills, theoretical understanding and textual analysis more fully. An HL student should display a continuous resolve of personal challenge and a sustained engagement with the ideas, practices and concepts encountered within the

course over the extended learning time available. An HL student has extra time for these encounters, extra time to reflect and to record evidence of growth. It is understood that ensuing developments may be only partially evident within the framework of the assessment process.

Course requirements

Syllabus component	SL	HL
Textual analysis	Study one extract, of approximately 5 minutes, from a prescribed film and offer a detailed textual analysis of the extract within the context of the film as a whole	Study one extract, of approximately 5 minutes, from a prescribed film and offer a detailed textual analysis of the extract within the context of the film as whole
Film theory and history	Study of at least two films from more than one country	Study of at least four films from more than one country
Creative process (Film production)	Create and produce an original film as part of a team or as an individual	1. Create and produce an original film as part of a team or as an individual 2. Create an individual trailer for the film production

Assessment requirements

Assessment component	SL	HL
External assessment		
Independent study	Rationale, script and annotated list of sources for a documentary production of 8–10 pages	Rationale, script and annotated list of sources for a documentary production of 12–15 pages
Presentation	An oral presentation of a detailed textual analysis of an extract from a prescribed film of up to a maximum of 10 minutes	An oral presentation of a detailed textual analysis of an extract from a prescribed film of up to a maximum of 15 minutes
Internal assessment		
Film production	One completed film project of 4–5 minutes including titles	One completed film project of 6–7 minutes including titles An associated trailer of 40–60 seconds Rationale for film of no more than 100 words
Documentation in relation to the film production	Rationale of no more than 100 words Written commentary of no more than 1,200 words	Rationale for trailer of no more than 100 words Written commentary of no more than 1,750 words

External assessment criteria

Independent study	Individual SL markband descriptors	Individual HL markband descriptors
Presentation	Individual SL markband descriptors	Individual HL markband descriptors
Internal assessment criteria		
	Five assessment criteria:	Five assessment criteria:
	A—Planning and research	A—Planning and research
Production portfolio	B—Reflection and evaluation	B—Reflection and evaluation
(Film productions and supporting written documentation)	C—Professional and technical skills	C—Professional and technical skills
	D—Effective use of film language	D—Effective use of film language
	E—Originality and creativity	E—Originality and creativity

Prior learning

The IB film course recognizes that all students come to the course with previously acquired knowledge and experience in a wide range of areas. Indeed, the integration of this “personal backpack” into the two-year learning journey is a fundamental element considered in the construction of an IB film course.

However, access to the course does not depend upon prior learning in film. Since the course is designed to enable a student personally to experience film, growth in the discipline is reflected in how that student develops, extends and refines the knowledge, skills and attitudes necessary for the pursuance of the art form. This individual perspective is reflected in the criterion-based approach to assessment that allows students to calibrate their own personal development over the two years.

Students’ individual ability to be creative, imaginative and to communicate in film form is challenged and extended through the theoretical and practical content of the course.

The IB film course presents a relevant learning opportunity for a diverse range of students as it lays an appropriate foundation for further study in film and other related subjects. In addition, by instilling discipline, honing group skills and refining communication tools, the IB film course offers a valuable course of study for students who may wish to follow other fields in tertiary education or other career pathways.

Syllabus outline

Syllabus component	Teaching hours	
	SL	HL
Part 1: Textual analysis		
The detailed study of film sequences.	37.5	60
Part 2: Film theory and history		
The study of films and film-making traditions from more than one country.	37.5	60
Part 3: Creative process—techniques and organization of production		
The development of creative, analytical and production skills within film-making.	75	120
Total teaching hours	150	240

The Core

Creativity, Activity and Service (CAS)

Theory of Knowledge (ToK)

Extended Essay (EE)

The nature of creativity, activity, service (CAS)

...if you believe in something, you must not just think or talk or write, but must act.

Peterson (2003)

Creativity, activity, service (CAS) is at the heart of the Diploma Program. It is one of the three essential elements in every student's Diploma Program experience. It involves students in a range of activities alongside their academic studies throughout the Diploma Program. The three strands of CAS, which are often interwoven with particular activities, are characterized as follows.

Creativity: arts, and other experiences that involve creative thinking.

Activity: physical exertion contributing to a healthy lifestyle, complementing academic work elsewhere in the Diploma Program.

Service: an unpaid and voluntary exchange that has a learning benefit for the student. The rights, dignity and autonomy of all those involved are respected.

CAS enables students to enhance their personal and interpersonal development through experiential learning. At the same time, it provides an important counterbalance to the academic pressures of the rest of the Diploma Program. A good CAS program should be both challenging and enjoyable, a personal journey of self-discovery. Each individual student has a different starting point, and therefore different goals and needs, but for many their CAS activities include experiences that are profound and life-changing.

For student development to occur, CAS should involve:

- real, purposeful activities, with significant outcomes
- personal challenge—tasks must extend the student and be achievable in scope
- thoughtful consideration, such as planning, reviewing progress, reporting
- reflection on outcomes and personal learning.

All proposed CAS activities need to meet these four criteria. It is also essential that they do not replicate other parts of the student's Diploma Program work.

Concurrency of learning is important in the Diploma Program. Therefore, CAS activities should continue on a regular basis for as long as possible throughout the program, and certainly for at least 18 months.

Successful completion of CAS is a requirement for the award of the IB diploma. CAS is not formally assessed but students need to document their activities and provide evidence that

they have achieved eight key learning outcomes. A school's CAS program is regularly monitored by the relevant regional office.

International dimensions

The aim of all IB programs 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 learner profile booklet (March 2006)

Creating “a better and more peaceful world” is a large aim. Working towards it should be seen as involving many small steps, which may be taken locally, nationally or internationally. It is important to see activities in a broader context, bearing in mind the maxim “Think globally, act locally”. Working with people from different social or cultural backgrounds in the vicinity of the school can do as much to increase mutual understanding as large international projects.

CAS and ethical education

There are many definitions of ethical education. The more interesting ones acknowledge that it involves more than simply “learning about ethics”. Meaningful ethical education—the development of ethical beings—happens only when people's feelings and behavior change, as well as their ideas.

Because it involves real activities with significant outcomes, CAS provides a major opportunity for ethical education, understood as involving principles, attitudes and behavior. The emphasis in CAS is on helping students to develop their own identities, in accordance with the ethical principles embodied in the IB mission statement and the IB learner profile. Various ethical issues will arise naturally in the course of CAS activities, and may be experienced as challenges to a student's ideas, instinctive responses or ways of behaving (for example, towards other people). In the context of CAS, schools have a specific responsibility to support students' personal growth as they think, feel and act their way through ethical issues.

Aims

Within the Diploma Program, CAS provides the main opportunity to develop many of the attributes described in the IB learner profile. For this reason, the aims of CAS have been written in a form that highlights their connections with the IB learner profile.

The CAS program aims to develop students who are:

- reflective thinkers—they understand their own strengths and limitations, identify goals and devise strategies for personal growth
- willing to accept new challenges and new roles
- aware of themselves as members of communities with responsibilities towards each other and the environment
- active participants in sustained, collaborative projects

- balanced—they enjoy and find significance in a range of activities involving intellectual, physical, creative and emotional experiences.

Theory of Knowledge (ToK)

Nature of the subject

TOK plays a special role in the Diploma Program by providing an opportunity for students to reflect on the nature of knowledge. The task of TOK is to emphasize connections between areas of knowledge and link them to the knower in such a way that the knower can become aware of his or her own perspectives and those of the various groups whose knowledge he or she shares. TOK, therefore, explores both the personal and shared aspects of knowledge and investigates the relationships between them.

The raw material of TOK is knowledge itself. Students think about how knowledge is arrived at in the various disciplines, what the disciplines have in common and the differences between them. The fundamental question of TOK is “how do we know that?” The answer might depend on the discipline and the purpose to which the knowledge is put. TOK explores methods of inquiry and tries to establish what it is about these methods that makes them effective as knowledge tools. In this sense, TOK is concerned with knowing about knowing.

The individual knower has to try to make sense of the world and understand his or her relationship to it. He or she has at his or her disposal the resources of the areas of knowledge, for example, the academic disciplines studied in the Diploma Program. He or she also has access to ways of knowing such as memory, intuition, reason and sense perception that help us navigate our way in a complex world.

It is easy to be bewildered by the sheer diversity of the knowledge on offer. For example:

- In physics, experiment and observation seem to be the basis for knowledge. The physicist might want to construct a hypothesis to explain observations that do not fit current thinking and devises and performs experiments to test this hypothesis. Results are then collected and analysed and, if necessary, the hypothesis modified to accommodate them.
- In history there is no experimentation. Instead, documentary evidence provides the historian with the raw material for interpreting and understanding the recorded past of humanity. By studying these sources carefully, a picture of a past event can be built up along with ideas about what factors might have caused it.
- In a literature class students set about understanding and interpreting a text. No observation of the outside world is necessary, but there is a hope that the text can shed some light upon deep questions about what it is to be human in a variety of world situations or can act as a critique of the way in which we organize our societies.
- Economics, by contrast, considers the question of how human societies allocate scarce resources. This is done by building elaborate mathematical models based upon a mixture of reasoning and empirical observation of relevant economic factors.
- In the islands of Micronesia, a steersman successfully navigates between two islands 1,600 km apart without a map or a compass.

In each case above there is clearly knowledge at work, although the collection as a whole illustrates a wide variety of different types of knowledge. The task of TOK is to examine different areas of knowledge and find out what makes them different and what they have in common.

At the centre of the course is the idea of **knowledge questions**. These are questions such as:

- what counts as evidence for X?
- what makes a good explanation in subject Y?
- how do we judge which is the best model of Z?
- how can we be sure of W?
- what does theory T mean in the real world?
- how do we know whether it is right to do S?

While these questions could seem slightly intimidating in the abstract, they become much more accessible when dealt with in specific practical contexts within the TOK course. They arise naturally in the subject areas, the extended essay and CAS. The intention is that these contexts provide concrete examples of knowledge questions that should promote student discussion.

Discussion forms the backbone of the TOK course. Students are invited to consider knowledge questions against the backdrop of their experiences of knowledge in their other Diploma Program subjects but also in relation to the practical experiences offered by CAS and the formal research that takes place for the extended essay. The experiences of the student outside school also have a role to play in these discussions, although TOK seeks to strike a balance between the shared and personal aspects of knowledge.

Recognizing the discursive aspect of the course, the TOK presentation assesses the ability of the student to apply TOK thinking to a real-life situation. The TOK essay gives the opportunity to assess more formal argumentation prompted by questions of a more general nature.

TOK is a course in critical thinking but it is one that is specifically geared to an approach to knowledge that is mindful of the interconnectedness of the modern world. “Critical” in this context implies an analytical approach prepared to test the support for knowledge claims, aware of its own weaknesses, conscious of its perspectives and open to alternative ways of answering knowledge questions. It is a demanding course but one that is an essential component not only of the Diploma Program but of lifelong learning.

TOK and international-mindedness

“Teachers open the door, but you must enter by yourself.”

Chinese proverb

Knowledge can be seen as the shared legacy of mankind, a legacy which has been shaped and influenced by a wide range of cultures. This era of increased global interconnectedness promises unprecedented possibilities for interaction and enhancement of mutual understanding arising from the nurturing of international-mindedness.

The Chinese anticipated a period of “Tai”, a time when communication between individuals and the world at large is totally open and people are receptive to new ideas. The TOK course provides an ideal vehicle for such global exchange and beneficial action through its examination of shared and personal knowledge in an atmosphere of critical and reflective inquiry.

We have inherited rich traditions from indigenous knowledge systems, stretching back to the origins of our societies and cultures. Africa, where the human adventure began, has transmitted a treasure trove of wisdom. The Swahili proverb *akili ni mali* (“intelligence is wealth”) and the Gikuyu saying, “wisdom is ahead of might”, represent the clear call for the primacy of good thinking for humans to survive and flourish. Early African cultures celebrated diversity, a model for our times. The Asante proverb from West Africa *tenabea nyinaa nse* reminds us that all dwelling places are not alike and the Swahili *kila ndege huruka na mbawa zake* encourages every bird to fly with its own wings.

Responsible action underpins this respect for diversity. This is also seen in the Australian aboriginal idea of “Dreamtime”, which promotes a sophisticated ecological perspective, including a celebration of nature’s bounty in multiple art forms and careful stewardship of the earth’s resources.

Ancient Asian civilizations have bequeathed profound insights which continue to guide our thinking. The Chinese were among the first cultures to recognize knowledge (“Shi”), its power, and the deep respect for learning and the wise sage figure permeates educational systems in that part of the world. The understanding of the self is seen as the essential foundation to effective membership and action in ever expanding spheres of community. The Indian concept of “Brahman” links the individual knower to a boldly conceived “universal spirit”, a sense of human and cosmic unity.

The Chinese sage, Confucius, inspired a tradition of inclusive and merit-based education allied to critical thinking: “A gentleman can see a question from all sides without bias”. Inheriting the inquiring spirit of Indian Vedanta, the Buddha boldly linked human suffering and dissatisfaction not only to a craving for physical and worldly pleasures but also to an attachment to ideas, opinions, and beliefs, to be replaced by a more dynamic and open-minded approach to knowledge construction. Greek thinkers introduced the notion of political democracy and the important foundations of modern science and mathematics, while their dramatists confronted audiences with complex characters and multiple perspectives. The deep understandings of these traditions were preserved and enriched in the golden age of Islamic civilization in the 10th to 12th centuries CE, a renaissance of learning and artistic flowering that continues to inspire our knowledge quest.

Students and teachers today are the inheritors of this grand journey. The path ahead, as usual, presents us with both opportunities and challenges. The TOK classroom invites a unique partnership of learning, for global controversies often rest on significant knowledge questions that can provide useful starting points for TOK exploration and TOK, in turn, can contribute significantly to the understanding of these large questions. The IB vision of internationally minded individuals implies a global engagement, embodying a commitment to address these 21st century challenges. TOK exists at the very core of the quest, as we strive toward an enlightened and fulfilled humanity.

Prior learning

The TOK course requires no specific prior learning. No particular background in terms of specific subjects studied for national or international qualifications is expected or required.

Aims

The overall aim of TOK is to encourage students to formulate answers to the question “how do you know?” in a variety of contexts, and to see the value of that question. This allows students to develop an enduring fascination with the richness of knowledge.

Specifically, the aims of the TOK course are for students to:

1. make connections between a critical approach to the construction of knowledge, the academic disciplines and the wider world
2. develop an awareness of how individuals and communities construct knowledge and how this is critically examined
3. develop an interest in the diversity and richness of cultural perspectives and an awareness of personal and ideological assumptions
4. critically reflect on their own beliefs and assumptions, leading to more thoughtful, responsible and purposeful lives
5. understand that knowledge brings responsibility which leads to commitment and action.

Extended Essay (EE)

The extended essay is an in-depth study of a focused topic chosen from the list of approved Diploma Program subjects—normally one of the student’s six chosen subjects for the IB diploma. It is intended to promote high-level research and writing skills, intellectual discovery and creativity. It provides students with an opportunity to engage in personal research in a topic of their own choice, under the guidance of a supervisor (a teacher in the school). This leads to a major piece of formally presented, structured writing, in which ideas and findings are communicated in a reasoned and coherent manner, appropriate to the subject chosen. It is recommended that completion of the written essay is followed by a short, concluding interview, or *viva voce*, with the supervisor.

The extended essay is assessed against common criteria, interpreted in ways appropriate to each subject.

The extended essay is:

- compulsory for all Diploma Program students
- externally assessed and, in combination with the grade for theory of knowledge, contributes up to three points to the total score for the IB diploma
- a piece of independent research/investigation on a topic chosen by the student in cooperation with a supervisor in the school
- chosen from the list of approved Diploma Program subjects, published in the *Handbook of procedures for the Diploma Program*

- presented as a formal piece of scholarship containing no more than 4,000 words
- the result of approximately 40 hours of work by the student
- concluded with a short interview, or *viva voce*, with the supervising teacher (recommended).

In the Diploma Program, the extended essay is the prime example of a piece of work where the student has the opportunity to show knowledge, understanding and enthusiasm about a topic of his or her choice. In those countries where it is the norm for interviews to be required prior to acceptance for employment or for a place at university, the extended essay has often proved to be a valuable stimulus for discussion.

Prior learning

The extended essay is a unique task for all DP students. Whilst no particular background is needed as a formal requirement for undertaking the extended essay, students are strongly recommended to carry out research in a subject area they are currently studying in the Diploma Program to ensure that they have sufficient subject knowledge to complete the task. For those students completing a world studies extended essay it is also strongly recommended that they are undertaking a course of study in at least one of the subjects chosen for their essay. A familiarity with research methods would be an advantage. However, when students begin the extended essay, part of the process is to develop an understanding of the methodology most appropriate for their research question. Developing this understanding will be undertaken with the support and guidance of their supervisor.

International dimensions

Some extended essay subjects include cross-cultural questions within them. Others invite such an approach. Whatever the subject, the extended essay student should strive to find relevant information from a diverse range of sources.

The aims of the extended essay are to provide students with the opportunity to:

- pursue independent research on a focused topic
- develop research and communication skills
- develop the skills of creative and critical thinking
- engage in a systematic process of research appropriate to the subject
- experience the excitement of intellectual discovery.

The Diploma Program: A Summary of Frequently Asked Questions

What is required for the award of the Diploma?

To be eligible for the award of the Diploma, all candidates must:

- 1) Complete a course of study drawn from each of the six groups;
- 2) Complete at least three and not more than four of the six subjects at higher level and others at standard level;
- 3) Achieve a minimum of 24 points out of a maximum total of 45, having also met a number of other criteria, including at least 12 points at HL, no 2 in a HL subject, and no more than three Grade 3 or below;
- 4) Submit an Extended Essay in one of the subjects of the IB curriculum;
- 5) Follow a course in Theory of Knowledge;
- 6) Achieve at least a D grade in both the EE and ToK;
- 7) Complete all CAS (Creativity, Action, Service) requirements.

How is the Diploma Assessed?

Each examined subject is graded on a scale of 1 (minimum) to 7 (maximum). Grades reflect attainment of knowledge and skills relative to set standards applied equally to all schools.

Top grades are not, for example, awarded to a certain percentage of students. A variety of assessment methods is used to value both the content and the process of academic achievement and to take into account different learning styles and cultural patterns.

Assessment of work is both internal and external. All subject teachers are trained by the IB to administer and mark internally assessed tasks. Such internal assessments are moderated by external assessors. Internal assessments include essays, mathematical portfolios, oral language exams and, fieldwork assignments and practical and investigative work in the sciences. Conventional external examinations techniques are chosen from a range of options. These include oral and written examinations, long and short responses, data based questions, essays and multiple choice questions. Responsibility for all academic judgments about the quality of a candidate's work rests with more than 2100 examiners worldwide, led by chief examiners with international authority.

How difficult is it to obtain the IB Diploma?

Each year approximately 80% of candidates who attempt the Diploma succeed in earning it.

Is the IB Diploma accepted by universities worldwide?

The IB Diploma holders gain admission to selective universities throughout the world. These include well-known European and American institutions such as Oxford, Yale and the Sorbonne in addition to prestigious centers in Latin America and the Asia Pacific region. Formal agreements exist between the IB and many ministries of education and private institutions. Some colleges and universities may offer advanced standing or course credit to students with strong IB examination results.

It is important that individual students ascertain precisely the requirements of their chosen university with regard to the IB Diploma as soon as appropriate. Subject choice and level of study may need to be chosen with university requirements in mind. Please consult an ASD Counselor if you have any questions about university entrance requirements.

What does ASD expect of our diploma students?

- Critical thinking
- Hard work
- A desire to know more, and an engagement with all aspects of the program
- Self-discipline and responsibility
- Enjoyment of the challenge of opportunity
- The ability to learn from fellow students as well as teachers
- To approach tasks with a seriousness of purpose
- To be challenged, excited and delighted, but also sometimes to be disappointed and exasperated
- To be caring, reflective, balanced, principled, and communicator and a risk-taker
- Reflect on and develop efficient time management and organizational skills

Appendix 1: Academic Honesty – The ASD policy

Academic Honesty Guidelines

Mutual trust and intellectual honesty are essential in an educational environment. This spirit embodies the core values shared by all members of the ASD school community. Our Academic Honesty Guidelines define the importance and meaning of academic honesty, clarify the expectations placed upon students, parents, administrators and teachers, and articulate a range of consequences.

The fundamental beliefs underlying and reflected in this document are:

- The ASD values of responsibility, respect, honesty and compassion encourage an academically honest ethos at our school.
- Every student has the right to an academic environment that is free from the injustices caused by academic dishonesty.
- All members of ASD's community contribute to its academic integrity.
- All members of ASD's community should be involved in supporting and modeling Academic Honesty principles and expectations.

Expectations of the American School of Doha Community with Regard to Academic Honesty

Each **STUDENT** will maintain and support academic integrity at ASD by:

- completing all assigned work, activities and tests in an honorable way - one that avoids all forms of malpractice and avoids collusion.
- understanding the school-wide Academic Honesty guidelines and individual teacher assignment guidelines
- clarifying with the teacher anything that may be unclear about an assignment, with respect to how these guidelines may apply to it
- encouraging fellow students to support and adhere to these guidelines.

Each **TEACHER** will maintain and support academic integrity at ASD by:

- clearly presenting the school-wide Academic Honesty principles to show how they apply to that teacher's class
- providing explicit guidelines for working on assignments in each class, particularly providing examples of acceptable collaboration (if any) versus collusion.
- providing guidelines for parent/tutor help on NESAs Virtual School (This can be as simple as placing this document on your NESAs page at the beginning of the year or referring to specific sections for particular assignments)
- appropriately reporting ALL violations
- maintaining classroom vigilance and the integrity of the testing process
- explaining the use and limits of permissible study aids in coursework
- using appropriate tools for teaching and for detecting plagiarism

Each **ADMINISTRATOR** will maintain and support academic integrity at ASD by:

- making available to all students, teachers, and parents a copy of this document
- facilitating ongoing conversations and reflection about academic honesty
- administering fair and consistent consequences for offences of the Academic Honesty Guidelines
- maintaining records of violations
- encouraging students to support and adhere to these guidelines
- insuring the process is aligned with ASD's mission and values

Each **PARENT/GUARDIAN** will maintain and support academic integrity at ASD by:

- becoming knowledgeable about the Academic Honesty Guidelines for individual teacher's classes
- helping the student understand that the parent values honesty and expects the student to comply with these guidelines
- supporting the imposition of consequences if the Academic Honesty Guidelines are violated
- providing help with assignments at home, only if confident that the teacher's guidelines for assignment completion have not indicated such help as jeopardizing the authenticity of the student work. (Advice for each course can be found on NESAS Virtual School).

ASD's Academic Honesty Guidelines expressly forbid the following:

Cheating

Cheating involves giving, receiving and/or attempting to offer unauthorized aid or unfair advantage in any academic work.

Such acts include, but are not limited to:

- talking or the use of signs or gestures during a quiz, test, or examination;
- copying from another student or allowing the copying;
- taking a photograph of any test, quizzes, or other student's work;
- disclosing or sharing information on a test or quiz with others who have not yet taken the assessment;
- submission of pre-written assignment at times when such assignments are supposed to be written in class;
- exceeding time limits on timed tests, quizzes or assignments without authorization;
- unauthorized possession of or use of study aids, electronic devices, notes, books, data, or other information;
- computer fraud;
- sabotaging the projects or experiments of other students;
- fabrication of data or information;
- presentation as "new" work of work previously submitted for another course. Any desire to re-submit previously assessed work, in part or in whole, must be pre-approved by the teacher.

Plagiarism

Plagiarism includes breaches of authenticity such as the copying of the language, structure, programming, computer code, graphs, visuals, music, ideas and/or thoughts of another and presenting it as one's own work. It also includes any unauthorized use of intellectual property. Students must be particularly aware that taking information, graphs, visuals, etc. from the internet may involve "stealing" of intellectual property, and will result in a lack of authenticity if the source is not fully acknowledged.

Students at ASD are advised to use MLA standards for their careful citation of sources. The basics of this format will be taught in grades 9 and 10, through the social studies and English courses, and in conjunction with the librarian.

Plagiarism occurs frequently due to inadequate paraphrasing or a lack of understanding that even when the ideas of another have been paraphrased well, the source must still be credited. Students will be given opportunities in grades 9 and 10 to practice this skill in their social studies and English courses. Turnitin.com will be used as a tool for both teaching about plagiarism and detecting plagiarism.

Falsification/Lying

Falsification includes the statement of any untruth either verbally or in writing, with respect to any circumstances relevant to one's academic work. Such acts include, but are not limited to:

- the forgery of official signatures;
- tampering with official records;
- fraudulently adding, deleting, or manipulating information on academic work after the testing period or due date of the assignment;
- lying or failing to give complete information to a teacher;
- claiming illness to gain extra preparation time for tests, quizzes or assignments due.

Stealing

Stealing includes the taking or appropriating without the right or permission to do so and with the intent to keep or make use of wrongfully, the schoolwork or materials of another. Such acts include but are not limited to:

- stealing copies of tests and quizzes;
- taking a photograph of any test, quizzes, or other student's work;
- illegitimately accessing the teacher's answer key for tests or quizzes;
- stealing the teacher's edition of the textbook;
- stealing another student's homework, notes or handouts.

Forms of Academic Dishonesty:

An infraction of the above can come in two forms: academic misconduct and academic

malpractice.

Academic Misconduct: A student may violate the rules of sound academic practice of clearly acknowledging all ideas and words of other persons without a deliberate attempt to gain unfair advantage. For example, this may be particularly true in the younger grades before students have had time to learn and practice correct citations and adequate paraphrasing. A teacher may feel this is true of a student new to the school for similar reasons. An academic misconduct will be seen as a learning opportunity.

Academic Malpractice: A student who attempts to gain unfair advantage, either deliberately or after having adequate opportunities for understanding this document and what it means in practice, has committed academic malpractice.

Procedures

Whenever a teacher suspects a violation, the teacher will first determine if it is a case of “Academic Misconduct” or of “Malpractice.” (See explanations above)

If an academic misconduct occurs, the teacher will speak to the student regarding the matter, stressing the potential for serious consequences. The teacher will submit a HS Referral (email), so that repeated behavior can be monitored, and can be dealt with more seriously. The third academic misconduct will result in the student being advised that any further cases of misconduct will be dealt with as malpractice. The student will meet with a counselor to discuss the seriousness of repetitions and to determine if the student needs further learning support in order to avoid such mistakes.

If a case of malpractice is determined, the following consequences are recommended to the Administration contingent upon the student’s history and severity of offenses (offenses are not considered more or less severe based on the importance of the assessment, e.g. cheating on homework is not less severe than cheating on a test.) Severity is more a matter of the degree trust has been broken or the extent of the offense, and will be considered by an administrator.

First Offense:

- The assessment receives a zero
- The violation is placed in the discipline record.
- Student completes an acceptable version of the assignment
- Student completes a “values learning plan.”
- Parents are informed.

Depending upon the severity of the offense, the following consequences may also be invoked:

- Student may be excused from any honor societies that he/she is a current member of and may be excused from SGA/class office.
- Student may not apply to any honor societies or run for any SGA/class office for 12 months after the first offense.

- Parents are asked to meet with the counselor and/or principal.
- Suspension or recommendation to Director for expulsion.
- Colleges may be notified.

Second Offense:

- The assessment receives a zero.
- The violation is placed in the discipline record.
- Student completes an acceptable version of the assignment.
- Student completes a “values learning plan”.
- Student will be excused from any honor societies that he/she is a current member of and will be excused from class office.
- Student may not apply to any honor societies or run for any SGA/class office for the remainder of his/her high school career at the American School of Doha
- Parents are brought in for conference where a contract is signed, signaling all parties are aware of the importance of academic honesty and the severity of a third offense.

Depending upon the severity of the offense, the following consequences may also apply:

- Suspension or recommendation to Director for expulsion.
- Colleges may be notified.

Third Offense:

- Student will be recommended to the Director for expulsion.
- Colleges to which student has applied/been accepted will be notified.

Quick Definitions

- Plagiarism: the representation of the ideas or work of another person as the candidate’s own, including inadequate paraphrasing.
- Collusion: supporting malpractice by another candidate, as in allowing one’s work submitted for assessment by another, or inappropriately providing answers to another
- Intellectual property: a legal concept referring, for example, to copyright laws, patents, and any legal rights
- Authenticity: an authentic piece of work is based on the student’s individual and original ideas. Any work or ideas of others is clearly and appropriately acknowledged. All work is in the student’s own words, unless otherwise acknowledged.
- Academic misconduct: essentially a breach of academic honesty, but one where the teacher feels there was no intent to gain unfair advantage.
- Malpractice: the gaining of unfair advantage in assessments, either intentionally or after a reasonable expectation is that the student would know and understand the guidelines in this document.

** This policy statement has been created in accordance with Advance Placement and International Baccalaureate procedural guidelines, with assistance from the American School of Dubai. **

Acknowledgement: All material presented in this document, unless otherwise indicated, has been compiled from IBO documents including course syllabus guides and the IBO website (www.ibo.org)