



جيمس مودرن أكاديمي
GEMS Modern Academy



International Baccalaureate Curriculum Information Booklet 2023 - 2025



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Key Acronyms and Terms

The following acronyms are used throughout this booklet. Subject specific acronyms are explained in the relevant subject pages.

IBO	International Baccalaureate Organisation
IB	International Baccalaureate
IBDP	International Baccalaureate Diploma Programme
IBDPC	International Baccalaureate Diploma Programme Coordinator
SL	Standard Level
HL	Higher Level
Core	Comprised of TOK, EE and CAS
TOK	Theory of Knowledge
CAS	Creativity Activity Service
EE	Extended Essay
DP1	Grade 11
DP2	Grade 12
GMA	GEMS Modern Academy



Dear Parents,

It is my pleasure to formally introduce myself to you as the International Baccalaureate Diploma Programme (IBDP) Coordinator at GEMS Modern Academy.

The Diploma Programme (DP) is a fantastic, enriching journey for students and teachers alike. In the 21st century, knowledge and data are more readily available and accessible to the citizens of the world than ever before. The global workforce is beginning to face an increasing shortage of skilled workers who have the ability to learn how to learn, adapt to new circumstances, take risks, innovate, and develop increasingly effective interpersonal skills. Technology plays a key role in helping students of this age to manage their own learning and various ED tech tools integrated into the learning process will help them to research deeper and get connected with the right solution and right people. Globalization and cultural diversity are two central elements of learning through IB Diploma Programme, and technology complements this, as it encourages interconnectivity.

Through this two year experience, your child is going to lay the groundwork for a lifetime of learning. The DP is an unrivaled international secondary school qualification that is not only academically enriching, but also develops successful global citizens of the highest character. GEMS Modern Academy provides a unique environment for students to experience this curriculum. It is no coincidence that the Modern Learner Profile shares so much in common with the IB Learner Profile. We are truly privileged to offer the DP in such a wonderful atmosphere that encourages students to reach their full potential. The outstanding results from our very first batch have shown that Modern truly offers a Diploma Programme of the highest standard.

Naturally, as with any worthwhile venture, success will not come instantly or easily! Students who develop the capacity to persevere, are willing to make mistakes, learn from these mistakes, and improve continuously are the ones who find the most success in the DP and in life. Your encouragement in this process will be vital.

With your continued support, our main objective is to encourage and guide students as they each strive to achieve their own unique goals. I personally look forward to welcoming your applications for study at the IBDP level and to working with you and your child to help realise these goals!

Sincerely,

Sunipa Neogi
IBDP Coordinator

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Application Process Timeline 2022-24



October	Curriculum orientation by Career team
November	Application portal opens for IBDP internal and external students via OpenApply website Meet the IB teachers afternoon session for Grade 10 students/parents
November	IBDP InfoPack for prospective parents by DPC
December	Late applications accepted onto waiting list. External applications accepted at any time subject to student numbers
January	IB Taster lesson for Grade 10 student
Jan- Feb	IB roadshow for Non-IB GEMS schools
April	IBDP Bridge Programme begins
April (date will be conveyed)	IBDP Bridge Programme InfoPack
May	Meet the IBDP teachers
May/June	Evaluation/interview process begins for applicants
June/ July	IBDP offer letters distribution commences
July / August	Parents/students to confirm acceptance of offers.
August	Offers made to students on waiting list



The IBDP Curriculum at GEMS Modern Academy



At GEMS Modern Academy we offer two IBDP categories of study for students from the International Baccalaureate Organisation (IBO).

- **The IB Diploma Programme (IBDP)**

An academically stimulating and balanced programme of education with final examinations in six subjects and an additional 'Core' programme of study (TOK, CAS, EE), that prepares students for success at university and life beyond.

- **The IB Diploma Course**

A flexible and equally stimulating version of the Diploma Programme in which students take 6 DP subjects at any level and have the option of taking parts of the 'Core' of the Diploma Course (TOK, CAS and EE). This category also provides students with the qualifications to access a wide range of universities.

International Baccalaureate Organisation

The International Baccalaureate Organisation was established in the late 1960s to meet the educational needs of students in International Schools. From these early days it has grown to an organisation that teaches over 1.95 million students in 5600 schools in nearly 159 countries. The IB is now taught in both International Schools and State sector schools across the globe, with the highest number of schools being in the United States.

The International Baccalaureate Organisation (IBO) is based in Geneva with its head curriculum office in Cardiff in the UK. There are regional offices that deal with Professional Development and administration of the program in different parts of the world in the Asia Pacific, South America, North America and Europe, Middle East and Africa.

The IBO 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 organisation works with schools, governments and international organizations to develop challenging programmes of international education and rigorous assessment.

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

The International Baccalaureate at GMA

Why has Modern chosen the IBDP?

The IB is recognised as one of the pre-eminent curriculum programmes worldwide. It is a holistic, and student-centred curriculum that helps prepare students become successful 21st-century learners. Heavily focused on inquiry, critical thinking and problem solving, it encourages international mindedness, compassion, tolerance and a love for learning. These values are shared by all Modernites which makes the decision to offer the IB a very obvious one. The robust IB curriculum is recognised globally as an excellent preparation for university and beyond. One of the driving motivations for implementing the IBDP is the fact that it is acknowledged by Universities worldwide as an excellent qualification and it is particularly sought after by the world's top universities.

We strongly believe that the IB Mission aligns closely with the Modern Mission and Vision statements:

The GMA Mission Statement

GEMS Modern Academy aims to develop vibrant and exemplary students who are nurtured to achieve their optimal potential and work respectfully towards creating a more peaceful world. Modern provides opportunities for a holistic and all-inclusive student-focused learning environment (Dubai Inclusive Education Policy, Law No. (2), Executive Council Resolution No. 2) with an overarching emphasis on building mature and sensitive young people, with the cultural intelligence to make a positive difference in local and global communities.

The GMA Vision Statement

Inspiring children to be positive change-makers.

The Learner Profile and the IB Curriculum



The IB Learner Profile is at the core of all IB curriculum models.

The breadth of the IB Programmes adds a value independent of any specific course. It is hard to quantify the value of scientists being required to study literature, or of artists being required to study mathematics, but we believe that it adds much to the educational experience of those in our IB programmes.

Beyond the explicitly academic aspect of the courses, the IB's mission statement is translated into a set of learning outcomes as identified in the Learner Profile. The IB Learner Profile describes a broad range of human capacities and responsibilities that go beyond academic success. They imply commitment to help all members of the school community learn to respect themselves, others and the world around them. Each of the IB's programmes is committed to the development of students according to the IB learner profile.

The profile aims to develop learners who are:

- Inquirers
- Knowledgeable
- Thinkers
- Communicators
- Principled
- Open-minded
- Caring
- Risk takers
- Balanced
- Reflective

A short video about the IB Learner Profile can be found here:

<http://www.ibo.org/benefits/learner-profile/>

The full IB Learner Profile is printed on the following page.



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.

IB Diploma Programme

The IB Diploma Programme (IBDP) is an academically enriching and balanced programme of education 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. Over the past 50 years, the DP has gained recognition and respect from the world's leading universities. It prepares students for effective participation in a rapidly evolving and increasingly global society as they:

- acquire breadth and depth of knowledge and understanding **by studying subjects across six subject groups**
- **study at least two languages** (English and a foreign language) while developing a sense of international-mindedness
- make connections across traditional academic disciplines and explore the nature of knowledge through the programme's unique **Theory of Knowledge (TOK)** course
- undertake in-depth research into an area of interest through the lens of one or more academic disciplines through the **Extended Essay (EE)**
- enhance personal and interpersonal development through **Creativity, Activity and Service (CAS)**.

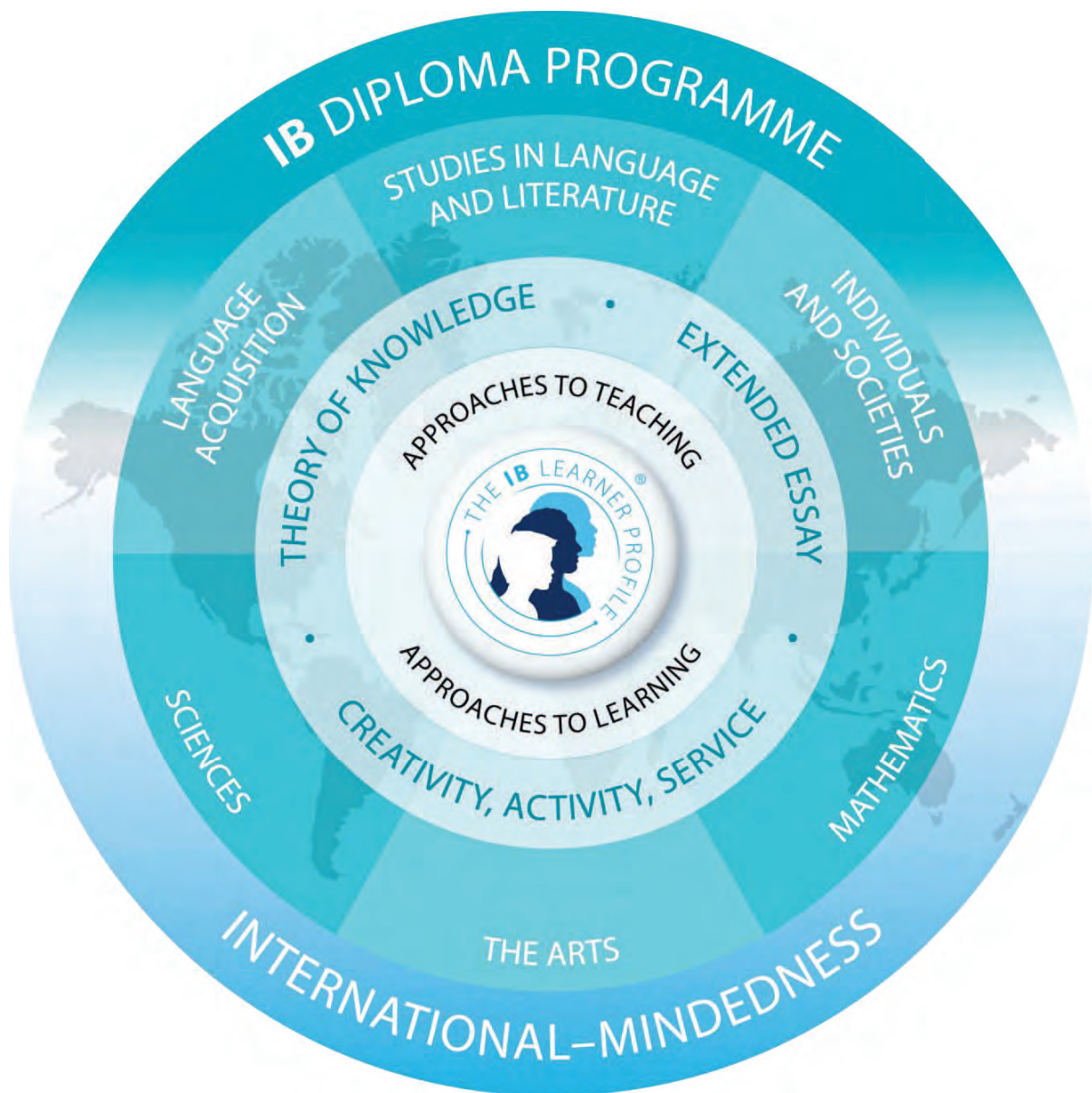
IB Diploma Programme candidates must choose at least one subject each from six groups:

- Studies in language and literature
- Language acquisition
- Individuals and societies
- Sciences
- Mathematics
- Arts*

*Instead of an Arts subject, students may choose a second subject from Individuals and Societies or the Sciences.

It is important to note that the IB Diploma Programme is a package, and the whole is bigger than the sum of its parts. In addition to subject-specific knowledge, the academic challenge of taking six subjects, the Extended Essay (EE) and Theory of Knowledge (TOK) allows students to develop excellent academic and personal skills in preparation for further study.

The Diploma Programme is nicely summarised in the IBDP logo below -- note that the curriculum puts the learner and IB learner profile at the centre of its philosophy and structure.



IB Diploma Programme – Categories of Study

1. IB Diploma

IB Diploma candidates must study three subjects are taken at higher level (HL, 240 recommended teaching hours), while the remaining are taken at standard level (SL, 150 recommended teaching hours). HL and SL courses differ in scope but are measured according to the same grade descriptors with students expected to demonstrate a greater body of knowledge, understanding and skills at higher level.

Each subject is scored on a points scale from 1 to 7 (the highest grade being 7).

In addition to the 6 subjects, there are three compulsory core elements that are central to the philosophy of the programme and worth a maximum of 3 bonus points in total:

- The Extended Essay (EE)
- Theory of Knowledge (TOK)
- Creativity, Activity and Service (CAS)

International Baccalaureate Diploma Award

The Diploma is awarded to students who achieve a minimum score of 24 (out of a possible total of 45), fulfil other minimum requirements (e.g. completing an Extended Essay) and have no failing conditions (see the list below).

At Modern, we have organised reporting, monitoring and counselling systems that highlight areas of concern for students at an early stage. The full requirements for students to pass the Diploma can be found in the IB General Regulations Booklet section 13 on the IBO website:

<https://www.ibo.org/globalassets/new-structure/become-an-ib-school/pdfs/general-regulations-diploma-programme-en.pdf>

The current updated IBDP failing conditions are listed below:

1. CAS requirements have not been met.
2. Candidate's total points are fewer than 24.
3. An N has been given for theory of knowledge, extended essay or for a contributing subject.
4. A grade E has been awarded for one or both of theory of knowledge and the extended essay.
5. There is a grade 1 awarded in a subject/level.
6. Grade 2 has been awarded three or more times (HL or SL).
7. Grade 3 or below has been awarded four or more times (HL or SL).
8. Candidate has gained fewer than 12 points on HL subjects (for candidates who register for four HL subjects, the three highest grades count).
9. Candidate has gained fewer than 9 points on SL subjects (candidates who register for two SL subjects must gain at least 5 points at SL).

2. The IB Diploma Course (aka ‘Certificate’)

In line with its inclusive philosophy, the IBO offers the **Diploma Course** category which provides a flexible pathway for students to experience the DP and gain entry to university. Approximately 40% of global IB candidates choose this route for a variety of reasons. Some can directly gain university entry without needing to meet all of the passing requirements for the Diploma category. Others individually tailor the programme to maximise their strengths and build on their weaknesses in a safe way, free from any possible failing conditions.

Students still undertake 6 subjects, but there is no requirement to study 3 at the Higher Level. While CAS is still mandatory and a very constructive experience, students have the option to undertake TOK and/or the Extended Essay.

At the end of the Programme, students are awarded a **Certificate of Diploma Course Results**, which serves as their credential for university

A multitude of universities across the world recognise the DP Courses as a valid prerequisite for study at Higher Education. All students, regardless of their DP pathway, are carefully guided to choose subjects that allow access to Higher Education at the end of Grade 12 (IB Year 2). We have a number of graduates since our first graduating batch who have gone on to successfully gain admission to universities in the UK, USA and India via the Diploma Course route.

Typical IB Diploma Course Outline

Subjects

- English SL
- Mathematics AA / AI SL
- Foreign language
- 3 further subjects choices (at SL unless DP subject entry requirements met for HL)

Core

- CAS
- Theory of Knowledge (optional course)
- Extended Essay (optional and with consultation)

The Diploma Programme Subject Options

Students choose one subject from each group (three at HL and three at SL for 'Diploma' candidates). The only exceptions being those who choose Environmental Systems and Societies and/or the free elective in Group 6 (see below).

Group 1: Studies in Language and Literature (English)

- Language A: Literature HL/SL
- Language A: English Language & Literature HL/SL

Group 2: Language Acquisition

- Arabic B SL
- French ab initio SL
- French B SL
- Hindi B SL
- Spanish B SL
- Spanish ab initio SL
- German ab initio SL

Ab Initio language is an entry level language focusing more on conversational language – students choosing Ab Initio courses should not have any prior language study at Grades 7 to 10 (ages 11-16) in the chosen language.

Group 3: Individuals and Societies

- Business Management HL/SL
- Economics HL/SL
- Geography HL/SL
- Global Politics HL/SL
- History HL/SL
- Digital Society HL/SL
- Psychology HL/SL
- Environmental Systems and Societies (SL only)*

*Note: Environmental Systems and Societies constitutes an interdisciplinary subject and can meet the requirement for Group 3 AND Group 4.

Therefore, if a student does not wish to take any of the subjects offered in Group 4 they can opt for this and vice-versa.

Group 4: Sciences

- Biology HL/SL
- Chemistry HL/SL
- Computer Science HL/SL
- Environmental Systems and Societies (SL only)
- Physics HL/SL
- Sport, Exercise and Health Science HL/SL

Group 5: Mathematics

- Math - Applications and interpretation HL/SL
- Math - Analysis and approaches HL/SL

Group 6: Arts and Electives

- Music HL/SL
- Visual Arts HL/SL
- Free elective (another subject from Group 3 or 4) HL/SL

The full range of subjects offered will be dependent on student interest. The school however is committed to offering as many subjects as possible to maximize opportunities for our students.

The IB Diploma Programme Core

In addition to disciplinary and interdisciplinary study, the Diploma Programme features three core elements that broaden students' educational experience. This gives students a unique and definitive edge in terms of university preparation.

Theory of knowledge (TOK)

TOK plays a special role in the Diploma Programme by providing an opportunity for students to reflect on the nature of knowledge. Students develop an understanding of how knowledge is constructed, communicated and developed over time in different areas of knowledge. By exploring different perspectives and considering the different ways in which we acquire knowledge, students carefully reflect upon "knowledge questions" which lie at the heart of the TOK course. This unique subject takes students on a 100 hour journey that culminates in two final assessments - an exhibition and a 1400-1600 word essay.

The extended essay (EE)

The EE allows students to engage in independent research through an in-depth study of a question relating to one of the DP subjects they are studying. The World Studies extended essay option allows students to focus on a topic of global significance which they examine through the lens of at least two DP subjects. With guidance from an assigned supervisor, students navigate the research process and build invaluable skills that prepare them the demands of university life. The final outcome is a 4000 word essay which is developed over approximately 40 hours of research time.

Creativity, activity, service (CAS)

CAS involves students in a range of activities alongside their academic studies throughout the Diploma Programme. Creativity encourages students to engage in the arts and creative thinking. Activity seeks to develop a healthy lifestyle through physical activity. Service with the community offers a vehicle for new learning with academic value. The three strands of CAS enhance students' personal and interpersonal development through experiential learning and reflection.

Activities planned by students in the past have included the Future Hope trip to Kolkata to support orphans, Project Scarletta, Blood Donation camp, The Green Cycle Drive, Bake sales for raising money for Dubai cares, and the organization of the first intra-school Model United Nations program here at Modern. The CAS legacy wall is a testament to all the student projects that have been handed over from one batch to another.

Here at Modern we offer a comprehensive array of creative activities, events such as Model United Nations, World Scholar's Cup, debating, sports, expeditions and service related opportunities allow students to take part in the activities needed while also providing them with structured support at all stages through the utilisation of the online ManageBac system. Activities planned and completed as part of the CAS programme significantly augment a student's curriculum vitae and helps differentiate them at both university and employment related interviews.

An in depth description of all three core areas can be found later in this booklet.

Admissions Process

Subject Option Prerequisites & Recommendations

In conjunction with our general school admissions policy, we are proud to be a fully-inclusive programme. It is our first priority to help students access the IB Diploma Programme in the way that suits each child best.

Selection of Diploma subject options should be undertaken with careful consideration of student interest, possible university pathways, Grade 10 outcomes, work ethic, and any additional context that can be gained from standardised CAT4 testing conducted within the school.

Consultation with in-house career counsellor is offered (on request) for selection of most suitable subjects. We are able to use this information to counsel students on the Diploma stream and subject options in which they are most likely to have positive learning experiences and outcomes. *There are several IB-specific admission requirements that should be noted:*

- If a student wishes to select a Diploma subject that they have not previously studied, then the consistency of their overall attainment will be considered. Subjects such as Visual Arts and Music require a consultation with the subject teacher to ensure that the prerequisite technical skills required are present.
- The recommended prerequisite Grade 10 scores for English, Mathematics and Science Higher Level selections are as follows. Consistency in attainment across both the Grade 10 preliminary examinations and final examinations is essential.

DP Subject choice	ICSE Grade 10 prerequisite (Preliminary and final)
English HL	80%
Mathematics AA/AI HL	92%
Biology HL Chemistry HL Physics HL Computer Science HL	85%

The GMA IBDP Bridge Programme

We have found that our students are highly-adaptable individuals who transition from the ICSE/CBSE/IGCSE/other curriculum to the IB Diploma very successfully. To help them transition smoothly, the purpose-built and bespoke modules of our Bridge Programme were designed here at Modern to help students develop the skills necessary to be successful in the DP. It is unique and unparalleled in the UAE, focusing on the IB approaches to teaching and learning, developing learner profile attributes through soft skill training like critical thinking, inquiry, academic writing, life skills, collaboration, analysis of texts, etc.

Teaching is:

- Differentiated to meet the needs of all learners- a personalized approach.
- Based on inquiry
- Focused on conceptual understanding
- Informed by formative and summative assessment
- Developed in collaboration with local and global contexts (i.e. international-mindedness)

The following learning skills are developed:

- Communication skills
- Social skills
- Thinking skills
- Self-management skills
- Research skills

The Bridge provides an engaging framework of learning that encourages students to become creative, critical and inquiring thinkers. Students attend the Bridge Programme in the April term after their Grade 10 ICSE examinations are completed in March.

The following modules have been designed at Modern to address the gaps identified in the section above. The 6 modules on the left hand side mirror their respective IB subject group, i.e. Deconstruct helps student develop skills relevant to Group 1: Studies in Language and Literature. The other 6 modules focus on the Core components of the IB Diploma Programme and the “approaches to learning” that are critical to success.

Modules	
Deconstruct	CAS
Cultural diversity	Philosophy of Learning
Social Entrepreneurship	Life skill
Investigative Science	Assessment in DP
Data Analysis	Academic Honesty
Flexi Module	Big Write
Meet the Expert	Global Citizenship

IB Diploma Programme – Application Process

Application Process:

The required application details can be submitted via the school IB application portal:

<https://gemsmoderndxb.openapply.com/>

As part of the application, students will need to write no more than one side of A4 to explain why they would like to study in the Diploma Programme, where their main passions and areas of enthusiasm lie, and what long-term goals they might be working toward.

Evidence of achievements, leadership roles and responsibilities need to be mentioned in the application and they will be discussed at the IB interviews. Students should discuss activities undertaken both inside and outside of school and they can be of an academic or non-academic nature.

Subject teacher recommendations:

Subject recommendations will be solicited from ICSE subject teachers in many cases. With these recommendations and the Grade 10 year's average (percentage), we will advise each student on safe and informed decisions regarding selection of Higher Level and Standard Level subjects.

University Recognition:

IB Diploma and DP Courses

The IB Diploma Programme is widely recognised and often pursued by universities around the world as a qualification of excellence. In many cases IB graduates are often preferred over other qualifications because of the breadth of their prior studies. Even a modest Diploma pass fares favourably with other qualifications like the ISC, British A-level or American curriculum.

Below is the link for country wise acceptances -

[Find countries and universities that admit IB students - International Baccalaureate® \(ibo.org\)](https://www.ibo.org/Find-countries-and-universities-that-admit-IB-students)

Students wishing to study in the UK are given a very generous UCAS points with an IBDP pass. Many Universities in the United States even give unconditional offers and/or advanced credit for IBDP graduates. The IB helps universities develop effective admissions and recognition policies so IB students can gain equitable and competitive offers.

Information about individual entry requirements and the UCAS tariff tables for UK University admissions can be found on the UCAS websites.

Nevertheless, like all High School qualifications, it is important to check your target university to see specific university and course requirements. Modern will offer clear, informed guidance on university selection and tertiary options over the course of the DP. For the Courses Programme students UCAS points are awarded for each IB course finished and also for the TOK course (if taken).

IB Examination Registration Fees

Parents/Guardians are required to pay an IB Diploma registration fee for the final board examinations in addition to the school's regular tuition fees.

There are also fees for any changes or amendments to IB subject options that are requested in the second year of the IB Diploma. These will be communicated by the IB Coordinator at the time of the request.

The IB Team at Modern

IB Diploma Coordinator	Dr Sunipa Neogi	sunipa.n_mhs@gemsedu.com
IB Diploma Asst Coordinator	Mrs Vinaya Jaydev	paliyath.v_mhs@gemsedu.com
Careers/University Counsellors	Mrs Shilpa Kapoor	shilpa.k_mhs@gemsedu.com
EE Coordinator	Mr Sheldon Dias	sheldon.d_mhs@gemsedu.com
CAS Coordinator	Ms Bipasha De	bipasha.d_mhs@gemsedu.com
TOK Coordinator	Mrs Sreekala Sureshkumar	sreekala.k_mhs@gemsedu.com

DP Subject Information

Source: [Course selection guidance - International Baccalaureate® \(ibo.org\)](#)

Group 1: Studies in Language and Literature

- English Literature HL/SL
- English Language and Literature HL/SL

International Baccalaureate Diploma Programme Subject Brief

Language A: literature

First assessments for SL and HL—2021

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

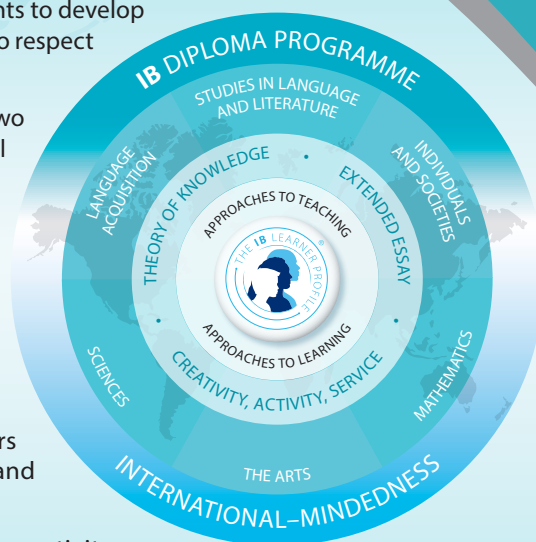
The course is presented as six academic areas enclosing a central core. Students study two modern languages (or a modern language and a classical language), a humanities or social science subject, an experimental science, mathematics and one of the creative arts. Instead of an arts subject, students can choose two subjects from another area. It is this comprehensive range of subjects that makes the Diploma Programme a demanding course of study designed to prepare students effectively for university entrance. In each of the academic areas students have flexibility in making their choices, which means they can choose subjects that particularly interest them and that they may wish to study further at university.

Normally, three subjects (and not more than four) are taken at higher level (HL), and the others are taken at standard level (SL). The IB recommends 240 teaching hours for HL subjects and 150 hours for SL. Subjects at HL are studied in greater depth and breadth than at SL.

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

This IB DP subject brief has three key components:

- I. Course description and aims
- II. Curriculum model overview
- III. Assessment model



I. Course description and aims

The language A: literature aims at exploring the various manifestations of literature as a particularly powerful mode of writing across cultures and throughout history. The course aims at developing an understanding of factors that contribute to the production and reception of literature—the creativity of writers and readers, the nature of their interaction with their respective contexts and with literary tradition, the ways in which language can give rise to meaning and/or effect, and the performative and transformative potential of literary creation and response. Through close analysis of a range of literary texts in a number of literary forms and from different times and places, students will consider their own interpretations as well as the critical perspectives of others, to explore how such positions are shaped by cultural belief systems and to negotiate meanings for texts.

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

- engage with a range of texts, in a variety of media and forms, from different periods, styles and cultures
- develop skills in listening, speaking, reading, writing, viewing, presenting and performing
- develop skills in interpretation, analysis and evaluation
- develop sensitivity to the formal and aesthetic qualities of texts and an appreciation of how they contribute to diverse responses and open up multiple meanings

- develop an understanding of relationships between texts and a variety of perspectives, cultural contexts, and local and global issues, and an appreciation of how they contribute to diverse responses and open up multiple meanings
- develop an understanding of the relationships between studies in language and literature and other disciplines
- communicate and collaborate in a confident and creative way
- foster a lifelong interest in and enjoyment of language and literature.

II. Curriculum model overview

Syllabus component	Recommended teaching hours	
	SL	HL
Readers, writers and texts	50	80
Time and space	50	80
Intertextuality: connecting texts	50	80
Total teaching hours	150	240

III. Assessment model

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

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

Assessment at a glance

Type of assessment	Format of assessment	Time (hours)		Weighting of final grade (%)	
		SL	HL	SL	HL
External					
Paper 1: Guided literary analysis	Guided analysis of unseen literary passage/ passages from different text types.	1.25	2.25	35	35
Paper 2: Comparative essay	Comparative essay based on two literary works written in response to a choice of one out of four questions.	1.75	1.75	35	25
HL essay	Written coursework component: 1,200–1,500 word essay on one work studied.				20
Internal					
Individual oral	Prepared oral response on the way that one work originally written in the language studied and one work studied in translation have approached a common global issue.			30	20

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International Baccalaureate Diploma Programme Subject Brief

Language A: language and literature

First assessments for SL and HL—2021

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

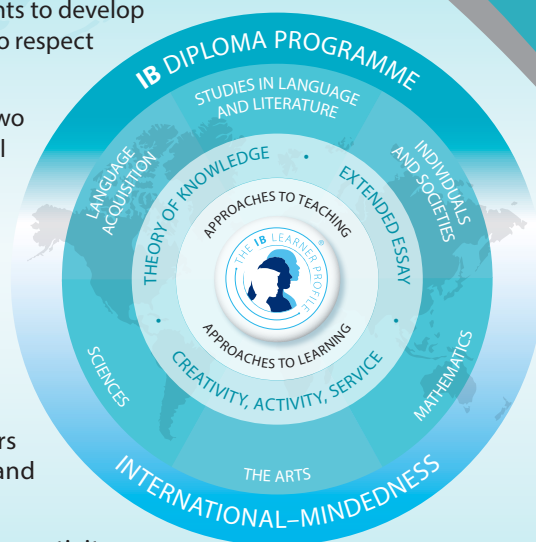
The course is presented as six academic areas enclosing a central core. Students study two modern languages (or a modern language and a classical language), a humanities or social science subject, an experimental science, mathematics and one of the creative arts. Instead of an arts subject, students can choose two subjects from another area. It is this comprehensive range of subjects that makes the Diploma Programme a demanding course of study designed to prepare students effectively for university entrance. In each of the academic areas students have flexibility in making their choices, which means they can choose subjects that particularly interest them and that they may wish to study further at university.

Normally, three subjects (and not more than four) are taken at higher level (HL), and the others are taken at standard level (SL). The IB recommends 240 teaching hours for HL subjects and 150 hours for SL. Subjects at HL are studied in greater depth and breadth than at SL.

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

This IB DP subject brief has three key components:

- I. Course description and aims
- II. Curriculum model overview
- III. Assessment model



I. Course description and aims

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

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

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

- engage with a range of texts, in a variety of media and forms, from different periods, styles and cultures
- develop skills in listening, speaking, reading, writing, viewing, presenting and performing
- develop skills in interpretation, analysis and evaluation
- develop sensitivity to the formal and aesthetic qualities of texts and an appreciation of how they contribute to diverse responses and open up multiple meanings

- develop an understanding of relationships between texts and a variety of perspectives, cultural contexts, and local and global issues, and an appreciation of how they contribute to diverse responses and open up multiple meanings
- develop an understanding of the relationships between studies in language and literature and other disciplines
- communicate and collaborate in a confident and creative way
- foster a lifelong interest in and enjoyment of language and literature.

II. Curriculum model overview

Syllabus component	Recommended teaching hours	
	SL	HL
Readers, writers and texts	50	80
Time and space	50	80
Intertextuality: connecting texts	50	80
Total teaching hours	150	240

III. Assessment model

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

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

Assessment at a glance

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

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DP Subject Information

Group 2: Language Acquisition

- Arabic B SL
- French B SL
- French ab initio SL
- Hindi B SL
- Spanish ab initio SL
- Spanish B SL
- German ab initio SL

The structures of these courses at HL, SL and Ab Initio Level are generic so there is only one information sheet for each of these types of course.

International Baccalaureate Diploma Programme Subject Brief

Language ab initio

First assessment 2020

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

The course is presented as six academic areas enclosing a central core. Students study two modern languages (or a modern language and a classical language), a humanities or social science subject, an experimental science, mathematics and one of the creative arts. Instead of an arts subject, students can choose two subjects from another area. It is this comprehensive range of subjects that makes the Diploma Programme a demanding course of study designed to prepare students effectively for university entrance. In each of the academic areas students have flexibility in making their choices, which means they can choose subjects that particularly interest them and that they may wish to study further at university.

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

This IB DP subject brief has four key components:

I. Course description and aims

II. Curriculum model overview

III. Assessment model

IV. Content outline



I. Course description and aims

Language acquisition consists of two modern language courses—language ab initio and language B—designed to provide students with the necessary skills and intercultural understanding to enable them to communicate successfully in an environment where the language studied is spoken.

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

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

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

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

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

II. Curriculum model overview

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

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

Communication is evidenced through receptive, productive and interactive skills.

III. Assessment model

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

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

Assessment at a glance

Language ab initio SL assessment outline		Weighting
External 75%	Paper 1 (productive skills) Two written tasks—each from a choice of three Writing—30 marks	25%
	Paper 2 (receptive skills) Separate sections for listening and reading Listening—25 marks Reading—40 marks	25% 25%
Internal 25%	Individual oral assessment 30 marks	25%

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

IV. Content outline

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

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International Baccalaureate Diploma Programme Subject Brief

Language B

First assessment 2020

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The course is presented as six academic areas enclosing a central core. Students study two modern languages (or a modern language and a classical language), a humanities or social science subject, an experimental science, mathematics and one of the creative arts. Instead of an arts subject, students can choose two subjects from another area. It is this comprehensive range of subjects that makes the Diploma Programme a demanding course of study designed to prepare students effectively for university entrance. In each of the academic areas students have flexibility in making their choices, which means they can choose subjects that particularly interest them and that they may wish to study further at university.

Normally, three subjects (and not more than four) are taken at higher level (HL), and the others are taken at standard level (SL). The IB recommends 240 teaching hours for HL subjects and 150 hours for SL. Subjects at HL are studied in greater depth and breadth than at SL.

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

This IB DP subject brief has four key components:

I. Course description and aims

II. Curriculum model overview

III. Assessment model

IV. Content outline



I. Course description and aims

Language acquisition consists of two modern language courses—language ab initio and language B—designed to provide students with the necessary skills and intercultural understanding to enable them to communicate successfully in an environment where the language studied is spoken.

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

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

At HL the study of two literary works originally written in the target language is required and students are expected to extend the range and complexity of the language they use and understand in order to communicate. Students continue to develop their knowledge of

vocabulary and grammar, as well as their conceptual understanding of how language works, in order to construct, analyse and evaluate arguments on a variety of topics relating to course content and the target language culture(s).

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

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

- Provide students with a basis for further study, work and leisure through the use of an additional language.
- Foster curiosity, creativity and a lifelong enjoyment of language learning.

II. Curriculum model overview

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

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

Communication is evidenced through receptive, productive and interactive skills.

III. Assessment model

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

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

Assessment at a glance

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

The assessment outlines for language B SL and HL are identical; it is the nature of the assessment that differs and this is what distinguishes SL assessments from those of HL.

For language B HL paper 1, the tasks set will require more complex language and structures and demand higher-order thinking skills. Additionally for HL, a higher word range has been provided in order to accommodate the more complex responses required.

For the individual oral internal assessment, the stimulus at language B SL is a visual image that is clearly relevant to one (or more) of the themes of the course. The stimulus at language B HL is an excerpt from one of the two literary works studied.

IV. Content outline

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

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DP Subject Information

Group 3: Individuals and Societies

- Business and Management HL/SL
- Economics HL/SL
- Geography HL/SL
- History HL/SL
- Digital Society HL/SL
- Psychology HL/SL
- Environmental Systems and Societies (SL only)*

***Note:** Environmental Systems and Societies constitutes an interdisciplinary subject counts toward Group 3: Individuals and Societies and Group 4: Sciences.

Therefore, if a student does not wish to take any of the subjects offered in Group 4 they can opt for this and vice-versa. See the Group 4 subject pages for more information.

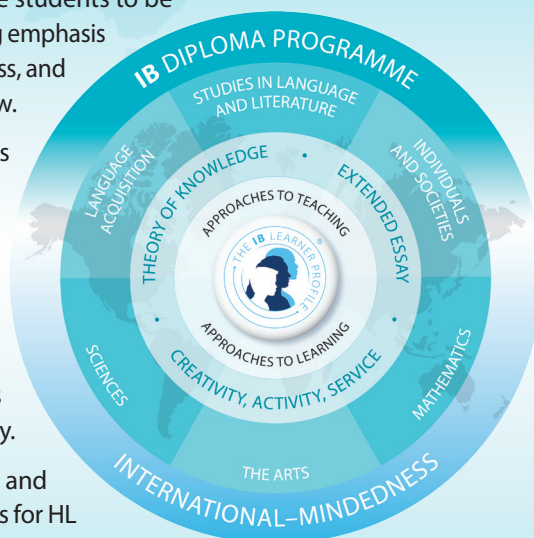
Individuals and societies: Business management—higher level

First assessments 2024

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The course is presented as six academic areas enclosing a central core. Students study two modern languages (or a modern language and a classical language), a humanities or social science subject, an experimental science, mathematics and one of the creative arts. Instead of an arts subject, students can choose two subjects from another area. It is this comprehensive range of subjects that makes the Diploma Programme a demanding course of study designed to prepare students effectively for university entrance. In each of the academic areas students have flexibility in making their choices, which means they can choose subjects that particularly interest them and that they may wish to study further at university.

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I. Course description and aims

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

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

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

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

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

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

II. Curriculum model overview

Component	Recommended teaching hours
<p>Unit 1: Introduction to business management</p> <p>1.1 What is a business? 1.2 Types of business entities 1.3 Business objectives 1.4 Stakeholders 1.5 Growth and evolution 1.6 Multinational companies (MNCs)</p>	20
<p>Unit 2: Human resource management</p> <p>2.1 Introduction to human resource management 2.2 Organizational structure 2.3 Leadership and management 2.4 Motivation and demotivation 2.5 Organizational (corporate) culture (HL only) 2.6 Communication 2.7 Industrial/employee relations (HL only)</p>	35
<p>Unit 3: Finance and accounts</p> <p>3.1 Introduction to finance 3.2 Sources of finance 3.3 Costs and revenues 3.4 Final accounts 3.5 Profitability and liquidity ratio analysis 3.6 Debt/equity ratio analysis (HL only) 3.7 Cash flow 3.8. Investment appraisal 3.9 Budgets (HL only)</p>	45
<p>Unit 4: Marketing</p> <p>4.1 Introduction to marketing 4.2 Marketing planning 4.3 Sales forecasting (HL only) 4.4 Market research 4.5 The seven Ps of the marketing mix 4.6 International marketing (HL only)</p>	35

Unit 5: Operations management	45
5.1 Introduction to operations management	
5.2 Operations methods	
5.3 Lean production and quality management (HL only)	
5.4 Location	
5.5 Break-even analysis	
5.6 Production planning (HL only)	
5.7 Crisis management and contingency planning (HL only)	
5.8 Research and development (HL only)	
5.9 Management information systems (HL only)	
Business management toolkit	35
Research time allocated for the pre-released statement in paper 1	5
Internal assessment	20

III. Assessment model

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

AO1: Knowledge and understanding

Demonstrate knowledge and understanding of:

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

AO2: Application and analysis

Apply and analyse:

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

AO3: Synthesis and evaluation

Synthesize and evaluate:

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

AO4: Use and application of appropriate skills

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

- Communicate analysis, evaluation and conclusions of research effectively.

Assessment at a glance

Type of assessment	Format of assessment	Time	Weighting of final grade (%)
External		4 hours 30 minutes	80
Paper 1	Based on a pre-released statement that specifies the <i>context</i> and <i>background</i> for the unseen case study	1 hour 30 minutes	25
Paper 2	Based on unseen stimulus material with a quantitative focus	1 hour 45 minutes	30
Paper 3	Based on unseen stimulus material about a social enterprise	1 hour 15 minutes	25
Internal			
Business research project	Students produce a research project about a real business issue or problem facing a particular organization using a conceptual lens	20 hours	20

IV. Sample questions

Paper 1

- Explain **one** advantage and **one** disadvantage for *MT* of being a small business. [4]
- Discuss whether Jackie should accept or reject *KC*'s offer to buy *MT*. [10]

Paper 2

- Using the data provided in **Table 7**, other information in the stimulus, and a Boston Consulting Group (BCG) matrix, recommend to *QS* which e-scooter model should be removed from *QS*'s portfolio in order for the company to remain profitable. [10]

Paper 3

- Using all the resources provided and your knowledge of business management, recommend a possible plan of action to ensure the sustainability of *SML* for the next five years. [17]

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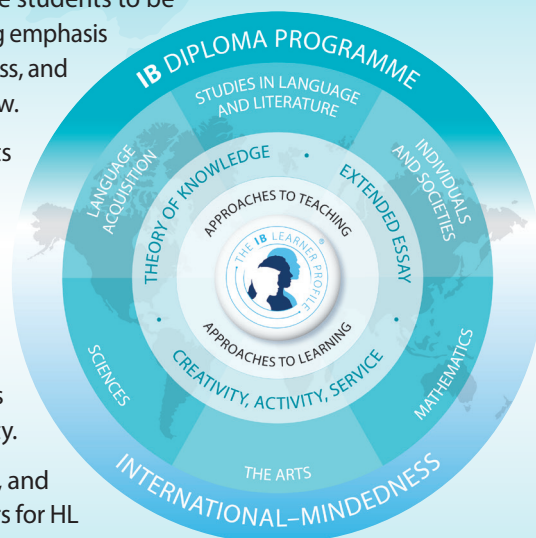
Individuals and societies: Business management—standard level

First assessments 2024—last assessments 2031

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Normally, three subjects (and not more than four) are taken at higher level (HL), and the others are taken at standard level (SL). The IB recommends 240 teaching hours for HL subjects and 150 hours for SL. Subjects at HL are studied in greater depth and breadth than at SL. In addition, three core elements—the extended essay, theory of knowledge and creativity, activity, service—are compulsory and central to the philosophy of the programme.



I. Course description and aims

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

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

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

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

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

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

II. Curriculum model overview

Component	Recommended teaching hours
<p>Unit 1: Introduction to business management</p> <p>1.1 What is a business? 1.2 Types of business entities 1.3 Business objectives 1.4 Stakeholders 1.5 Growth and evolution 1.6 Multinational companies (MNCs)</p>	20
<p>Unit 2: Human resource management</p> <p>2.1 Introduction to human resource management 2.2 Organizational structure 2.3 Leadership and management 2.4 Motivation and demotivation 2.5 Organizational (corporate) culture (HL only) 2.6 Communication 2.7 Industrial/employee relations (HL only)</p>	20
<p>Unit 3: Finance and accounts</p> <p>3.1 Introduction to finance 3.2 Sources of finance 3.3 Costs and revenues 3.4 Final accounts 3.5 Profitability and liquidity ratio analysis 3.6 Debt/equity ratio analysis (HL only) 3.7 Cash flow 3.8. Investment appraisal 3.9 Budgets (HL only)</p>	30
<p>Unit 4: Marketing</p> <p>4.1 Introduction to marketing 4.2 Marketing planning 4.3 Sales forecasting (HL only) 4.4 Market research 4.5 The seven Ps of the marketing mix 4.6 International marketing (HL only)</p>	30

Unit 5: Operations management	15
5.1 Introduction to operations management	
5.2 Operations methods	
5.3 Lean production and quality management (HL only)	
5.4 Location	
5.5 Break-even analysis	
5.6 Production planning (HL only)	
5.7 Crisis management and contingency planning (HL only)	
5.8 Research and development (HL only)	
5.9 Management information systems (HL only)	
Business management toolkit	10
Research time allocated for the pre-released statement in paper 1	5
Internal assessment	20

III. Assessment model

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

A01: Knowledge and understanding

Demonstrate knowledge and understanding of:

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

A02: Application and analysis

Apply and analyse:

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

A03: Synthesis and evaluation

Synthesize and evaluate:

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

A04: Use and application of appropriate skills

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

- Communicate analysis, evaluation and conclusions of research effectively.

Assessment at a glance

Type of assessment	Format of assessment	Time	Weighting of final grade (%)
External		3 hours	70
Paper 1	Based on a pre-released statement that specifies the <i>context</i> and <i>background</i> for the unseen case study	1 hour 30 minutes	35
Paper 2	Based on unseen stimulus material with a quantitative focus	1 hour 30 minutes	35
Internal			
Business research project	Students produce a research project about a real business issue or problem facing a particular organization using a conceptual lens	20 hours	30

IV. Sample questions

Paper 1

- Explain **one** advantage and **one** disadvantage for *MT* of being a small business. [4]
- Discuss whether Jackie should accept or reject *KC*'s offer to buy *MT*. [10]

Paper 2

- Using the information in the stimulus, evaluate *WM*'s decision to shift from mass production to mass customization. [10]

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International Baccalaureate Diploma Programme Subject Brief

Individuals and societies: Economics—higher level

First assessments 2022—last assessments 2029

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

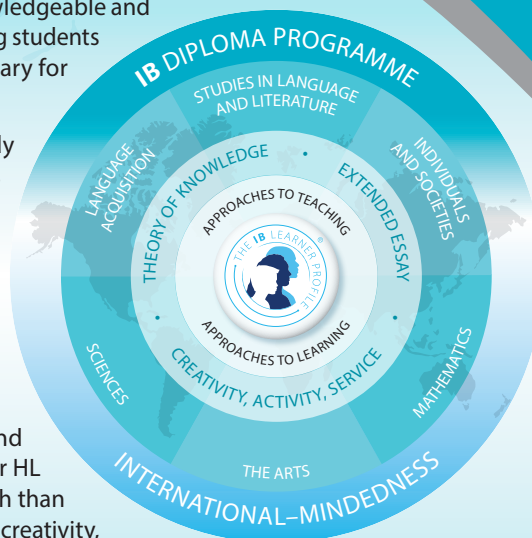
The course is presented as six academic areas enclosing a central core. Students study two modern languages (or a modern language and a classical language), a humanities or social science subject, an experimental science, mathematics and one of the creative arts. Instead of an arts subject, students can choose two subjects from another area. It is this comprehensive range of subjects that makes the Diploma Programme a demanding course of study designed to prepare students effectively for university entrance. In each of the academic areas students have flexibility in making their choices, which means they can choose subjects that particularly interest them and that they may wish to study further at university.

Normally, three subjects (and not more than four) are taken at higher level (HL), and the others are taken at standard level (SL). The IB recommends 240 teaching hours for HL subjects and 150 hours for SL. Subjects at HL are studied in greater depth and breadth than at SL. In addition, three core elements—the extended essay, theory of knowledge and creativity, activity, service—are compulsory and central to the philosophy of the programme.

These DP subject briefs illustrate four key course components.

- I. Course description and aims
- II. Curriculum model overview

- III. Assessment model
- IV. Sample questions



I. Course description and aims

Economics is an exciting, dynamic subject that allows students to develop an understanding of the complexities and interdependence of economic activities in a rapidly changing world. At the heart of economic theory is the problem of scarcity. Owing to scarcity, choices have to be made. The economics course, at both SL and HL, uses economic theories, models and key concepts to examine the ways in which these choices are made: at the level of producers and consumers in individual markets (microeconomics); at the level of the government and the national economy (macroeconomics); and at an international level, where countries are becoming increasingly interdependent (the global economy). The DP economics course allows students to explore these models, theories and key concepts, and apply them, using empirical data, through the examination of six real-world issues. Through their own inquiry, students will be able to appreciate both the values and limitations of economic models in explaining real-world economic behaviour and outcomes. By focusing on the six real-world issues through the nine key concepts (scarcity, choice, efficiency, equity, economic well-being, sustainability, change, interdependence and intervention), students of the economics course will develop the knowledge, skills, values and attitudes that will encourage them to act responsibly as global citizens.

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

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

II. Curriculum model overview

Component	Recommended teaching hours
Unit 1: Introduction to economics 1.1 What is economics? 1.2 How do economists approach the world?	10
Unit 2: Microeconomics 2.1 Demand 2.2 Supply 2.3 Competitive market equilibrium 2.4 Critique of the maximizing behaviour of consumers and producers 2.5 Elasticity of demand 2.6 Elasticity of supply 2.7 Role of government in microeconomics 2.8 Market failure—externalities and common pool or common access resources 2.9 Market failure—public goods 2.10 Market failure—asymmetric information 2.11 Market failure—market power 2.12 The market's inability to achieve equity	70
Unit 3: Macroeconomics 3.1 Measuring economic activity and illustrating its variations 3.2 Variations in economic activity—aggregate demand and aggregate supply 3.3 Macroeconomic objectives 3.4 Economics of inequality and poverty 3.5 Demand management (demand-side policies)—monetary policy 3.6 Demand management—fiscal policy 3.7 Supply-side policies	75

Unit 4: The global economy	65
4.1 Benefits of international trade	
4.2 Types of trade protection	
4.3 Arguments for and against trade control/ protection	
4.4 Economic integration	
4.5 Exchange rates	
4.6 Balance of payments	
4.7 Sustainable development	
4.8 Measuring development	
4.9 Barriers to economic growth and/or economic development	
4.10 Economic growth and/or economic development strategies	
Internal assessment	20
Portfolio of three commentaries	

III. Assessment model

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

Assessment objective 1: Knowledge and understanding

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

Assessment objective 2: Application and analysis

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

Assessment objective 3: Synthesis and evaluation

- Examine economic concepts and theories
- Use economic concepts and examples to construct and present an argument
- Discuss and evaluate economic information and theories
- Demonstrate economic synthesis and evaluation of the HL extension topics
- Select and use economic data using economic theory to make policy recommendations

Assessment objective 4: Use and application of appropriate skills

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

Type of assessment	Format of assessment	Time	Weighting of final grade (%)
External		4 hours 45 mins	80
Paper 1	Extended response paper based on all units of the syllabus	1 hour 15 mins	20
Paper 2	Data response paper based on all units of the syllabus	1 hour 45 mins	30
Paper 3	Policy paper based on all units of the syllabus	1 hour 45 mins	30
Internal			
Portfolio	Three commentaries based on different units of the syllabus (except the introductory unit) and from published extracts from the news media, analysed using different key concepts	20 hours	20

IV. Sample questions

Paper 1

- Explain two tools open to a central bank to conduct expansionary monetary policy.
- Using real-world examples, evaluate the effectiveness of monetary policy to achieve low unemployment.

Paper 2

- Using an exchange rate diagram, explain how the increase in the interest rate by the Nigerian central bank might prevent the continued fall in the value of the naira.

Paper 3

- Using the data provided, and your knowledge of economics, recommend a policy that could be introduced by the government of Country X in response to the expected fall in the world price of coffee.

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International Baccalaureate Diploma Programme Subject Brief

Individuals and societies: Economics—standard level

First assessments 2022—last assessments 2029

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

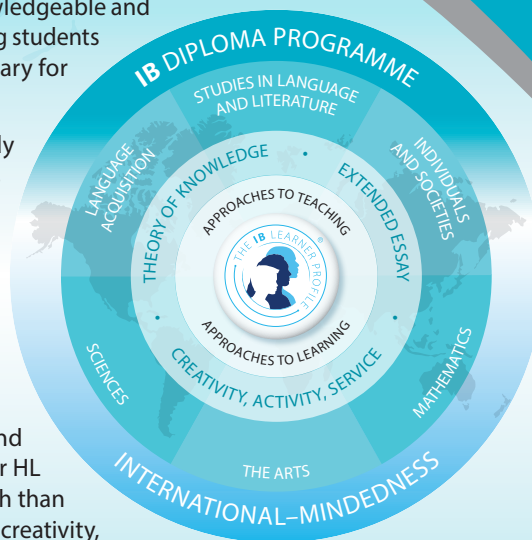
The course is presented as six academic areas enclosing a central core. Students study two modern languages (or a modern language and a classical language), a humanities or social science subject, an experimental science, mathematics and one of the creative arts. Instead of an arts subject, students can choose two subjects from another area. It is this comprehensive range of subjects that makes the Diploma Programme a demanding course of study designed to prepare students effectively for university entrance. In each of the academic areas students have flexibility in making their choices, which means they can choose subjects that particularly interest them and that they may wish to study further at university.

Normally, three subjects (and not more than four) are taken at higher level (HL), and the others are taken at standard level (SL). The IB recommends 240 teaching hours for HL subjects and 150 hours for SL. Subjects at HL are studied in greater depth and breadth than at SL. In addition, three core elements—the extended essay, theory of knowledge and creativity, activity, service—are compulsory and central to the philosophy of the programme.

These DP subject briefs illustrate four key course components.

- I. Course description and aims
- II. Curriculum model overview

- III. Assessment model
- IV. Sample questions



I. Course description and aims

Economics is an exciting, dynamic subject that allows students to develop an understanding of the complexities and interdependence of economic activities in a rapidly changing world. At the heart of economic theory is the problem of scarcity. Owing to scarcity, choices have to be made. The economics course, at both SL and HL, uses economic theories, models and key concepts to examine the ways in which these choices are made: at the level of producers and consumers in individual markets (microeconomics); at the level of the government and the national economy (macroeconomics); and at an international level, where countries are becoming increasingly interdependent (the global economy). The DP economics course allows students to explore these models, theories and key concepts, and apply them, using empirical data, through the examination of six real-world issues. Through their own inquiry, students will be able to appreciate both the values and limitations of economic models in explaining real-world economic behaviour and outcomes. By focusing on the six real-world issues through the nine key concepts (scarcity, choice, efficiency, equity, economic well-being, sustainability, change, interdependence and intervention), students of the economics course will develop the knowledge, skills, values and attitudes that will encourage them to act responsibly as global citizens.

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

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

II. Curriculum model overview

Component	Recommended teaching hours
Unit 1: Introduction to economics 1.1 What is economics? 1.2 How do economists approach the world?	10
Unit 2: Microeconomics 2.1 Demand 2.2 Supply 2.3 Competitive market equilibrium 2.4 Critique of the maximizing behaviour of consumers and producers 2.5 Elasticity of demand 2.6 Elasticity of supply 2.7 Role of government in microeconomics 2.8 Market failure—externalities and common pool or common access resources 2.9 Market failure—public goods	35
Unit 3: Macroeconomics 3.1 Measuring economic activity and illustrating its variations 3.2 Variations in economic activity—aggregate demand and aggregate supply 3.3 Macroeconomic objectives 3.4 Economics of inequality and poverty 3.5 Demand management (demand-side policies)—monetary policy 3.6 Demand management—fiscal policy 3.7 Supply-side policies	40

Unit 4: The global economy	45
4.1 Benefits of international trade	
4.2 Types of trade protection	
4.3 Arguments for and against trade control/ protection	
4.4 Economic integration	
4.5 Exchange rates	
4.6 Balance of payments	
4.7 Sustainable development	
4.8 Measuring development	
4.9 Barriers to economic growth and/or economic development	
4.10 Economic growth and/or economic development strategies	
Internal assessment	20
Portfolio of three commentaries	

Type of assessment	Format of assessment	Time	Weighting of final grade (%)
External		3 hours	70
Paper 1	Extended response paper based on all units of the syllabus	1 hour 15 mins	30
Paper 2	Data response paper based on all units of the syllabus	1 hour 45 mins	40
Internal			
Portfolio	Three commentaries based on different units of the syllabus (except the introductory unit) and from published extracts from the news media, analysed using different key concepts	20 hours	30

III. Assessment model

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

Assessment objective 1: Knowledge and understanding

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

Assessment objective 2: Application and analysis

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

Assessment objective 3: Synthesis and evaluation

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

Assessment objective 4: Use and application of appropriate skills

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

IV. Sample questions

Paper 1

- Explain two reasons why a government might set a price ceiling (maximum price) on a good.
- Using real-world examples, discuss the consequences of a price ceiling on stakeholders.

Paper 2

- Using a poverty cycle diagram, explain how the net increase in foreign direct investment (FDI) in Mexico between 2010 and 2015 might lead to an improvement in economic development.

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International Baccalaureate Diploma Programme Subject Brief

Individuals and societies: Geography

First assessments 2019



The IB Diploma Programme (DP) is a rigorous, academically challenging and balanced programme of education designed to prepare students aged 16 to 19 for success at university and life beyond. The DP aims to encourage students to be knowledgeable, inquiring, caring and compassionate, and to develop intercultural understanding, open-mindedness and the attitudes necessary to respect and evaluate a range of viewpoints. Approaches to teaching and learning (ATL) are deliberate strategies, skills and attitudes that permeate the teaching and learning environment. In the DP students develop skills from five ATL categories: thinking, research, social, self-management and communication.

To ensure both breadth and depth of knowledge and understanding, students must choose at least one subject from five groups: 1) their best language, 2) additional language(s), 3) social sciences, 4) sciences, and 5) mathematics. Students may choose either an arts subject from group 6, or a second subject from groups 1 to 5. At least three and not more than four subjects are taken at higher level (240 recommended teaching hours), while the remaining are taken at standard level (150 recommended teaching hours). In addition, three core elements—the extended essay, theory of knowledge and creativity, activity, service—are compulsory and central to the philosophy of the programme.

These IB DP subject briefs illustrate the following key course components.

- I. Course description and aims
- II. Curriculum model overview

- III. Assessment model
- IV. Sample questions



I. Course description and aims

Geography is a dynamic subject firmly grounded in the real world, and focuses on the interactions between individuals, societies and physical processes in both time and space. It seeks to identify trends and patterns in these interactions. It also investigates the way in which people adapt and respond to change, and evaluates actual and possible management strategies associated with such change. Geography describes and helps to explain the similarities and differences between different places, on a variety of scales and from different perspectives.

Geography as a subject is distinctive in its spatial dimension and occupies a middle ground between social or human sciences and natural sciences. The course integrates physical, environmental and human geography, and students acquire elements of both socio-economic and scientific methodologies. Geography takes advantage of its position to examine relevant concepts and ideas from a wide variety of disciplines, helping students develop life skills and have an appreciation of, and a respect for, alternative approaches, viewpoints and ideas.

Students at both SL and HL are presented with a common core and optional geographic themes. HL students also study the HL core extension. Although the skills and activity of studying geography are common to all students, HL students are required to acquire a further body of knowledge, to demonstrate critical evaluation and to further synthesize the concepts in the HL extension.

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

- develop an understanding of the dynamic interrelationships between people, places, spaces and the environment at different scales
- develop a critical awareness and consider complexity thinking in the context of the nexus of geographic issues, including:
 - acquiring an in-depth understanding of how geographic issues, or wicked problems, have been shaped by powerful human and physical processes
 - synthesizing diverse geographic knowledge in order to form viewpoints about how these issues could be resolved.

II. Curriculum model overview

Syllabus component	Teaching hours	
	SL	HL
Geographic themes—seven options SL—two options; HL— three options <ul style="list-style-type: none"> • Freshwater • Oceans and coastal margins • Extreme environments • Geophysical hazards • Leisure, tourism and sport • Food and health • Urban environments 	60	90
SL and HL core Geographic perspectives—global change <ul style="list-style-type: none"> • Population distribution—changing population • Global climate—vulnerability and resilience • Global resource consumption and security 	70	70

HL only Geographic perspectives—global interactions • Power, places and networks • Human development and diversity • Global risks and resilience		60
Internal assessment SL and HL Fieldwork Fieldwork, leading to one written report based on a fieldwork question, information collection and analysis with evaluation	20	20
Total teaching hours	150	240

Assessment at a glance

Type of assessment	Format of assessment	Time (hours)		Weighting of final grade (%)	
		SL	HL	SL	HL
External		2.75	4.5	75	80
Paper 1	Each option has a structured question and one extended answer question from a choice of two.	1.5	2.25	35	35
Paper 2	Three structured questions, based on each SL/HL core unit. Infographic or visual stimulus, with structured questions. One extended answer question from a choice of two.	1.25	1.25	40	25
Paper 3	Choice of three extended answer questions, with two parts, based on each HL core extension unit.		1		20
Internal		20	20	25	20
Fieldwork	One written report based on a fieldwork question from any suitable syllabus topic, information collection and analysis with evaluation.	20	20	25	20

III. Assessment model

There are four assessment objectives (AOs) for the SL and HL geography course. Having followed the course at SL or HL, students will be expected to do the following:

1. Demonstrate knowledge and understanding of specified content

- the core theme—global change
- two optional themes at SL and three optional themes at HL
- at HL, the HL extension—global interactions
- in internal assessment, a specific geographic research topic.

2. Demonstrate application and analysis of knowledge and understanding

- apply and analyse geographic concepts and theories
- identify and interpret geographic patterns and processes in unfamiliar information, data and cartographic material
- demonstrate the extent to which theories and concepts are recognized and understood in particular contexts.

3. Demonstrate synthesis and evaluation

- examine and evaluate geographic concepts, theories and perceptions
- use geographic concepts and examples to formulate and present an argument
- evaluate materials using methodology appropriate for geographic fieldwork
- at HL only, demonstrate synthesis and evaluation of the HL extension—global interactions.

4. Select, use and apply a variety of appropriate skills and techniques

- select, use and apply:
 - prescribed geographic skills in appropriate contexts
 - techniques and skills appropriate to a geographic research question.
- produce well-structured written material, using appropriate terminology.

IV. Sample questions

- Examine the role of plate margin type in determining the severity of volcanic hazards.
- Evaluate the success of attempts to predict tectonic hazard event and their possible impacts.
- Evaluate the role of agribusiness and new technologies in increasing world food supply.
- Examine the relationship between food security and health.
- Using examples, analyse how technological developments can threaten the security of states.
- To what extent does a global culture exist?

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Complete subject guides can be accessed through the IB online curriculum centre (OCC) or purchased through the IB store: <http://store.ibo.org>.

For more on how the DP prepares students for success at university, visit: www.ibo.org/recognition or email: recognition@ibo.org.

International Baccalaureate Diploma Programme Subject Brief

Individuals and societies: Global politics—higher level

First assessments 2017—last assessments 2024

The IB Diploma Programme (DP) is a rigorous, academically challenging and balanced programme of education designed to prepare students aged 16 to 19 for success at university and life beyond. The DP aims to encourage students to be knowledgeable, inquiring, caring and compassionate, and to develop intercultural understanding, open-mindedness and the attitudes necessary to respect and evaluate a range of viewpoints. Approaches to teaching and learning (ATL) are deliberate strategies, skills and attitudes that permeate the teaching and learning environment. In the DP, students develop skills from five ATL categories: thinking, research, social, self-management and communication.

To ensure both breadth and depth of knowledge and understanding, students must choose six courses from six distinct groups: 1) studies in language and literature; 2) language acquisition; 3) individuals and societies; 4) sciences; 5) mathematics; 6) the arts. Students may choose to replace the arts course with a second course from one of the other five groups. At least three, and not more than four, subjects are taken at higher level (240 recommended teaching hours), while the remaining are taken at standard level (150 recommended teaching hours). In addition, three core elements—the extended essay, theory of knowledge and creativity, activity, service—are compulsory and central to the philosophy of the programme.



These DP subject briefs illustrate four key course components.

- I. Course description and aims
- II. Curriculum model overview

- III. Assessment model
- IV. Sample questions

I. Course description and aims

The DP 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.

Teachers explicitly teach thinking and research skills such as comprehension, text analysis, transfer, and use of primary sources. 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 aims of the global politics course are to enable students to:

- understand key political concepts and contemporary political issues in a range of contexts
- develop an understanding of the local, national, international and global dimensions of political activity
- understand, appreciate and critically engage with a variety of perspectives and approaches in global politics
- appreciate the complex and interconnected nature of many political issues, and develop the capacity to interpret competing and contestable claims regarding those issues.

II. Curriculum model overview

Component	Recommended teaching hours
Core units: People, power and politics Four compulsory units: <ol style="list-style-type: none"> 1. Power, sovereignty and international relations 2. Human rights 3. Development 4. Peace and conflict 	130
Engagement activity An engagement on a political issue of personal interest, complemented with research.	20
HL extension: Global political challenges Political issues in two of the following six global political challenges are researched and presented through a case study approach. <ol style="list-style-type: none"> 1. Environment 2. Poverty 3. Health 4. Identity 5. Borders 6. Security 	90

III. Assessment model

There are four assessment objectives for the DP global politics course. Having followed the course at higher level (HL), students will be expected to meet the following objectives.

Assessment objective 1: Knowledge and understanding

- Demonstrate knowledge and understanding of key political concepts and contemporary issues in global politics.
- Demonstrate understanding of relevant source material.
- Demonstrate understanding of a political issue in a particular experiential situation.
- Demonstrate in-depth knowledge and understanding of political issues in two detailed case studies.

Assessment objective 2: Application and analysis

- Apply knowledge of key political concepts to analyse contemporary political issues in a variety of contexts.
- Identify and analyse relevant material and supporting examples.
- Use political concepts and examples to formulate, present and sustain an argument.
- Apply knowledge of global politics to inform and analyse experiential learning about a political issue.
- Apply knowledge of global politics to analyse political issues in two case studies.

Assessment objective 3: Synthesis and evaluation

- Compare, contrast, synthesize and evaluate evidence from sources and background knowledge.
- Compare, contrast, synthesize and evaluate a variety of perspectives and approaches to global politics, and evaluate political beliefs, biases and prejudices, and their origin.
- Synthesize and evaluate results of experiential learning and more theoretical perspectives on a political issue.
- Demonstrate synthesis and evaluation of different approaches to, and interpretations of, political issues in two case studies.

Assessment objective 4: Use and application of appropriate skills

- Produce well-structured written material that uses appropriate terminology.
- Organize material into a clear, logical, coherent and relevant response.
- Demonstrate evidence of research skills, organization and referencing.
- Present ideas orally with clarity.

Assessment at a glance

Type of assessment	Format of assessment	Time (hours)	Weighting of final grade (%)
External		4	60
Paper 1	Stimulus-based paper on a topic from one of the four core units	1.25	20
Paper 2	Extended response paper based on the four core units	2.75	40
Internal			
Engagement activity	A written report (2,000-word maximum) on a political issue explored through engagement and research.	20	20
HL extension: global political challenges	Two video-recorded oral presentations (10-minute maximum each) of two case studies chosen from two different HL extension topics.	90	20

IV. Sample questions

Paper 1

- According to the stimulus material, what are three advantages of NGOs over other actors in global politics?
- Explain the term “civil society”, using both the information in the sources and examples you have studied.

Paper 2

- “A national or regional approach to human rights enforcement is more effective than a global approach.” Discuss.
- Evaluate the claim that humanitarian intervention is a justifiable intrusion into the sovereignty of a state.

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International Baccalaureate Diploma Programme Subject Brief

Individuals and societies:

Global politics—standard level

First assessments 2017—last assessments 2024

The IB Diploma Programme (DP) is a rigorous, academically challenging and balanced programme of education designed to prepare students aged 16 to 19 for success at university and life beyond. The DP aims to encourage students to be knowledgeable, inquiring, caring and compassionate, and to develop intercultural understanding, open-mindedness and the attitudes necessary to respect and evaluate a range of viewpoints. Approaches to teaching and learning (ATL) are deliberate strategies, skills and attitudes that permeate the teaching and learning environment. In the DP, students develop skills from five ATL categories: thinking, research, social, self-management and communication.

To ensure both breadth and depth of knowledge and understanding, students must choose six courses from six distinct groups: 1) studies in language and literature; 2) language acquisition; 3) individuals and societies; 4) sciences; 5) mathematics; 6) the arts. Students may choose to replace the arts course with a second course from one of the other five groups. At least three, and not more than four, subjects are taken at higher level (240 recommended teaching hours), while the remaining are taken at standard level (150 recommended teaching hours). In addition, three core elements—the extended essay, theory of knowledge and creativity, activity, service—are compulsory and central to the philosophy of the programme.



These DP subject briefs illustrate four key course components.

- I. Course description and aims
- II. Curriculum model overview

- III. Assessment model
- IV. Sample questions

I. Course description and aims

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 DP 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” provides a uniquely rich context in which to explore the relationship between people and power. Teachers explicitly teach thinking and research skills such as comprehension, text analysis, transfer, and use of primary sources.

The aims of the global politics course are to enable students to:

- understand key political concepts and contemporary political issues in a range of contexts
- develop an understanding of the local, national, international and global dimensions of political activity
- understand, appreciate and critically engage with a variety of perspectives and approaches in global politics
- appreciate the complex and interconnected nature of many political issues, and develop the capacity to interpret competing and contestable claims regarding those issues.

II. Curriculum model overview

Component	Recommended teaching hours
Core units: People, power and politics Four compulsory units: <ol style="list-style-type: none"> 1. Power, sovereignty and international relations 2. Human rights 3. Development 4. Peace and conflict 	130
Engagement activity An engagement on a political issue of personal interest, complemented with research.	20

III. Assessment model

There are four assessment objectives for the DP global politics course. Having followed the course at standard level (SL), students will be expected to meet the following objectives.

Assessment objective 1: Knowledge and understanding

- Demonstrate knowledge and understanding of key political concepts and contemporary issues in global politics.
- Demonstrate understanding of relevant source material.
- Demonstrate understanding of a political issue in a particular experiential situation.

Assessment objective 2: Application and analysis

- Apply knowledge of key political concepts to analyse contemporary political issues in a variety of contexts.
- Identify and analyse relevant material and supporting examples.
- Use political concepts and examples to formulate, present and sustain an argument.
- Apply knowledge of global politics to inform and analyse experiential learning about a political issue.

Assessment objective 3: Synthesis and evaluation

- Compare, contrast, synthesize and evaluate evidence from sources and background knowledge.
- Compare, contrast, synthesize and evaluate a variety of perspectives and approaches to global politics, and evaluate political beliefs, biases and prejudices, and their origin.
- Synthesize and evaluate results of experiential learning and more theoretical perspectives on a political issue.

Assessment objective 4: Use and application of appropriate skills

- Produce well-structured written material that uses appropriate terminology.
- Organize material into a clear, logical, coherent and relevant response.
- Demonstrate evidence of research skills, organization and referencing.

Assessment at a glance

Type of assessment	Format of assessment	Time (hours)	Weighting of final grade (%)
External		3	75
Paper 1	Stimulus-based paper based on a topic from one of the four core units	1.25	30
Paper 2	Extended response paper based on the four core units	1.75	45
Internal			
Engagement activity	A written report (2,000-word maximum) on a political issue explored through engagement and research.	20	25

IV. Sample questions

Paper 1

- Contrast the views of two sources within the stimulus material regarding the relationship between NGOs and the state.
- “NGOs are insignificant actors in global politics.” Using the sources and your own knowledge evaluate this claim.

Paper 2

- To what extent is state sovereignty an outdated concept in the 21st century?
- Evaluate the claim that humanitarian intervention is a justifiable intrusion into the sovereignty of a state.

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International Baccalaureate Diploma Programme Subject Brief

Individuals and societies: History—higher level

First assessments 2017—last assessments 2025

The IB Diploma Programme (DP) is a rigorous, academically challenging and balanced programme of education designed to prepare students aged 16 to 19 for success at university and life beyond. The DP aims to encourage students to be knowledgeable, inquiring, caring and compassionate, and to develop intercultural understanding, open-mindedness and the attitudes necessary to respect and evaluate a range of viewpoints. Approaches to teaching and learning (ATL) are deliberate strategies, skills and attitudes that permeate the teaching and learning environment. In the DP, students develop skills from five ATL categories: thinking, research, social, self-management and communication.

To ensure both breadth and depth of knowledge and understanding, students must choose six courses from six distinct groups: 1) studies in language and literature; 2) language acquisition; 3) individuals and societies; 4) sciences; 5) mathematics; 6) the arts. Students may choose to replace the arts course with a second course from one of the other five groups. At least three, and not more than four, subjects are taken at higher level (240 recommended teaching hours), while the remaining are taken at standard level (150 recommended teaching hours). In addition, three core elements—the extended essay, theory of knowledge and creativity, activity, service—are compulsory and central to the philosophy of the programme.



These DP subject briefs illustrate four key course components.

- I. Course description and aims
- II. Curriculum model overview

- III. Assessment model
- IV. Sample questions

I. Course description and aims

The 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. Teachers explicitly teach thinking and research skills such as comprehension, text analysis, transfer, and use of primary sources.

There are six key concepts that have particular prominence throughout the DP history course: change, continuity, causation, consequence, significance and perspectives.

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

- develop an understanding of, and continuing interest in, the past
- encourage students to engage with multiple perspectives and to appreciate the complex nature of historical concepts, issues, events and developments
- promote international-mindedness through the study of history from more than one region of the world

- 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
- develop key historical skills, including engaging effectively with sources
- increase students' understanding of themselves and of contemporary society by encouraging reflection on the past.

II. Curriculum model overview

Component	Recommended teaching hours
Prescribed subjects One of the following, using two case studies, each taken from a different region of the world: <ol style="list-style-type: none"> 1. Military leaders 2. Conquest and its impact 3. The move to global war 4. Rights and protest 5. Conflict and intervention 	40

World history topics Two of the following, using topic examples from more than one region of the world: <ol style="list-style-type: none"> 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) 	90
HL options: Depth studies One of the following: <ol style="list-style-type: none"> 1. History of Africa and the Middle East 2. History of the Americas 3. History of Asia and Oceania 4. History of Europe 	90
Internal assessment Historical investigation	20

Assessment objective 4: Use and application of appropriate skills

- Structure and develop focused essays that respond effectively to the demands of a question.
- Reflect on the methods used by, and challenges facing, the historian.
- Formulate an appropriate, focused question to guide a historical inquiry.
- Demonstrate evidence of research skills, organization, reference and selection of appropriate sources.

Assessment at a glance

Type of assessment	Format of assessment	Time (hours)	Weighting of final grade (%)
External		5	80
Paper 1	Source-based paper based on the five prescribed subjects	1	20
Paper 2	Essay paper based on the 12 world history topics	1.5	25
Paper 3	Essay paper based on one of the four regional options	2.5	35
Internal			
Historical investigation	A historical investigation into a topic of the student's choice.	20	20

III. Assessment model

There are four assessment objectives for the DP history course. Having followed the course at higher level (HL), students will be expected to meet the following objectives.

Assessment objective 1: Knowledge and understanding

- Demonstrate detailed, relevant and accurate historical knowledge.
- Demonstrate understanding of historical concepts and context.
- Demonstrate understanding of historical sources.

Assessment objective 2: Application and analysis

- Formulate clear and coherent arguments.
- Use relevant historical knowledge to effectively support analysis.
- Analyse and interpret a variety of sources.

Assessment objective 3: Synthesis and evaluation

- Integrate evidence and analysis to produce a coherent response.
- Evaluate different perspectives on historical issues and events, and integrate this evaluation effectively into a response.
- Evaluate sources as historical evidence, recognizing their value and limitations.
- Synthesize information from a selection of relevant sources.

IV. Sample questions

Paper 1

When presented with five sources related to the enforcements of the provisions of the treaties, disarmament and London Naval Conference (1930), students will:

- explain the significance of the Conference
- compare and contrast the views of the Conference presented in different sources
- assess the value and limitations of sources
- use the sources and their own knowledge to discuss the extent to which they agree with the view that the London Naval Conference was unsuccessful.

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International Baccalaureate Diploma Programme Subject Brief

Individuals and societies: History—standard level

First assessments 2017—last assessments 2025

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To ensure both breadth and depth of knowledge and understanding, students must choose six courses from six distinct groups: 1) studies in language and literature; 2) language acquisition; 3) individuals and societies; 4) sciences; 5) mathematics; 6) the arts. Students may choose to replace the arts course with a second course from one of the other five groups. At least three, and not more than four, subjects are taken at higher level (240 recommended teaching hours), while the remaining are taken at standard level (150 recommended teaching hours). In addition, three core elements—the extended essay, theory of knowledge and creativity, activity, service—are compulsory and central to the philosophy of the programme.



These DP subject briefs illustrate four key course components.

- I. Course description and aims
- II. Curriculum model overview

- III. Assessment model
- IV. Sample questions

I. Course description and aims

The 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. Teachers explicitly teach thinking and research skills such as comprehension, text analysis, transfer, and use of primary sources.

There are six key concepts that have particular prominence throughout the DP history course: change, continuity, causation, consequence, significance and perspectives.

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

- develop an understanding of, and continuing interest in, the past
- encourage students to engage with multiple perspectives and to appreciate the complex nature of historical concepts, issues, events and developments
- promote international-mindedness through the study of history from more than one region of the world

- 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
- develop key historical skills, including engaging effectively with sources
- increase students' understanding of themselves and of contemporary society by encouraging reflection on the past.

II. Curriculum model overview

Component	Recommended teaching hours
Prescribed subjects One of the following, using two case studies, each taken from a different region of the world: <ol style="list-style-type: none"> 1. Military leaders 2. Conquest and its impact 3. The move to global war 4. Rights and protest 5. Conflict and intervention 	40

World history topics Two of the following, using topic examples from more than one region of the world: <ol style="list-style-type: none"> 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) 	90
Internal assessment Historical investigation	20

Assessment objective 4: Use and application of appropriate skills

- Structure and develop focused essays that respond effectively to the demands of a question.
- Reflect on the methods used by, and challenges facing, the historian.
- Formulate an appropriate, focused question to guide a historical inquiry.
- Demonstrate evidence of research skills, organization, reference and selection of appropriate sources.

Assessment at a glance

Type of assessment	Format of assessment	Time (hours)	Weighting of final grade (%)
External		2.5	75
Paper 1	Source-based paper based on the five prescribed subjects	1	30
Paper 2	Essay paper based on the 12 world history topics	1.5	45
Internal			
Historical investigation	A historical investigation into a topic of the student's choice.	20	25

III. Assessment model

There are four assessment objectives for the DP history course. Having followed the course at standard level (SL), students will be expected to meet the following objectives.

Assessment objective 1: Knowledge and understanding

- Demonstrate detailed, relevant and accurate historical knowledge.
- Demonstrate understanding of historical concepts and context.
- Demonstrate understanding of historical sources.

Assessment objective 2: Application and analysis

- Formulate clear and coherent arguments.
- Use relevant historical knowledge to effectively support analysis.
- Analyse and interpret a variety of sources.

Assessment objective 3: Synthesis and evaluation

- Integrate evidence and analysis to produce a coherent response.
- Evaluate different perspectives on historical issues and events, and integrate this evaluation effectively into a response.
- Evaluate sources as historical evidence, recognizing their value and limitations.
- Synthesize information from a selection of relevant sources.

IV. Sample questions

Paper 2 (HL and SL)

- Examine the impact of industrialization on standards of living and working conditions in one country.
- Compare and contrast the impact on women of the policies of two authoritarian states, each chosen from a different region.
- Compare and contrast the role of technology in determining the outcome of two 20th-century wars.
- Examine the impact of the US policy of containment on superpower relations between 1947 and 1964.

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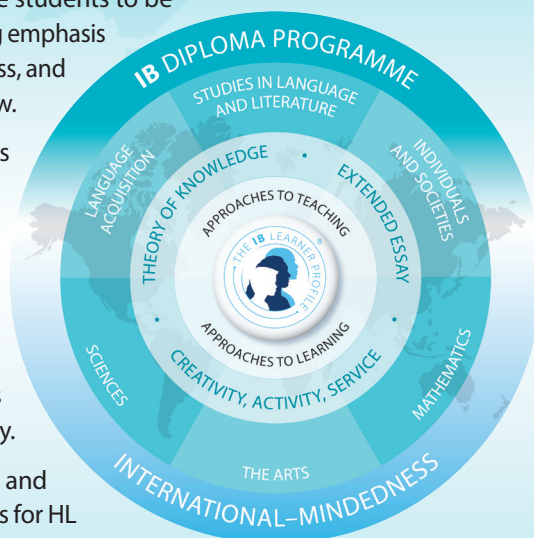
Individuals and societies: Digital society

First assessment 2024

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

The course is presented as six academic areas enclosing a central core. Students study two modern languages (or a modern language and a classical language), a humanities or social science subject, an experimental science, mathematics and one of the creative arts. Instead of an arts subject, students can choose two subjects from another area. It is this comprehensive range of subjects that makes the Diploma Programme a demanding course of study designed to prepare students effectively for university entrance. In each of the academic areas students have flexibility in making their choices, which means they can choose subjects that particularly interest them and that they may wish to study further at university.

Normally, three subjects (and not more than four) are taken at higher level (HL), and the others are taken at standard level (SL). The IB recommends 240 teaching hours for HL subjects and 150 hours for SL. Subjects at HL are studied in greater depth and breadth than at SL. In addition, three core elements—the extended essay, theory of knowledge and creativity, activity, service—are compulsory and central to the philosophy of the programme.



I. Course description and aims

Digital society is an interdisciplinary course within the **individuals and societies** subject group. The course is designed for young people interested in exploring the impact and importance of digital systems and technologies in the contemporary world. Digital society is intended to appeal to a broad range of teachers in the social studies, media, humanities, IT and related subject areas.

The course integrates **concepts**, **content** and **contexts** through inquiry.

- **Concepts** such as expression, space and identity highlight powerful, pervasive and debatable perspectives that provide insight for inquiry.
- **Content** informs inquiry with details about digital systems including areas related to data, algorithms, media, AI, robotics and more.
- **Contexts** situate inquiry into areas significant to life in digital society including social, cultural and environmental contexts.

In addition, HL students consider important contemporary challenges and digital interventions.

The course aims support standard level (SL) and higher level (HL) students on their inquiry journey as they:

- **Focus** inquiry using course concepts, content and contexts as well as real-world examples
- **Explore** diverse sources relevant to digital society
- **Investigate** impacts and implications of digital systems for people and communities
- **Reflect** on emerging trends, future developments and further insights
- **Share** discoveries about digital society with others

II. Curriculum model overview

The recommended teaching time is 150 hours to complete the SL course and 240 hours to complete the HL course. Students and teachers enjoy a great deal of freedom to personalize and integrate the required course components as outlined below.

Component		
Introduction		
1.1 What is digital society?		
Concepts	Content	Contexts
2.1 Change	3.1 Data	4.1 Cultural
2.2 Expression	3.2 Algorithms	4.2 Economic
2.3 Identity	3.3 Computers	4.3 Environmental
2.4 Power	3.4 Networks and the internet	4.4 Health
2.5 Space	3.5 Media	4.5 Human knowledge
2.6 Systems	3.6 Artificial intelligence	4.6 Political
2.7 Values and ethics	3.7 Robots and autonomous technologies	4.7 Social
Inquiry Project (internal assessment)	HL extension: challenges and interventions	
An inquiry project into impacts and implications of digital systems for people and communities. The requirements are common to SL and HL students.	5.1 Global well-being	
	5.2 Governance and human rights	
	5.3 Sustainable development	

III. Assessment model

Having followed the digital society course, students are expected to demonstrate the following assessment objectives.

Understand, apply, analyse, evaluate and synthesize:

- course topics, enduring understandings and areas for inquiry
- real-world examples involving digital systems
- claims and perspectives of diverse sources
- impacts and implications of digital systems for people and communities
- emerging trends and future developments
- challenges and interventions in digital society (HL only).

Develop and refine digital society skills including:

- managing inquiry projects through planning, documentation and feedback
- researching using diverse and relevant sources
- thinking in critical and creative ways
- communicating in multiple modes and media.

Assessment at a glance

Type of assessment	Format of assessment	Time (hours)		Weighting of final grade (%)	
		SL	HL	SL	HL
External		2.75	4.75	70	80
Paper 1	Questions that address the syllabus and real-world examples in an integrated way. In the HL extension, students also address challenges and interventions.	1.50	2.25	40	35
Paper 2	Source-based questions that address the syllabus in an integrated way.	1.25	1.25	30	20
Paper 3	Questions that address an intervention related to an HL extension challenge outlined in pre-released brief.		1.25		25
Internal		30	30	30	20
Inquiry project	A project into the impacts and implications of a chosen digital system for people and communities. Project is submitted with an inquiry process document, a recorded multimedia presentation and a list of references.	30	30	30	20

IV. Sample questions

- **Identify** different types of existing AI.
- **Outline** the ways that data is different from information.
- **Describe** a context and real-world example in which collecting data about online activity may pose privacy concerns for young people.
- **Examine** the claim that online social media fosters greater tolerance for diverse backgrounds and experiences. In the response, refer to a real-world example within one of the contexts listed below.
- **Discuss** whether the digital sharing economy represents change that is an evolution or a transformation.
- **Evaluate** the potential effectiveness of a given app (as described in stimulus material) in terms of equity and acceptability.

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International Baccalaureate Diploma Programme Subject Brief

Individuals and societies: Psychology

First assessment 2019

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

The course is presented as six academic areas enclosing a central core. Students study two modern languages (or a modern language and a classical language), a humanities or social science subject, an experimental science, mathematics and one of the creative arts. Instead of an arts subject, students can choose two subjects from another area. It is this comprehensive range of subjects that makes the Diploma Programme a demanding course of study designed to prepare students effectively for university entrance. In each of the academic areas students have flexibility in making their choices, which means they can choose subjects that particularly interest them and that they may wish to study further at university.

Normally, three subjects (and not more than four) are taken at higher level (HL), and the others are taken at standard level (SL). The IB recommends 240 teaching hours for HL subjects and 150 hours for SL. Subjects at HL are studied in greater depth and breadth than at SL.

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

This IB DP subject brief has four key components:

- I. Course description and aims II. Curriculum model overview III. Assessment model IV. Sample questions



I. Course description and aims

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

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

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

Psychologists employ a range of research methods, both qualitative and quantitative, to test their observations and hypotheses. DP psychology promotes an understanding of the various approaches to research and how they are used to critically reflect on the evidence as well as assist in the design, implementation, analysis and evaluation of the students'

own investigations. Surrounding the approaches and the options are the overarching themes of research and ethics. A consideration of both is paramount to the nature of the subject.

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

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

II. Curriculum model overview

Syllabus component	Teaching hours	
	SL	HL
Core	90	120
<ul style="list-style-type: none"> Biological approach to understanding behaviour Cognitive approach to understanding behaviour Sociocultural approach to understanding behaviour Approaches to researching behaviour 	20	60
Options	20	40
<ul style="list-style-type: none"> Abnormal psychology Developmental psychology Health psychology Psychology of human relationships 		
Internal assessment	20	20
Experimental study		
Total teaching hours	150	240

III. Assessment model

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

- Knowledge and comprehension of specified content
 - Demonstrate knowledge and comprehension of:
 - key terms and concepts in psychology
 - a range of psychological theories and studies
 - the biological, cognitive and sociocultural approaches to mental processes and behaviour
 - research methods used in psychology.
- Application and analysis
 - Demonstrate an ability to use examples of psychological research and psychological concepts to formulate an argument in response to a specific question.
 - Demonstrate application and analysis of:
 - a range of psychological theories and research studies
 - the knowledge relevant to areas of applied psychology.
 - At HL only, analyse qualitative and quantitative research in psychology.
- Synthesis and evaluation
 - Evaluate the contribution of:
 - psychological theories to understanding human psychology
 - research to understanding human psychology
 - the theories and research in areas of applied psychology.
 - At HL only, evaluate research scenarios from a methodological and ethical perspective.

- Selection and use of skills appropriate to psychology
 - Demonstrate the acquisition of skills required for experimental design, data collection and presentation, data analysis and the evaluation of a simple experiment while demonstrating ethical practice.
 - Work in a group to design a method for a simple experimental investigation, organize the investigation and record the required data for a simple experiment.
 - Write a report of a simple experiment.

Assessment at a glance

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

IV. Sample questions

- Outline one study investigating schema.
- Discuss ethical considerations linked to genetic research into human behaviour.
- (HL only)** Discuss how the use of technology affects one cognitive process.

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DP Subject Information

Group 4: Sciences

- Biology HL/SL
- Chemistry HL/SL
- Computer Science HL/SL
- Environmental Systems and Societies (SL only)*
- Physics HL/SL
- Sports Exercise and Health Science HL/SL

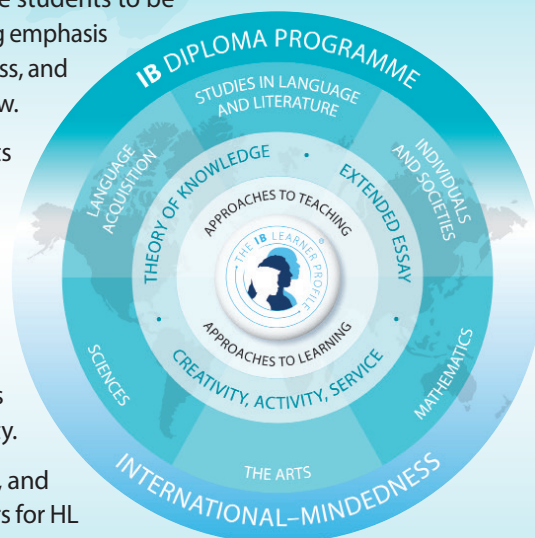
***Note:** Environmental Systems and Societies constitutes an interdisciplinary subject and counts towards both Group 3: Individuals and Societies or Group 4: Sciences.

Therefore, if a student does not wish to take any of the subjects offered in Group 4 they can opt for this and vice-versa.

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The course is presented as six academic areas enclosing a central core. Students study two modern languages (or a modern language and a classical language), a humanities or social science subject, an experimental science, mathematics and one of the creative arts. Instead of an arts subject, students can choose two subjects from another area. It is this comprehensive range of subjects that makes the Diploma Programme a demanding course of study designed to prepare students effectively for university entrance. In each of the academic areas students have flexibility in making their choices, which means they can choose subjects that particularly interest them and that they may wish to study further at university.

Normally, three subjects (and not more than four) are taken at higher level (HL), and the others are taken at standard level (SL). The IB recommends 240 teaching hours for HL subjects and 150 hours for SL. Subjects at HL are studied in greater depth and breadth than at SL. In addition, three core elements—the extended essay, theory of knowledge and creativity, activity, service—are compulsory and central to the philosophy of the programme.



I. Course description and aims

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

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

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

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

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

II. Curriculum model overview

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

The DP biology course is built on:

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

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

Syllabus component	Recommended teaching hours	
	SL	HL
Syllabus content	110	180
Unity and diversity	19	33
<ul style="list-style-type: none"> • Water • Nucleic acids • Origins of cells * • Cell structure • Viruses * • Diversity of organisms • Classification and cladistics * • Evolution and speciation • Conservation of biodiversity 		

Syllabus component	Recommended teaching hours	
	SL	HL
Form and function <ul style="list-style-type: none"> • Carbohydrates and lipids • Proteins • Membranes and membrane transport • Organelles and compartmentalization • Cell specialization • Gas exchange • Transport • Muscle and motility * • Adaptation to environment • Ecological niches 	26	39
Interaction and interdependence <ul style="list-style-type: none"> • Enzymes and metabolism • Cell respiration • Photosynthesis • Chemical signalling * • Neural signalling • Integration of body systems • Defence against disease • Populations and communities • Transfer of energy and matter 	31	48
Continuity and change <ul style="list-style-type: none"> • DNA replication • Protein synthesis • Mutations and gene editing • Cell and nuclear division • Gene expression * • Water potential • Reproduction • Inheritance • Homeostasis • Natural selection • Sustainability and change • Climate change 	34	60
Experimental programme	40	60
Practical work	20	40
Collaborative sciences project	10	10
Scientific investigation	10	10

* Topics with content that should only be taught to HL students

Skills in the study of biology

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

Tools

- Experimental techniques
- Technology
- Mathematics

Inquiry process

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

Teachers are encouraged to provide opportunities for students to encounter and practise the skills throughout the programme. Rather than being taught as stand-alone topics, these skills should be integrated into the teaching of the syllabus when they are relevant to the syllabus topics being covered.

III. Assessment model

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

Assessment objective 1

Demonstrate knowledge of:

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

Assessment objective 2

Understand and apply knowledge of:

- terminology and concepts
- skills, techniques and methodologies.

Assessment objective 3

Analyse, evaluate, and synthesize:

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

Assessment objective 4

Demonstrate the application of skills necessary to carry out insightful and ethical investigations.

Assessment at a glance

Type of assessment	Format of assessment	Time (hours)		Weighting of final grade
		SL	HL	
External		3	4.5	80
Paper 1	Paper 1A: Multiple-choice questions Paper 1B: Data-based questions (four questions that are syllabus related, addressing all themes)	1.5	2	36
Paper 2	Data-based and short-answer questions Extended-response questions	1.5	2.5	44
Internal		10		20
Scientific investigation	The scientific investigation is an open-ended task in which the student gathers and analyses data in order to answer their own formulated research question. The outcome of the scientific investigation will be assessed through the form of a written report. The maximum overall word count for the report is 3,000 words.	10		20

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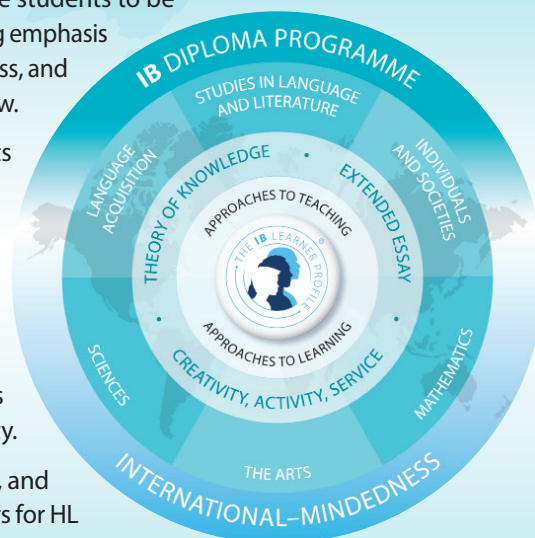
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The Diploma Programme (DP) is a rigorous pre-university course of study designed for students in the 16 to 19 age range. It is a broad-based two-year course that aims to encourage students to be knowledgeable and inquiring, but also caring and compassionate.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

The course is presented as six academic areas enclosing a central core. Students study two modern languages (or a modern language and a classical language), a humanities or social science subject, an experimental science, mathematics and one of the creative arts. Instead of an arts subject, students can choose two subjects from another area. It is this comprehensive range of subjects that makes the Diploma Programme a demanding course of study designed to prepare students effectively for university entrance. In each of the academic areas students have flexibility in making their choices, which means they can choose subjects that particularly interest them and that they may wish to study further at university.

Normally, three subjects (and not more than four) are taken at higher level (HL), and the others are taken at standard level (SL). The IB recommends 240 teaching hours for HL subjects and 150 hours for SL. Subjects at HL are studied in greater depth and breadth than at SL. In addition, three core elements—the extended essay, theory of knowledge and creativity, activity, service—are compulsory and central to the philosophy of the programme.



I. Course description and aims

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

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

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

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

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

II. Curriculum model overview

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

The DP chemistry course is built on:

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

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

Syllabus component	Recommended teaching hours	
	SL	HL
Syllabus content	110	180
Structure 1. Models of the particulate nature of matter Structure 1.1—Introduction to the particulate nature of matter Structure 1.2—The nuclear atom Structure 1.3—Electron configurations Structure 1.4—Counting particles by mass: The mole Structure 1.5—Ideal gases	17	21
Structure 2. Models of bonding and structure Structure 2.1—The ionic model Structure 2.2—The covalent model Structure 2.3—The metallic model Structure 2.4—From models to materials	20	30
Structure 3. Classification of matter Structure 3.1—The periodic table: Classification of elements Structure 3.2—Functional groups: Classification of organic compounds	16	31
Reactivity 1. What drives chemical reactions? Reactivity 1.1—Measuring enthalpy change Reactivity 1.2—Energy cycles in reactions Reactivity 1.3—Energy from fuels Reactivity 1.4—Entropy and spontaneity (Additional higher level)	12	22
Reactivity 2. How much, how fast and how far? Reactivity 2.1—How much? The amount of chemical change Reactivity 2.2—How fast? The rate of chemical change Reactivity 2.3—How far? The extent of chemical change	21	31

Reactivity 3. What are the mechanisms of chemical change?	24	45
Reactivity 3.1—Proton transfer reactions		
Reactivity 3.2—Electron transfer reactions		
Reactivity 3.3—Electron sharing reactions		
Reactivity 3.4—Electron-pair sharing reactions		
Experimental programme	40	60
Practical work	20	40
Collaborative sciences project	10	10
Scientific investigation	10	10

Skills in the study of chemistry

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

Tools

- Experimental techniques
- Technology
- Mathematics

Inquiry process

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

Teachers are encouraged to provide opportunities for students to encounter and practise the skills throughout the programme. Rather than being taught as stand-alone topics, these skills should be integrated into the teaching of the syllabus when they are relevant to the syllabus topics being covered.

III. Assessment model

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

Assessment objective 1

Demonstrate knowledge of:

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

Assessment objective 2

Understand and apply knowledge of:

- terminology and concepts
- skills, techniques and methodologies.

Assessment objective 3

Analyse, evaluate, and synthesize:

- experimental procedures
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- trends, patterns and predictions.

Assessment objective 4

Demonstrate the application of skills necessary to carry out insightful and ethical investigations.

Assessment at a glance

Type of assessment	Format of assessment	Time (hours)		Weighting of final grade
		SL	HL	
External		3	4.5	80
Paper 1	Paper 1A: Multiple-choice questions Paper 1B: Data-based questions and questions on experimental work	1.5	2	36
Paper 2	Short answer and extended-response questions	1.5	2.5	44
Internal		10		20
Scientific investigation	The scientific investigation is an open-ended task in which the student gathers and analyses data in order to answer their own formulated research question. The outcome of the scientific investigation will be assessed through the form of a written report. The maximum overall word count for the report is 3,000 words.	10		20

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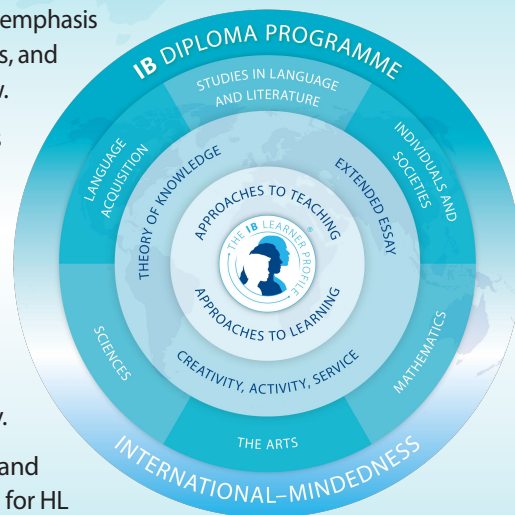
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I. Course description and aims

Computer science requires an understanding of the fundamental concepts of computational thinking as well as knowledge of how computers and other digital devices operate.

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

The course:

- draws on a wide spectrum of knowledge
- enables and empowers innovation, exploration and the acquisition of further knowledge
- raises ethical issues
- and is underpinned by computational thinking.

Computational thinking involves the ability to:

- think procedurally, logically, concurrently, abstractly and recursively
- utilize an experimental and inquiry-based approach to problem solving
- develop algorithms and express them clearly
- appreciate how theoretical and practical limitations affect the extent to which problems can be solved computationally.

During the course students will develop a computational solution. This will involve the ability to:

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

The course aims to enable students to:

1. develop conceptual understanding that allows connections to be made between different areas of the subject, and to other DP sciences subjects
2. acquire and apply a body of knowledge, methods, tools and techniques that characterize computer science
3. develop the ability to analyse, evaluate and synthesize information and claims relating to technological systems
4. develop the ability to approach unfamiliar situations with creativity and resilience
5. design, model and implement solutions to local and global problems to meet the requirements of clients, users and systems
6. develop an appreciation of the possibilities and limitations of computer science
7. develop the ability to evaluate the impact of emerging technologies on a range of stakeholders
8. develop the ability to communicate and collaborate effectively
9. develop awareness of the ethical, environmental, economic, cultural, and social impact of computer science
10. develop a critical awareness and understanding of threats to computer systems and their countermeasures.

II. Curriculum model overview

Syllabus component	Recommended teaching hours	
	SL	HL
Syllabus content	105	195
A. Systems in theory	38	79
B. Systems in practice	47	85
C. Systems in context	20	31
Practical programme	45	45
Computational solution report	35	35
Practical application of skills through the development of a computational solution		
Collaborative sciences project	10	10
Total teaching hours	150	240

III. Assessment model

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

1. Demonstrate knowledge and understanding of:

- a. facts, concepts, principles and terminology
- b. appropriate methods, techniques and technology
- c. methods of communicating and presenting technological information.

2. Apply and use:

- a. facts, concepts, principles and terminology
- b. software design methodology, techniques and technology
- c. methods of communicating and presenting technological information.

3. Construct, analyse and evaluate:

- a. user needs, system requirements, success criteria, system overview diagrams, testing strategies and programs
- b. appropriate techniques within a specified solution
- c. data, information and technological explanations.

4. Demonstrate the appropriate research, development, programming, modelling and personal skills necessary to carry out effective problem solving when developing a solution.

Assessment at a glance

Type of assessment	Format of assessment	Time (Weighting of final grade)	
		SL	HL
External		2 hours 45 minutes (70%)	4 hours (80%)
Paper 1	A problem-solving paper that includes questions requiring the reading, understanding, interpretation and writing of code in Java or Python.	1 hour 15 minutes (35%)	2 hours (40%)
Paper 2	This paper focuses on applying theory and practice to real-world contexts, and includes a structured question framed by a given technology context.	1 hour 30 minutes (35%)	2 hours (40%)
Internal		45 hours (30%)	45 hours (20%)
Computational solution report	An individual computational solution development project. Students produce a report that details the development of a computational solution following the software development life cycle (SDLC) process.	35 hours (30%)	35 hours (20%)

IV. Sample questions

Paper 1

When presented with code used by a company to assist the organisation of a music festival.

- State the relationship between the classes “Festival” and “Artist”.
- Construct the code required to create the linked list “ticketsSold” which is declared in the “Festival” main class.
- Explain one reason why a singly linked list would be used rather than a doubly linked list.

Paper 2

When presented with a scenario about software that uses sentiment analysis and autonomous trading agents.

- Identify two features of agile development.
- Justify the choice of either polling or interrupts as a means of notifying the central computer that an input device has recorded a conversation that is ready for analysis.
- Evaluate one positive and one negative consequence on society of using autonomous trading agents.

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International Baccalaureate Diploma Programme Subject Brief

Interdisciplinary course:

Environmental systems and societies—standard level

First assessments 2017—last assessments 2023

The IB Diploma Programme (DP) is a rigorous, academically challenging and balanced programme of education designed to prepare students aged 16 to 19 for success at university and life beyond. The DP aims to encourage students to be knowledgeable, inquiring, caring and compassionate, and to develop intercultural understanding, open-mindedness and the attitudes necessary to respect and evaluate a range of viewpoints. Approaches to teaching and learning (ATL) are deliberate strategies, skills and attitudes that permeate the teaching and learning environment. In the DP, students develop skills from five ATL categories: thinking, research, social, self-management and communication.

To ensure both breadth and depth of knowledge and understanding, students must choose six courses from six distinct groups: 1) studies in language and literature; 2) language acquisition; 3) individuals and societies; 4) sciences; 5) mathematics; 6) the arts. Students may choose to replace the arts course with a second course from one of the other five groups. At least three, and not more than four, subjects are taken at higher level (240 recommended teaching hours), while the remaining are taken at standard level (150 recommended teaching hours). In addition, three core elements—the extended essay, theory of knowledge and creativity, activity, service—are compulsory and central to the philosophy of the programme.

These DP subject briefs illustrate four key course components.

- I. Course description and aims
- II. Curriculum model overview



- III. Assessment model
- IV. Sample questions

I. Course description and aims

Environmental systems and societies (ESS) is an interdisciplinary course offered only at standard level (SL). This course can fulfill either the individuals and societies or the sciences requirement. Alternatively, this course enables students to satisfy the requirements of both subjects groups simultaneously while studying one course.

ESS is firmly grounded in both a scientific exploration of environmental systems in their structure and function, and in the exploration of cultural, economic, ethical, political and social interactions of societies with the environment. As a result of studying this course, students will become equipped with the ability to recognize and evaluate the impact of our complex system of societies on the natural world.

The interdisciplinary nature of the DP course requires a broad skill set from students, including the ability to perform research and investigations, participation in philosophical discussion and problem-solving. The course requires a systems approach to environmental understanding and promotes holistic thinking about environmental issues. Teachers explicitly teach thinking and research skills such as comprehension, text analysis, knowledge transfer and use of primary sources. They encourage students to develop solutions at the personal, community and global levels.

The aims of the DP **environmental systems and societies** course are to enable students to:

- acquire the knowledge and understandings of environmental systems and issues at a variety of scales
- apply the knowledge, methodologies and skills to analyse environmental systems and issues at a variety of scales
- appreciate the dynamic interconnectedness between environmental systems and societies
- value the combination of personal, local and global perspectives in making informed decisions and taking responsible actions on environmental issues
- be critically aware that resources are finite, that these could be inequitably distributed and exploited, and that management of these inequities is the key to sustainability
- develop awareness of the diversity of environmental value systems
- develop critical awareness that environmental problems are caused and solved by decisions made by individuals and societies that are based on different areas of knowledge
- engage with the controversies that surround a variety of environmental issues
- create innovative solutions to environmental issues by engaging actively in local and global contexts.

II. Curriculum model overview

Component	Recommended teaching hours
Core content	120
1. Foundations of environmental systems and societies	16
2. Ecosystems and ecology	25
3. Biodiversity and conservation	13
4. Water and aquatic food production systems and societies	15
5. Soil systems and terrestrial food production systems and societies	12
6. Atmospheric systems and societies	10
7. Climate change and energy production	13
8. Human systems and resource use	16
Practical scheme of work	30
Practical activities	20
Individual investigation	10

The group 4 project

ESS students have the option to participate in the group 4 project. For those who participate, 10 hours of practical activities will be replaced with 10 hours of work on the group 4 project.

The group 4 project is a collaborative activity where students from different group 4 subjects, within or between schools, work together. It allows for concepts and perceptions from across disciplines to be shared while appreciating the environmental, social and ethical implications of science and technology. It can be practically or theoretically based and aims to develop an understanding of the relationships between scientific disciplines and their influence on other areas of knowledge. The emphasis is on interdisciplinary cooperation and the scientific processes.

III. Assessment model

There are four assessment objectives for the DP environmental systems and societies course. Having followed the course at SL, students will be expected to do the following.

Assessment objective 1

Demonstrate knowledge and understanding of relevant:

- facts and concepts
- methodologies and techniques
- values and attitudes.

Assessment objective 2

Apply this knowledge and understanding in the analysis of:

- explanations, concepts and theories
- data and models
- case studies in unfamiliar contexts
- arguments and value systems.

Assessment objective 3

Evaluate, justify and synthesize, as appropriate:

- explanations, theories and models
- arguments and proposed solutions
- methods of fieldwork and investigation
- cultural viewpoints and value systems.

Assessment objective 4

Engage with investigations of environmental and societal issues at the local and global level through:

- evaluating the political, economic and social contexts of issues
- selecting and applying the appropriate research and practical skills necessary to carry out investigations
- suggesting collaborative and innovative solutions that demonstrate awareness and respect for the cultural differences and value systems of others.

Assessment at a glance

Type of assessment	Format of assessment	Time (hours)	Weighting of final grade (%)
External		3	75
Paper 1	Case study	1	25
Paper 2	Short answers and structured essays	2	50
Internal			
Individual investigation	Written report of a research question designed and implemented by the student.	10	25

IV. Sample questions

Paper 1

- With reference to source material, outline two possible reasons why the snow leopard has received special attention from conservationists. [8]
- With reference to figures 6, 7 and 9 [in the resource booklet] explain how desertification and water resource shortage have led to the formation of smog in Ulan Bator. [3]

Paper 2

- Outline how the reasons for food wastage may differ between human societies. [4]
- Explain how the choice of food production systems may influence the ecological footprint of a named human society. [7]
- Discuss how different environmental value systems influence responses to the human population growth rate. [9]

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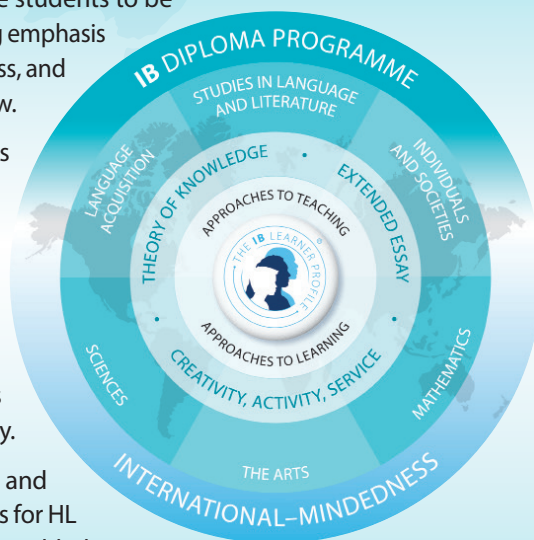
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The course is presented as six academic areas enclosing a central core. Students study two modern languages (or a modern language and a classical language), a humanities or social science subject, an experimental science, mathematics and one of the creative arts. Instead of an arts subject, students can choose two subjects from another area. It is this comprehensive range of subjects that makes the Diploma Programme a demanding course of study designed to prepare students effectively for university entrance. In each of the academic areas students have flexibility in making their choices, which means they can choose subjects that particularly interest them and that they may wish to study further at university.

Normally, three subjects (and not more than four) are taken at higher level (HL), and the others are taken at standard level (SL). The IB recommends 240 teaching hours for HL subjects and 150 hours for SL. Subjects at HL are studied in greater depth and breadth than at SL. In addition, three core elements—the extended essay, theory of knowledge and creativity, activity, service—are compulsory and central to the philosophy of the programme.



I. Course description and aims

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

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

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

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

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

8. develop the ability to communicate and collaborate effectively
9. develop awareness of the ethical, environmental, economic, cultural and social impact of science.

II. Curriculum model overview

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

The DP physics course is built on:

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

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

Syllabus component	Recommended teaching hours	
	SL	HL
Syllabus content	110	180
A Space, time and motion	27	42
A.1 Kinematics •		
A.2 Forces and momentum •		
A.3 Work, energy and power •		
A.4 Rigid body mechanics •••		
A.5 Galilean and special relativity •••		
B. The particulate nature of matter	24	32
B.1 Thermal energy transfers •		
B.2 Greenhouse effect •		
B.3 Gas laws •		
B.4 Thermodynamics •••		
B.5 Current and circuits •		
C. Wave behaviour	17	29
C.1 Simple harmonic motion ••		
C.2 Wave model •		
C.3 Wave phenomena ••		
C.4 Standing waves and resonance •		
C.5 Doppler effect ••		
D. Fields	19	38
D.1 Gravitational fields ••		
D.2 Electric and magnetic fields ••		
D.3 Motion in electromagnetic fields •		
D.4 Induction •••		

E. Nuclear and quantum physics	23	39
E.1 Structure of the atom ••		
E.2 Quantum physics •••		
E.3 Radioactive decay ••		
E.4 Fission •		
E.5 Fusion and stars •		
Experimental programme	40	60
Practical work	20	40
Collaborative sciences project	10	10
Scientific investigation	10	10

Key to table:

- Topics with content that should be taught to all students
- Topics with content that should be taught to all students plus additional HL content
- Topics with content that should only be taught to HL students

Skills in the study of physics

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

Tools

- Experimental techniques
- Technology
- Mathematics

Inquiry process

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

Teachers are encouraged to provide opportunities for students to encounter and practise the skills throughout the programme. Rather than being taught as stand-alone topics, these skills should be integrated into the teaching of the syllabus when they are relevant to the syllabus topics being covered.

III. Assessment model

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

Assessment objective 1

Demonstrate knowledge of:

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

Assessment objective 2

Understand and apply knowledge of:

- terminology and concepts
- skills, techniques and methodologies.

Assessment objective 3

Analyse, evaluate, and synthesize:

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

Assessment objective 4

Demonstrate the application of skills necessary to carry out insightful and ethical investigations.

Assessment at a glance

Type of assessment	Format of assessment	Time (hours)		Weighting of final grade
		SL	HL	
External		3	4.5	80
Paper 1	Paper 1A: Multiple-choice questions Paper 1B: Data-based questions	1.5	2	36
Paper 2	Short-answer and extended-response questions	1.5	2.5	44
Internal		10		20
Scientific investigation	The scientific investigation is an open-ended task in which the student gathers and analyses data in order to answer their own formulated research question. The outcome of the scientific investigation will be assessed through the form of a written report. The maximum overall word count for the report is 3,000 words.	10		20

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International Baccalaureate Diploma Programme Subject Brief

Sciences: Sports, exercise and health science

First assessments: SL – 2014; HL - 2018



The IB Diploma Programme (DP) is a rigorous, academically challenging and balanced programme of education designed to prepare students aged 16 to 19 for success at university and life beyond. The DP aims to encourage students to be knowledgeable, inquiring, caring and compassionate, and to develop intercultural understanding, open-mindedness and the attitudes necessary to respect and evaluate a range of viewpoints. Approaches to teaching and learning (ATL) are deliberate strategies, skills and attitudes that permeate the teaching and learning environment. In the DP students develop skills from five ATL categories: thinking, research, social, self-management and communication.

To ensure both breadth and depth of knowledge and understanding, students must choose at least one subject from five groups: 1) their best language, 2) additional language(s), 3) social sciences, 4) sciences, and 5) mathematics. Students may choose either an arts subject from group 6, or a second subject from groups 1 to 5. At least three and not more than four subjects are taken at higher level (240 recommended teaching hours), while the remaining are taken at standard level (150 recommended teaching hours). In addition, three core elements—the extended essay, theory of knowledge and creativity, activity, service—are compulsory and central to the philosophy of the programme.



These IB DP subject briefs illustrate four the following key course components

- I. Course description and aims
- II. Curriculum model overview

- III. Assessment model
- IV. Sample questions

I. Course description and aims

Sports, exercise and health science (SEHS) is an experimental science course combining academic study with practical and investigative skills. SEHS explores the science underpinning physical performance and provides the opportunity to apply these principles. The course incorporates the disciplines of anatomy and physiology, biomechanics, psychology and nutrition. Students cover a range of core and option topics, and carry out practical (experimental) investigations in both laboratory and field settings. The course offers a deeper understanding of the issues related to sports, exercise and health in the 21st century and addresses the international dimension and ethics related to both the individual and global context.

Apart from being worthy of study in its own right, SEHS is good preparation for courses in higher or further education related to sports fitness and health, and serves as useful preparation for employment in sports and leisure industries.

Both the SL and HL have a common core syllabus, internal assessment scheme, and overlapping elements in the options studied. While the skills and activities are common to all students, HL requires additional material and topics within the options.

Through studying any of the group 4 subjects, students should become aware of how scientists work and communicate, and the variety of forms of the “scientific method” with an emphasis on a practical approach through experimental work. In this context, the aims of SEHS is for students to:

- appreciate scientific study and creativity within a global context through stimulating and challenging opportunities
- acquire a body of knowledge, methods and techniques that characterize science and technology
- apply and use a body of knowledge, methods and techniques that characterize science and technology

- develop an ability to analyse, evaluate and synthesize scientific information
- develop a critical awareness of the need for, and the value of, effective collaboration and communication during scientific activities
- develop experimental and investigative scientific skills including the use of current technologies
- develop and apply 21st century communication skills in the study of science
- become critically aware, as global citizens, of the ethical implications of using science and technology
- develop an appreciation of the possibilities and limitations of science and technology
- develop an understanding of the relationships between scientific disciplines and their influence on other areas of knowledge.

II. Curriculum model overview

Syllabus component	Recommended teaching hours	
	SL	HL
Core	80	
• Anatomy		7
• Exercise physiology		17
• Energy systems		13
• Movement analysis		15
• Skill in sports		15
• Measurement and evaluation of human performance.		13

Additional higher level (AHL)		50
• Further anatomy		7
• The endocrine system		7
• Fatigue		6
• Friction and drag		8
• Skill acquisition and analysis		9
• Genetics and athletic performance		7
• Exercise and immunity.		6
Options (Two of four)	30	50
• Optimizing physiological performance		
• Psychology of sports		
• Physical activity and health		
• Nutrition for sports, exercise and health.		
Practical work	40	60
• Investigations	20	40
• Group 4 project	10	10
• Individual investigation (internal assessment)	10	10
Total teaching hours	150	240

The group 4 project

The group 4 project is a collaborative activity where students from different group 4 subjects, within or between schools, work together. It allows for concepts and perceptions from across disciplines to be shared while appreciating the environmental, social and ethical implications of science and technology. It can be practically or theoretically based and aims to develop an understanding of the relationships between scientific disciplines and their influence on other areas of knowledge. The emphasis is on interdisciplinary cooperation and the scientific processes.

III. Assessment model

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

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

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For more on how the DP prepares students for success at university, visit: www.ibo.org/recognition or email: recognition@ibo.org.

Assessment at a glance

Type of assessment	Format of assessment	Time (hours)		Weighting of final grade (%)	
		SL	HL	SL	HL
External		3	4.5	80	80
Paper 1	SL: 30 multiple choice questions on the core. HL: 40 multiple choice questions on the core and the AHL.	0.75	1	20	20
Paper 2	One data-based and several short answer questions SL: one extended response question. HL: two of four extended response questions.	1.25	2.25	35	35
Paper 3	Several short answer questions in each of the two options. HL: additional extended response questions.	1	1.25	25	25
Internal		10	10	20	20
Individual investigation		10	10	20	20

IV. Sample questions

- At rest, the arterio-venous oxygen difference is approximately 5 mL of oxygen per 100 mL of blood. What happens to this figure when someone participates in moderately intense exercise?
- Outline the general characteristics that are common to muscle tissue.
- **(HL only)** outline the term talent.
- **(HL only)** explain factors that may affect progression through the stages of talent evolution for an athlete according to Bloom (1985) and Cole (1999).
- **(HL only)** outline talent transfer from gymnastics to high board diving.

DP Subject Information

Group 5: Mathematics

- Math - Applications and interpretation HL
- Math - Applications and interpretation SL
- Math - Analysis and approaches HL
- Math - Analysis and approaches SL

International Baccalaureate Diploma Programme Subject Brief

Mathematics: analysis and approaches

First assessments for SL and HL—2021

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

The course is presented as six academic areas enclosing a central core. Students study two modern languages (or a modern language and a classical language), a humanities or social science subject, an experimental science, mathematics and one of the creative arts. Instead of an arts subject, students can choose two subjects from another area. It is this comprehensive range of subjects that makes the Diploma Programme a demanding course of study designed to prepare students effectively for university entrance. In each of the academic areas students have flexibility in making their choices, which means they can choose subjects that particularly interest them and that they may wish to study further at university.

Normally, three subjects (and not more than four) are taken at higher level (HL), and the others are taken at standard level (SL). The IB recommends 240 teaching hours for HL subjects and 150 hours for SL. Subjects at HL are studied in greater depth and breadth than at SL. In addition, three core elements—the extended essay, theory of knowledge and creativity, activity, service—are compulsory and central to the philosophy of the programme.

This IB DP subject brief has three key components:

- I. Course description and aims
- II. Curriculum model overview
- III. Assessment model



I. Course description and aims

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

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

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

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

II. Curriculum model overview

Mathematics: analysis and approaches and Mathematics: applications and interpretation share 60 hours of common SL content.

Syllabus component	Recommended teaching hours	
	SL	HL
<ul style="list-style-type: none"> Number and algebra Functions Geometry and trigonometry Statistics and probability Calculus 	19	39
Development of investigational, problem-solving and modelling skills and the exploration of an area of mathematics	30	30
Total teaching hours	150	240

III. Assessment model

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

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

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

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

Assessment at a glance

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

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International Baccalaureate Diploma Programme Subject Brief

Mathematics: applications and interpretation

First assessments for SL and HL—2021

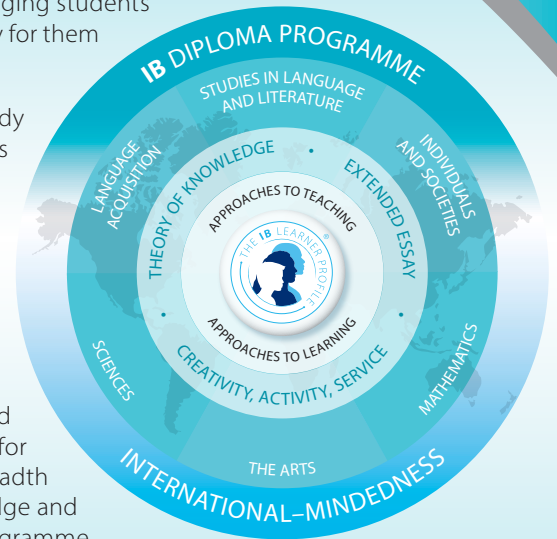
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The course is presented as six academic areas enclosing a central core. Students study two modern languages (or a modern language and a classical language), a humanities or social science subject, an experimental science, mathematics and one of the creative arts. Instead of an arts subject, students can choose two subjects from another area. It is this comprehensive range of subjects that makes the Diploma Programme a demanding course of study designed to prepare students effectively for university entrance. In each of the academic areas students have flexibility in making their choices, which means they can choose subjects that particularly interest them and that they may wish to study further at university.

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This IB DP subject brief has three key components:

- I. Course description and aims
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- III. Assessment model



I. Course description and aims

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

The IB DP Mathematics: applications and interpretation course recognizes the increasing role that mathematics and technology play in a diverse range of fields in a data-rich world. As such, it emphasizes the meaning of mathematics in context by focusing on topics that are often used as applications or in mathematical modelling. To give this understanding a firm base, this course includes topics that are traditionally part of a pre-university mathematics course such as calculus and statistics. Students are encouraged to solve real-world problems, construct and communicate this mathematically and interpret the conclusions or generalizations.

Students should expect to develop strong technology skills, and will be intellectually equipped to appreciate the links between the theoretical and the practical concepts in mathematics. All external assessments involve the use of technology. Students are also encouraged to develop the skills needed to continue their mathematical growth in other learning environments.

The internally assessed exploration allows students to develop independence in mathematical learning. Throughout the course students are encouraged to take a considered approach to various mathematical activities and to explore different mathematical ideas.

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

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

II. Curriculum model overview

Mathematics: applications and interpretation and Mathematics: analysis and approaches share 60 hours of common content.

Syllabus component	Recommended teaching hours	
	SL	HL
<ul style="list-style-type: none"> Number and algebra Functions Geometry and trigonometry Statistics and probability Calculus 	16 31 18 36 19	29 42 46 52 41
Development of investigational, problem-solving and modelling skills and the exploration of an area of mathematics	30	30
Total teaching hours	150	240

III. Assessment model

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

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- **Problem solving:** Recall, select and use their knowledge of mathematical skills, results and models in both abstract and real-world contexts to solve problems.
- **Communication and interpretation:** Transform common realistic contexts into mathematics; comment on the context; sketch or draw mathematical diagrams, graphs or constructions both on paper and using technology; record methods, solutions and conclusions using standardized notation; use appropriate notation and terminology.
- **Technology:** Use technology accurately, appropriately and efficiently both to explore new ideas and to solve problems.
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The exploration is an integral part of the course and its assessment, and is compulsory for both SL and HL students. It enables students to demonstrate the application of their skills and knowledge, and to pursue their personal interests, without the time limitations and other constraints that are associated with written examinations.

Assessment at a glance

Type of assessment	Format of assessment	Time (hours)		Weighting of final grade (%)	
		SL	HL	SL	HL
External					
Paper 1	Technology allowed. Compulsory short-response questions based on the syllabus.	1.5	2	40	30
Paper 2	Technology allowed. Compulsory extended-response questions based on the syllabus.	1.5	2	40	30
Paper 3	Technology allowed. Two compulsory extended-response problem-solving questions.		1		20
Internal					
Exploration		15	15	20	20

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DP Subject Information

Group 6: The Arts

- Music HL/SL
- Visual Arts HL/SL
- Free elective (another subject from IB Groups 3 or 4)

International Baccalaureate Diploma Programme Subject Brief

The arts: Music

First assessment 2022

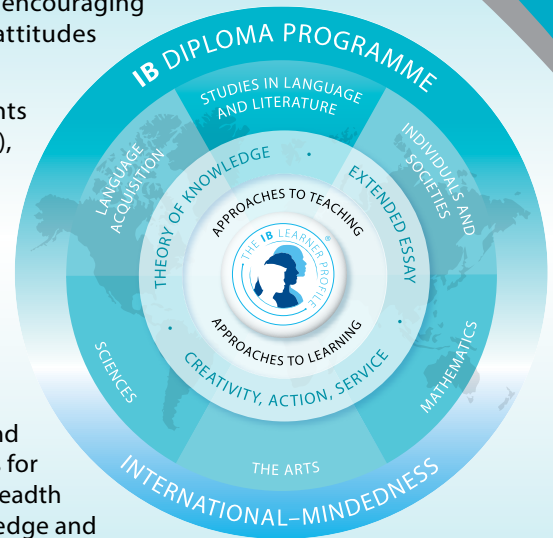
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These IB DP subject briefs illustrate the following key course components.

I. Course description and aims II. Curriculum model overview III. Assessment model



I. Course description and aims

The Diploma Programme Music course (for first teaching from 2020) has been designed to prepare the 21st century music student for a world in which global musical cultures and industries are rapidly changing.

The course is grounded in the knowledge, skills and processes associated with the study of music and offers a strengthened approach to student creativity through practical, informed and purposeful explorations of diverse musical forms, practices and contexts. The course also ensures a holistic approach to learning, with the roles of performer, creator and researcher afforded equal importance in all course components.

The aims of the music course are to enable students to:

- explore a range of musical contexts and make links to, and between, different musical practices, conventions and forms of expression
- acquire, develop and experiment with musical competencies through a range of musical practices, conventions and forms of expression, both individually and in collaboration with others
- evaluate and develop critical perspectives on their own music and the work of others.

Alignment with DP arts courses

The curriculum moves into alignment with other DP arts courses, through the clear articulation of the balance between the theoretical and practical disciplines of music. A new set of assessment tasks that link directly to the processes and roles experienced in the curriculum have been developed. These robust tasks address the concept of holistic musical development by removing optionality (and thereby the possibility to specialize in one skill at the expense of others) and incorporating practical music-making into all tasks. Assessment tasks are now presented as coursework, balanced between internal and external assessment. There are three common components at SL and HL, with a discrete HL extension component which invites students to work within the parameters of real-life music industry practices.

Engagement with diverse musical material

The new course seeks to be inclusive of students with wide-ranging personal and cultural musical backgrounds. In place of prescribed musical content, students and teachers in the new course have the agency to personalise unique approaches to musical forms, genres and pieces. The exploration of diverse musical material is focused through the lenses of four areas of inquiry.

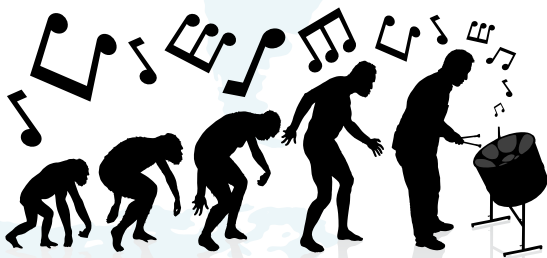
- Music for sociocultural and political expression
- Music for listening and performance,
- Music for dramatic impact, movement and entertainment
- Music technology in the electronic and digital age.



A framework for study and assessment

Engagement with these areas of inquiry takes place across three contexts—personal, local and global. These contexts invite students to move beyond familiar musical material (personal context), to experience music from the culture or community around them (local context), as well as engaging with previously unfamiliar music (global context). Combined with the contexts, the areas of inquiry offer a “matrix” onto which students can plot the variety of their musical encounters. This new flexibility is not only about choice in the learning, teaching and assessment—it is also about forging deep, life-long connections between students’ passions and interests and the wider world of music and music-making. All musical encounters are experienced in the roles of researcher, creator and performer, and are related through teaching and assessment to the processes of exploring, experimenting and presenting music. Academic rigour is assured through the requirement for students to critically analyse the music with which they engage, drawing information and conclusions which they then apply to their own practical music making through creating and performing.

What do students do in a music classroom?



Engage with a diverse range of music that will broaden their musical horizons and provide stimuli to expand their own music-making



Connect theoretical studies to practical work to gain a deeper understanding of the music they engage with.



Communicate and present music as researchers, creators and performers.

How are music students assessed?

Students at SL and HL submit the following common assessment tasks.

An exploration portfolio: Written work demonstrating engagement with, and understanding of, diverse musical material, along with practical exercises in creating and performing

An experimentation report: Written work in the form of a rationale and commentary that supports practical musical evidence of experimentation in creating and performing

A musical presentation: Finished works in creating and performing, supported by programme notes.

In addition, HL students will submit the following project.

A collaborative project: A continuous multimedia presentation documenting a real-life project, containing evidence of the project proposal, the process and evaluation, and the realized project, or curated selections of it.

By the end of the course students will have:

- broadened their musical horizons through engagement with diverse musical material
- analysed a wide range of music
- engaged with music technology as a compulsory part of the course
- gained confidence in the essential processes associated with music-making
- developed as holistic musicians with experience as creators and performers

- developed both independent and collaborative working skills
- honed their inquiry, reflection and critical thinking skills.

The course is ideal for students who ...

- are interested in both the practical and theoretical aspects of music-making
- respond to a creative approach to composition and performance
- value collaboration
- wish to experience a DP arts course
- plan to study music in university or college.

II. Curriculum model overview

Syllabus component	Teaching hours	
	SL	HL
Exploring music in context Students will learn how to engage with a diverse range of music that will broaden their musical horizons and provide stimuli to expand their own music-making. They will demonstrate diversity and breadth in their exploration by engaging with music from the areas of inquiry in personal, local and global contexts.	45	45
Experimenting with music Students connect theoretical studies to practical work and gain a deeper understanding of the music they engage with. Through this theoretical and practical work as researchers, creators and performers, they will learn to experiment with a range of musical material and stimuli from the areas of inquiry across local and global contexts.	45	45
Presenting music Students learn to practise and prepare finished pieces that will be performed or presented to an audience. In working towards completed musical works, they expand their musical identity, demonstrate their level of musicianship, and learn to share and communicate their music as researchers, creators and performers.	60	60
The contemporary music maker (HL only) Music at higher level (HL) builds on the learning of musical competencies and challenges students to engage with the musical processes in settings of contemporary music-making. For the HL component, students plan and collaboratively create a project that draws on the competencies, skills and processes in all of the musical roles of the music course and is inspired by real-life practices of music-making.	n/a	90
Total teaching hours	150	240

III. Assessment model

	External/ internal	SL	HL
Exploring music in context Students select samples of their work for a portfolio submission. Students submit: <ol style="list-style-type: none"> written work demonstrating engagement with, and understanding of, diverse musical material practical exercises in creating and performing 	External	30%	20%
Experimenting with music Students submit an experimentation report with evidence of their musical processes in creating and performing in two areas of inquiry in a local and/or global context. The report provides a rationale and commentary for each process. Students submit: <ol style="list-style-type: none"> a written experimentation report that supports the experimentation practical musical evidence of the experimentation process in creating and performing 	Internal	30%	20%
Presenting music Students submit a collection of works demonstrating engagement with diverse musical material from four areas of inquiry. The submission contains: <ol style="list-style-type: none"> Programme notes Presenting as a creator: composition and/or improvisation Presenting as a performer: solo and/or ensemble 	External	40%	30%
The contemporary music-maker (HL only) Students submit a continuous multimedia presentation documenting their real-life project which evidences: <ol style="list-style-type: none"> the project proposal the process and evaluation the realized project, or curated selections of it. 	Internal		30%
		100%	100%

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International Baccalaureate Diploma Programme Subject Brief

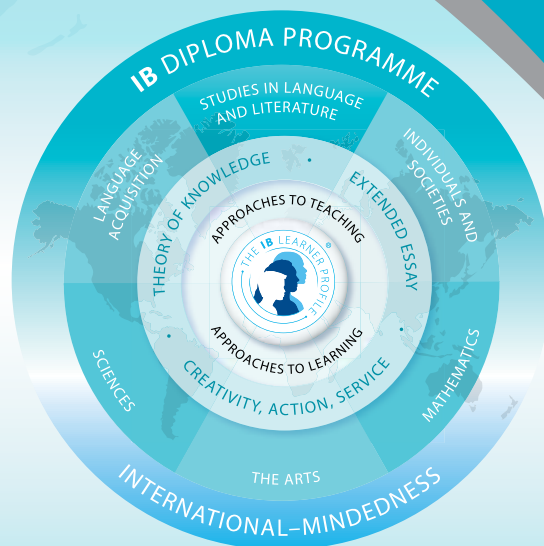
The arts:

Visual arts—Higher level

First assessments 2016 – Last assessments 2022

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To ensure both breadth and depth of knowledge and understanding, students must choose at least one subject from five groups: 1) their best language, 2) additional language(s), 3) social sciences, 4) experimental sciences, and 5) mathematics. Students may choose either an arts subject from group 6, or a second subject from groups 1 to 5. At least three and not more than four subjects are taken at higher level (240 recommended teaching hours), while the remaining are taken at standard level (150 recommended teaching hours). In addition, three core elements—the extended essay, theory of knowledge and creativity, action, service—are compulsory and central to the philosophy of the programme.



These IB DP subject briefs illustrate three key course components.

I. Course description and aims

II. Curriculum model overview

III. Assessment model

I. Course description and aims

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 further study of visual arts in higher education as well as for those who are seeking lifelong enrichment through visual arts.

The role of visual arts teachers should be to actively and carefully organize learning experiences for the students, directing their study to enable them to reach their potential and satisfy the demands of the course. Students should be empowered to become autonomous, informed and skilled visual artists.

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.

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

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

II. Curriculum model overview

Component	Recommended teaching hours
Visual arts in context <ul style="list-style-type: none"> • Examine and compare the work of artists from different cultural contexts. • Consider the contexts influencing their own work and the work of others. • Make art through a process of investigation, thinking critically and experimenting with techniques. • Apply identified techniques to their own developing work. • Develop an informed response to work and exhibitions they have seen and experienced. • Begin to formulate personal intentions for creating and displaying their own artworks. 	80

<p>Visual arts methods</p> <ul style="list-style-type: none"> • Look at different techniques for making art. • Investigate and compare how and why different techniques have evolved and the processes involved. • Experiment with diverse media and explore techniques for making art. • Develop concepts through processes informed by skills, techniques and media. • Evaluate how their ongoing work communicates meaning and purpose. • Consider the nature of “exhibition”, and think about the process of selection and the potential impact of their work on different audiences. 	80
<p>Communicating visual arts</p> <ul style="list-style-type: none"> • Explore ways of communicating through visual and written means. • Make artistic choices about how to most effectively communicate knowledge and understanding. • Produce a body of artwork through a process of reflection and evaluation, showing a synthesis of skill, media and concept. • Select and present resolved works for exhibition. • Explain the ways in which the works are connected. • Discuss how artistic judgments impact the overall presentation. 	80

Throughout the course students are required to maintain a 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.

III. Assessment model

Having followed the visual arts course, students are expected to:

1. Demonstrate knowledge and understanding of specified content
 - Identify various contexts in which the visual arts can be created and presented
 - Describe artwork from differing contexts, and identify the ideas, conventions and techniques employed by the art-makers
 - Recognize the skills, techniques, media, forms and processes associated with the visual arts
 - Present work, using appropriate visual arts language, as appropriate to intentions
2. Demonstrate application and analysis of knowledge and understanding
 - Express concepts, ideas and meaning through visual communication

- Analyse artworks from a variety of different contexts
 - Apply knowledge and understanding of skills, techniques, media, forms and processes related to art-making
3. Demonstrate synthesis and evaluation
 - Critically analyse and discuss artworks created by themselves and others and articulate an informed personal response
 - Formulate personal intentions for the planning, development and making of artworks that consider how meaning can be conveyed to an audience
 - Demonstrate the use of critical reflection to highlight success and failure in order to progress work
 - Evaluate how and why art-making evolves and justify the choices made in their own visual practice
 4. Select, use and apply a variety of appropriate skills and techniques
 - Experiment with different media, materials and techniques in art-making
 - Make appropriate choices in the selection of images, media, materials and techniques in art-making
 - Demonstrate technical proficiency in the use and application of skills, techniques, media, images, forms and processes
 - Produce a body of resolved and unresolved artworks as appropriate to intentions

Assessment at a glance

Type of assessment	Format of assessment	Weighting of final grade (%)
External		60
Comparative study	<ul style="list-style-type: none"> • 10–15 screens which examine and compare at least 3 artworks, at least 2 of which need to be by different artists • 3–5 screens which analyse the extent to which the student’s work and practices have been influenced by the art and artists examined • A list of sources used 	20
Process portfolio	<ul style="list-style-type: none"> • 13–25 screens which evidence sustained experimentation, exploration, manipulation and refinement of a variety of art-making activities 	40
Internal		40
Exhibition	<ul style="list-style-type: none"> • A curatorial rationale that does not exceed 700 words • 8–11 artworks • Exhibition text (stating the title, medium, size and intention) for each artwork 	40

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International Baccalaureate Diploma Programme Subject Brief

The arts:

Visual arts—Standard level

First assessments 2016 – Last assessments 2022

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To ensure both breadth and depth of knowledge and understanding, students must choose at least one subject from five groups: 1) their best language, 2) additional language(s), 3) social sciences, 4) experimental sciences, and 5) mathematics. Students may choose either an arts subject from group 6, or a second subject from groups 1 to 5. At least three and not more than four subjects are taken at higher level (240 recommended teaching hours), while the remaining are taken at standard level (150 recommended teaching hours). In addition, three core elements—the extended essay, theory of knowledge and creativity, action, service—are compulsory and central to the philosophy of the programme.

These IB DP subject briefs illustrate three key course components.

I. Course description and aims

II. Curriculum model overview

III. Assessment model



I. Course description and aims

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.

The role of visual arts teachers should be to actively and carefully organize learning experiences for the students, directing their study to enable them to reach their potential and satisfy the demands of the course. Students should be empowered to become autonomous, informed and skilled visual artists.

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

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

II. Curriculum model overview

Component	Recommended teaching hours
<p>Visual arts in context</p> <ul style="list-style-type: none"> • Examine and compare the work of artists from different cultural contexts. • Consider the contexts influencing their own work and the work of others. • Make art through a process of investigation, thinking critically and experimenting with techniques. • Apply identified techniques to their own developing work. • Develop an informed response to work and exhibitions they have seen and experienced. • Begin to formulate personal intentions for creating and displaying their own artworks. 	50

visual arts methods

50

- Look at different techniques for making art.
- Investigate and compare how and why different techniques have evolved and the processes involved.
- Experiment with diverse media and explore techniques for making art.
- Develop concepts through processes informed by skills, techniques and media.
- Evaluate how their ongoing work communicates meaning and purpose.
- Consider the nature of “exhibition” and think about the process of selection and the potential impact of their work on different audiences.

Communicating visual arts

50

- Explore ways of communicating through visual and written means.
- Make artistic choices about how to most effectively communicate knowledge and understanding.
- Produce a body of artwork through a process of reflection and evaluation, showing a synthesis of skill, media and concept.
- Select and present resolved works for exhibition.
- Explain the ways in which the works are connected.
- Discuss how artistic judgments impact the overall presentation.

Throughout the course students are required to maintain a 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.

III. Assessment model

Having followed the visual arts course, students are expected to:

1. Demonstrate knowledge and understanding of specified content
 - Identify various contexts in which the visual arts can be created and presented
 - Describe artwork from differing contexts, and identify the ideas, conventions and techniques employed by the art-makers
 - Recognize the skills, techniques, media, forms and processes associated with the visual arts
 - Present work, using appropriate visual arts language, as appropriate to intentions
2. Demonstrate application and analysis of knowledge and understanding
 - Express concepts, ideas and meaning through visual communication

- Apply knowledge and understanding of skills, techniques, media, forms and processes related to art-making
3. Demonstrate synthesis and evaluation
 - Critically analyse and discuss artworks created by themselves and others and articulate an informed personal response
 - Formulate personal intentions for the planning, development and making of artworks that consider how meaning can be conveyed to an audience
 - Demonstrate the use of critical reflection to highlight success and failure in order to progress work
 - Evaluate how and why art-making evolves and justify the choices made in their own visual practice
 4. Select, use and apply a variety of appropriate skills and techniques
 - Experiment with different media, materials and techniques in art-making
 - Make appropriate choices in the selection of images, media, materials and techniques in art-making
 - Demonstrate technical proficiency in the use and application of skills, techniques, media, images, forms and processes
 - Produce a body of resolved and unresolved artworks as appropriate to intentions

Assessment at a glance

Type of assessment	Format of assessment	Weighting of final grade (%)
External		60
Comparative study	<ul style="list-style-type: none"> • 10–15 screens which examine and compare at least 3 artworks, at least 2 of which should be by different artists • A list of sources used 	20
Process portfolio	<ul style="list-style-type: none"> • 9–18 screens which evidence the student’s sustained experimentation, exploration, manipulation and refinement of a variety of art-making activities 	40
Internal		40
Exhibition	<ul style="list-style-type: none"> • A curatorial rationale that does not exceed 400 words • 4–7 artworks • Exhibition text (stating the title, medium, size and intention) for each artwork 	40

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DP Subject Information

Core

- TOK
- Extended Essay
- CAS

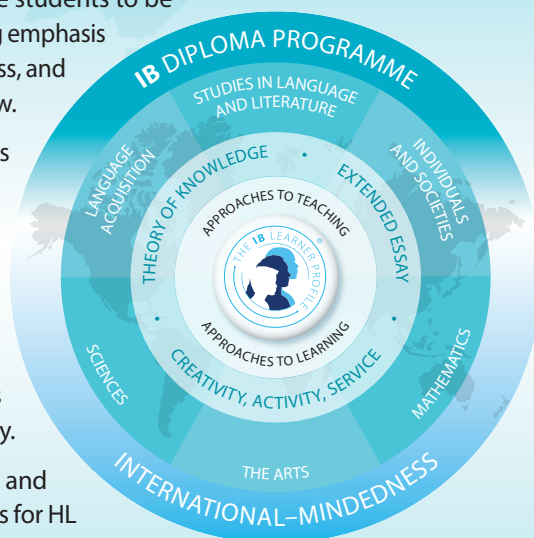
Diploma Programme core: Theory of knowledge

First assessment 2022

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

The course is presented as six academic areas enclosing a central core. Students study two modern languages (or a modern language and a classical language), a humanities or social science subject, an experimental science, mathematics and one of the creative arts. Instead of an arts subject, students can choose two subjects from another area. It is this comprehensive range of subjects that makes the Diploma Programme a demanding course of study designed to prepare students effectively for university entrance. In each of the academic areas students have flexibility in making their choices, which means they can choose subjects that particularly interest them and that they may wish to study further at university.

Normally, three subjects (and not more than four) are taken at higher level (HL), and the others are taken at standard level (SL). The IB recommends 240 teaching hours for HL subjects and 150 hours for SL. Subjects at HL are studied in greater depth and breadth than at SL. In addition, three core elements—the extended essay, theory of knowledge and creativity, activity, service—are compulsory and central to the philosophy of the programme.



I. Course description and aims

The theory of knowledge (TOK) course plays a special role in the DP by providing an opportunity for students to reflect on the nature, scope and limitations of knowledge and the process of knowing. In this way, the main focus of TOK is not on students acquiring new knowledge but on helping students to reflect on, and put into perspective, what they already know. TOK underpins and helps to unite the subjects that students encounter in the rest of their DP studies. It engages students in explicit reflection on how knowledge is arrived at in different disciplines and areas of knowledge, on what these areas have in common and the differences between them.

The aims of the TOK course are:

- to encourage students to reflect on the central question, “How do we know that?”, and to recognize the value of asking that question
- to expose students to ambiguity, uncertainty and questions with multiple plausible answers
- to equip students to effectively navigate and make sense of the world, and help prepare them to encounter novel and complex situations
- to encourage students to be more aware of their own perspectives and to reflect critically on their own beliefs and assumptions
- to engage students with multiple perspectives, foster open-mindedness and develop intercultural understanding
- to encourage students to make connections between academic disciplines by exploring underlying concepts and by identifying similarities and differences in the methods of inquiry used in different areas of knowledge
- to prompt students to consider the importance of values, responsibilities and ethical concerns relating to the production, acquisition, application and communication of knowledge.

II. Curriculum model overview

Course elements	Minimum teaching hours
<p>Core theme: Knowledge and the knower</p> <p>This theme provides an opportunity for students to reflect on themselves as knowers and thinkers, and on the different communities of knowers to which we belong.</p>	32
<p>Optional themes</p> <p>Students are required to study two optional themes from the following five options.</p> <ul style="list-style-type: none">• Knowledge and technology• Knowledge and language• Knowledge and politics• Knowledge and religion• Knowledge and indigenous societies	
<p>Areas of knowledge</p> <p>Students are required to study the following five areas of knowledge.</p> <ul style="list-style-type: none">• History• The human sciences• The natural sciences• The arts• Mathematics	50

III. Assessment model

Students are required to complete **two** assessment tasks for TOK.

- Theory of knowledge exhibition
- Theory of knowledge essay on a prescribed title

Assessment objectives

Having completed the TOK course, students should be able to:

- demonstrate TOK thinking through the critical examination of knowledge questions
- identify and explore links between knowledge questions and the world around us
- identify and explore links between knowledge questions and areas of knowledge
- develop relevant, clear and coherent arguments
- use examples and evidence effectively to support a discussion
- demonstrate awareness and evaluation of different points of view
- consider the implications of arguments and conclusions.

Assessment details

Type of assessment	Format of assessment	Hours	Weighting
External	Theory of knowledge essay	10	2/3 or 67%
Students are required to write an essay in response to one of the six prescribed titles that are issued by the IB for each examination session. As an external assessment component, it is marked by IB examiners.			
Internal	Theory of knowledge exhibition	8	1/3 or 33%
Students are required to create an exhibition of three objects with accompanying commentaries that explores how TOK manifests in the world around us. This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.			

IV. Sample questions

Specimen essay titles

- How important are the opinions of experts in the search for knowledge? Answer with reference to the arts and one other area of knowledge.
- Is the division of the natural sciences and mathematics into separate areas of knowledge artificial?
- When historians and natural scientists say that they have explained something, are they using the word “explain” in the same way?
- Are there fewer ethical constraints on the pursuit of knowledge in the arts than in the human sciences?
- How do our expectations impact our interpretations? Discuss with reference to history and one other area of knowledge.
- To what extent do you agree with the claim that “knowledge is of no value unless you put it into practice” (Anton Chekhov)? Answer with reference to two areas of knowledge.

Sample exhibition prompts

- What counts as knowledge?
- On what grounds might we doubt a claim?
- Are some types of knowledge less open to interpretation than others?
- Is bias inevitable in the production of knowledge?
- Should some knowledge not be sought on ethical grounds?
- What role do experts play in influencing our consumption or acquisition of knowledge?
- How can we distinguish between knowledge, belief and opinion?

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International Baccalaureate Diploma Programme Subject Brief

Diploma Programme Core:

Extended essay, including the world studies option

First assessment 2018

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To ensure both breadth and depth of knowledge and understanding, students must choose six courses from six distinct groups:

1) studies in language and literature; 2) language acquisition; 3) individuals and societies; 4) sciences; 5) mathematics; 6) the arts. Students may choose to replace the arts course with a second course from one of the other five groups. At least three, and not more than four, subjects are taken at higher level (240 recommended teaching hours), while the remaining are taken at standard level (150 recommended teaching hours). In addition, three core elements—the extended essay, theory of knowledge, and creativity, activity, service—are compulsory and central to the philosophy of the programme.

These DP subject briefs illustrate four key course components.

I. Course description and aims

II. Overview of the extended essay process

III. Assessment model

IV. Sample extended essay topics



I. Course description and aims

The extended essay is a compulsory, externally assessed piece of independent research into a topic chosen by the student and presented as a formal piece of academic writing. The extended essay is intended to promote high-level research and writing skills, intellectual discovery and creativity while engaging students in personal research. This leads to a major piece of formally presented, structured writing of up to 4,000 words in which ideas and findings are communicated in a reasoned, coherent and appropriate manner.

Students are guided through the process of research and writing by an assigned supervisor (a teacher in the school). All students undertake three mandatory reflection sessions with their supervisor, including a short interview, or viva voce, following the completion of the extended essay.

Extended essay topics may be chosen from a list of approved DP subjects—normally one of the student's six chosen subjects for the IB diploma or the world studies option. World studies provides students with the opportunity to carry out an in-depth interdisciplinary study of an issue of contemporary global significance, using two IB disciplines.

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

- engage in independent research with intellectual initiative and rigour
- develop research, thinking, self-management and communication skills
- reflect on what has been learned throughout the research and writing process.

II. Overview of the extended essay process

The extended essay process

The research process

1. Choose the approved DP subject.
2. Choose a topic.
3. Undertake some preparatory reading.
4. **Formulate a well-focused research question.**
5. Plan the research and writing process.
6. Plan a structure (outline headings) for the essay. This may change as the research develops.
7. Carry out the research.

Writing and formal presentation

The required elements of the final work to be submitted are as follows.

- Title page
- Contents page
- Introduction
- Body of the essay
- Conclusion
- References and bibliography

The upper limit of 4,000 words includes the introduction, body, conclusion and any quotations.

Reflection process

As part of the supervision process, students undertake three mandatory reflection sessions with their supervisor. These sessions form part of the formal assessment of the extended essay and research process. The purpose of these sessions is to provide an opportunity for students to reflect on their engagement with the research process and is intended to help students consider the effectiveness of their choices, re-examine their ideas and decide on whether changes are needed. The final reflection session is the viva voce.

The viva voce is a short interview (10–15 minutes) between the student and the supervisor, and is a mandatory conclusion to the process.

The viva voce serves as:

- a check on plagiarism and malpractice in general
- an opportunity to reflect on successes and difficulties
- an opportunity to reflect on what has been learned
- an aid to the supervisor's report.

III. Assessment model

The extended essay, including the world studies option, is assessed against common criteria and is interpreted in ways appropriate to each subject. Students are expected to:

- provide a logical and coherent rationale for their choice of topic
- review what has already been written about the topic
- formulate a clear research question
- offer a concrete description of the methods used to investigate the question
- generate reasoned interpretations and conclusions based on their reading and independent research in order to answer the question
- reflect on what has been learned throughout the research and writing process.

Assessment at a glance

Assessment criteria	Description
Focus and method	The topic, the research question and the methodology are clearly stated.
Knowledge and understanding	The research relates to the subject area/discipline used to explore the research question, and knowledge and understanding is demonstrated through the use of appropriate terminology and concepts.
Critical thinking	Critical-thinking skills have been used to analyse and evaluate the research undertaken.
Presentation	The presentation follows the standard format expected for academic writing.
Engagement	The student's engagement with their research focus and the research process.

The extended essay contributes to the student's overall score for the diploma through the award of points in conjunction with theory of knowledge. A maximum of three points are awarded according to a student's combined performance in both the extended essay and theory of knowledge.

IV. Sample extended essay topics

- What is the relationship between the length of an exhaust pipe and the frequency of the sound it emits?
- How far was the Christian Democrat victory in the Italian elections of 1948 influenced by Cold War tensions?
- How effective is Friedrich Dürrenmatt's use of colour to convey his message in the play *Der Besuch der alten Dame*?

About the IB: For over 50 years the IB has built a reputation for high-quality, challenging programmes of education that develop internationally minded young people who are well prepared for the challenges of life in the 21st century and able to contribute to creating a better, more peaceful world.

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To learn more about how the IB Diploma Programme prepares students for success at university, visit: www.ibo.org/recognition or email: recognition@ibo.org

International Baccalaureate Diploma Programme Subject Brief

Creativity, activity, service

For students graduating in 2017 and after

The IB Diploma Programme (DP) is a rigorous, academically challenging and balanced programme of education designed to prepare students aged 16 to 19 for success at university and life beyond. The DP aims to encourage students to be knowledgeable, inquiring, caring and compassionate, and to develop intercultural understanding, open-mindedness and the attitudes necessary to respect and evaluate a range of viewpoints. Approaches to teaching and learning (ATL) are deliberate strategies, skills and attitudes that permeate the teaching and learning environment. In the DP, students develop skills from five ATL categories: thinking, research, social, self-management and communication.

To ensure both breadth and depth of knowledge and understanding, students must choose six courses from six distinct groups: 1) studies in language and literature; 2) language acquisition; 3) individuals and societies, 4) sciences; 5) mathematics; 6) the arts. Students may choose to replace the arts course with a second course from one of the other five groups. At least three, and not more than four, subjects are taken at higher level (240 recommended teaching hours), while the remaining are taken at standard level (150 recommended teaching hours). In addition, three core elements—the extended essay, theory of knowledge and creativity, activity, service—are compulsory and central to the philosophy of the programme.

These DP subject briefs illustrate four key course components.

- I. Description and aims
- II. Programme overview



- III. Learning outcomes
- IV. Sample projects

I. Description and aims

Creativity, activity, service (CAS) is at the heart of the DP. With its holistic approach, CAS is designed to strengthen and extend students' personal and interpersonal learning from the Primary Years Programme (PYP) and Middle Years Programme (MYP).

CAS is organized around the three strands of creativity, activity and service defined as follows.

- Creativity—exploring and extending ideas leading to an original or interpretive product or performance.
- Activity—physical exertion contributing to a healthy lifestyle.
- Service—collaborative and reciprocal engagement with the community in response to an authentic need.

CAS aims to develop students who:

- enjoy and find significance in a range of CAS experiences
- purposefully reflect upon their experiences
- identify goals, develop strategies and determine further actions for personal growth
- explore new possibilities, embrace new challenges and adapt to new roles
- actively participate in planned, sustained and collaborative CAS projects
- understand they are members of local and global communities with responsibilities towards each other and the environment.

A CAS experience is a specific event in which the student engages with one or more of the three CAS strands. It can be a single event or an extended series of events. A CAS project is a collaborative series of sequential CAS experiences lasting at least one month. Typically, a student's CAS

programme combines planned/unplanned singular and ongoing experiences. All are valuable and may lead to personal development. However, a meaningful CAS programme must be more than just a series of unplanned/singular experiences. Students must be involved in at least one CAS project during the programme.

II. Programme overview

The CAS programme formally begins at the start of the DP and continues regularly for at least 18 months with a reasonable balance between creativity, activity and service.

A CAS experience must:

- fit within one or more of the CAS strands
- be based on a personal interest, skill, talent or opportunity for growth
- provide opportunities to develop the attributes of the IB learner profile
- not be used or included in the student's DP course requirements.

CAS students have guidance at the school level through a variety of resources including the school's CAS handbook, information sessions and meetings. In addition, students have three formal interviews with the school's CAS coordinator/adviser.

Typically, students' service experiences involve the following stages.

- Investigation, preparation and action that meets an identified need.
- Reflection on significant experiences throughout to inform problem-solving and choices.
- Demonstration allowing for sharing of what has taken place.

All CAS students are expected to maintain and complete a CAS portfolio as evidence of their engagement with CAS. The CAS portfolio is a collection of evidence that showcases CAS experiences and student reflections; it is not formally assessed.

A school's CAS programme is evaluated as part of the school's regular programme evaluation and self-study process that assesses the overall implementation of the DP.

III. Learning outcomes

Completion of CAS is based on student achievement of the seven CAS learning outcomes. Through their CAS portfolio, students provide the school with evidence demonstrating achievement of each learning outcome. Some learning outcomes may be achieved many times, while others may be achieved less frequently. In their CAS portfolio, students provide the school with evidence of having achieved each learning outcome at least once through their CAS programme.

Learning outcome	Descriptor
Identify own strengths and develop areas for growth.	Students are able to see themselves as individuals with various abilities and skills, of which some are more developed than others.
Demonstrate that challenges have been undertaken, developing new skills in the process.	A new challenge may be an unfamiliar experience or an extension of an existing one. The newly acquired or developed skills may be shown through new experiences or through increased expertise in an established area.
Demonstrate how to initiate and plan a CAS experience.	Students can articulate the stages from conceiving an idea to executing a plan for individual or collaborative CAS experiences. Students may show their knowledge and awareness by building on a previous experience or by launching a new idea or process.
Show commitment to, and perseverance in, CAS experiences.	Students demonstrate regular involvement and active engagement in CAS.

Demonstrate the skills and recognize the benefits of working collaboratively.	Students are able to identify, demonstrate and critically discuss the benefits and challenges of collaboration gained through CAS experiences.
Demonstrate engagement with issues of global significance.	Students are able to identify and demonstrate their understanding of global issues, make responsible decisions and take appropriate action in response to the issue either locally, nationally or internationally.
Recognize and consider the ethics of choices and actions.	Students show awareness of the consequences of choices and actions in planning and carrying out CAS experiences.

IV. Sample projects

- Creativity: A student group plans, designs and creates a mural.
- Activity: Students organize and participate in a sports team including training sessions and matches against other teams.
- Service: Students set up and conduct tutoring for people in need.
- Service and activity: Students plan and participate in the planting and maintenance of a garden with members of the local community.
- Creativity, activity and service: Students rehearse and perform a dance production for a community retirement home.

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