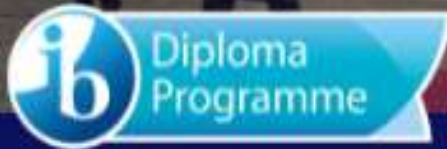




Sheikh Zayed International Academy - Islamabad

أكاديمية الشيخ زايد الدولية - إسلام آباد



**INTERNATIONAL <sup>®</sup>  
BACCALAUREATE**



IB CONTINUUM  
CONTINUUM DE L'IB  
CONTINUO DEL IB

**DIPLOMA**

**PROGRAMME**

**STUDENT HANDBOOK**





# 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.

# INTERNATIONAL BACCALEAREATE

The International Baccalaureate (IB) Diploma Programme is a challenging two-year curriculum, open to any student aged 16 to 19, at schools that have been authorized to implement the programme.

It emphasizes **academic achievement, critical thinking, research skills and community service**. It has been operating world-wide for almost 50 years and is in place in almost 5000 schools in over 151 countries around the world. As the programme has grown, so too has its reputation for excellence; the IB DP is now recognized in almost every country in the world as a one of the pre-eminent preuniversity qualifications.

## WHY CHOOSE THE INTERNATIONAL BACCALAUREATE® DIPLOMA FOR YOUR CHILD?

### **A proven pathway to success**

Universities worldwide hold the IB Diploma in high esteem, with IB students continually being accepted at some of the highest-ranking colleges and universities. As this is an international qualification, it is particularly useful for students who plan to study or work abroad.

### **Promoting independent learning**

The IB Diploma Programme encourages students to become internationally minded and to drive their own self-directed learning. There is a focus on social and emotional development, creating global citizens with universal values.

### **Encouraging global awareness**

Through various elements of the IBDP, such as mastering a foreign language or learning about other cultures and political systems, students naturally become culturally aware, developing their understanding of the world around them.

## INTERNATIONAL MINDEDNESS:

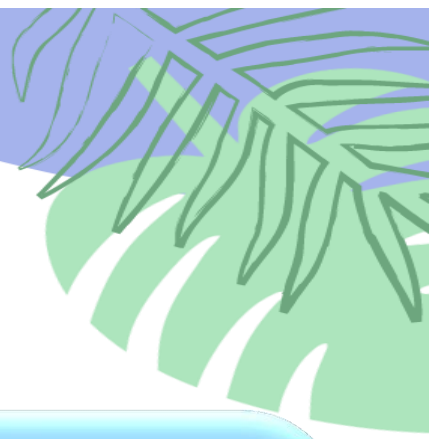
SZIA is committed to fostering international mindedness in our students. International mindedness encompasses global engagement, multilingualism, and intercultural understanding.

Through various initiatives, we actively encourage students to engage with global issues, explore different cultures, and develop a sense of responsibility towards the world. Our curriculum is designed to provide opportunities for students to



learn multiple languages, enabling them to communicate across borders and appreciate diverse perspectives. Interdisciplinary projects and cross-cultural collaborations are integrated into the curriculum, promoting intercultural understanding and empathy. We also organize cultural events, international trips, and are planning exchange programs, offering students firsthand experiences of different cultures and fostering a global mindset. In addition, guest speakers and experts from various fields are invited to share their experiences and insights, broadening students' perspectives. By embedding international mindedness throughout our curriculum and providing a supportive environment, we strive to equip our students with the skills, knowledge, and attitudes necessary to become active global citizens who can positively contribute to our interconnected world.





“Education is the most powerful weapon, which you can use to change the world.”

**Nelson Mandela**

Nelson Mandela

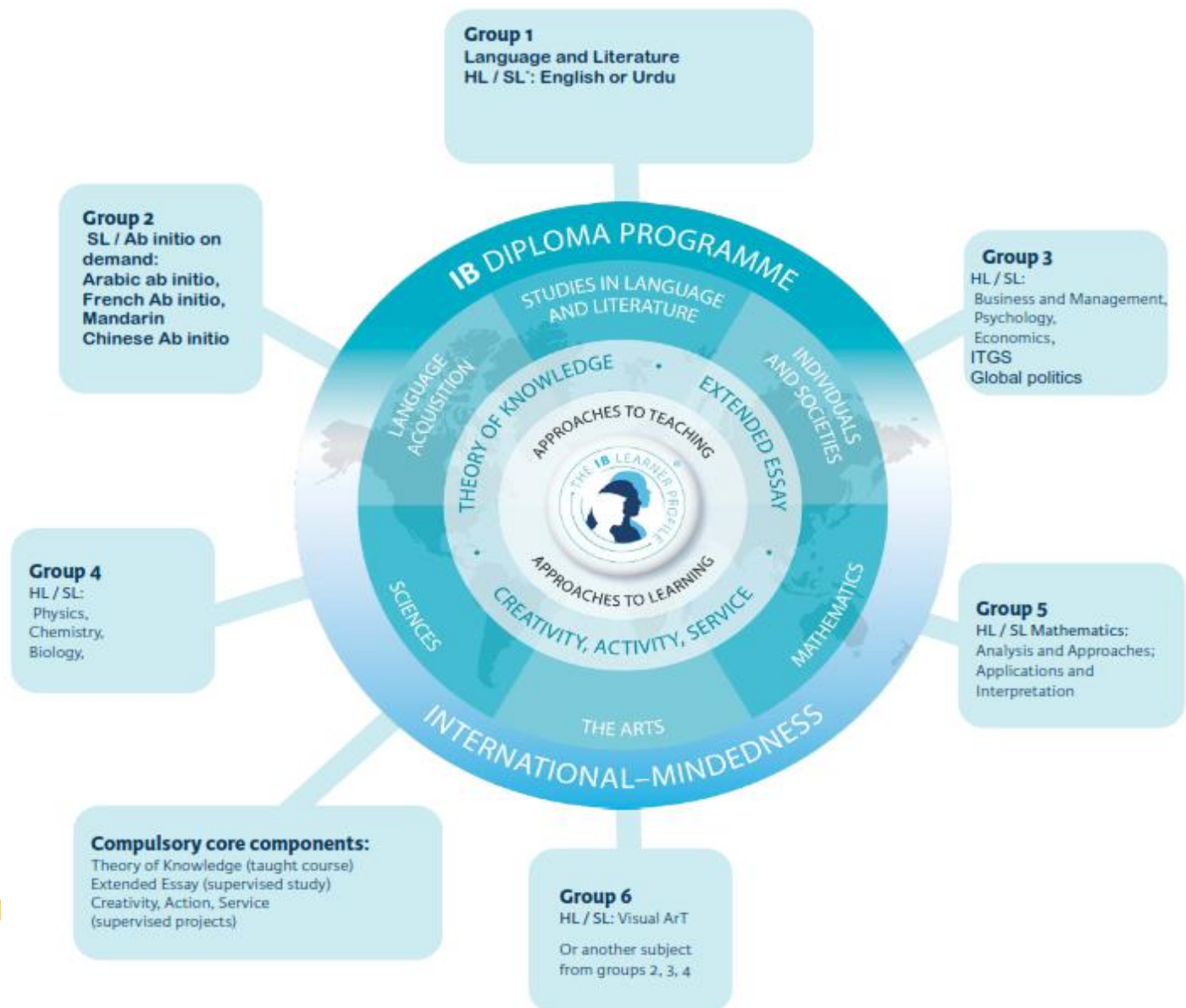
Education is the most powerful weapon, which you can use to change the world.



## DIPLOMA PROGRAMME AT SZIA:

The IB Diploma programme at SZIA offers a comprehensive range of subjects, equipping students with the necessary breadth of knowledge to pursue higher education at the bachelor's degree level. The **DP curriculum** is made up of **six subject groups**. Students study six courses – usually **three** at a **Higher Level (HL)** and **three** at **Standard Level (SL)**. Students must choose one subject from each of groups 1 to 5 – ensuring breadth of experience in languages, individuals & societies, sciences and mathematics.

The **sixth subject** may be an arts subject chosen from group 6, or the student may choose another subject from groups 3 or 4.



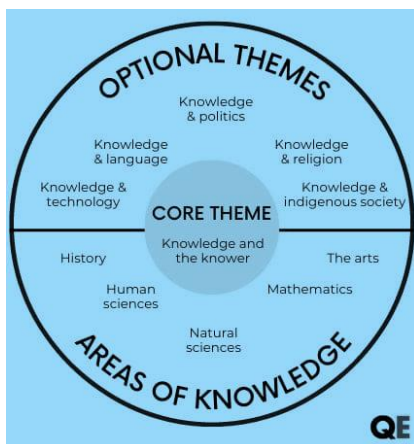
## CORE:

In addition to the **six DP subjects**, all students **must** engage with the **three core subjects** that broaden students' educational experience and challenge them to apply their knowledge and skills through compulsory for diploma students:

**These are compulsory if you wish to receive the full IB Diploma.**

- **Theory of knowledge (TOK),**
- **The extended essay (EE) and**
- **Creativity, Activity, Service (CAS)**

IB Subject Certificate students are only required to complete CAS at ISL London, but you may choose to study Theory of Knowledge as a subject if you wish (and you will receive an IB qualification for this); equally, a subject certificate student may also complete an Extended Essay.



TOK a core element of the Diploma Programme is mandatory for all DP students with a minimum of at least **100 hours** of class time.

At SZIA the TOK class time has been scheduled to **150 hrs.** over a period of two years.

### THEORY OF KNOWLEDGE (TOK):

The Theory of Knowledge or TOK course is designed to develop students' critical thinking and enhance their powers of reasoning and argument. These skills allow students to carry out more effective research, to be more demanding and rigorous in their studies as well as to be intellectually more independent and assertive. In short, TOK aims to help our students become active thinkers rather than passive learners and to develop into discerning adult thinkers.

**TOK assessment includes TOK commentaries, TOK exhibition in the first year and written essays, and reflective journals for semester reports.**

This allows students to demonstrate their understanding and critical thinking skills in evaluating knowledge and its implications.

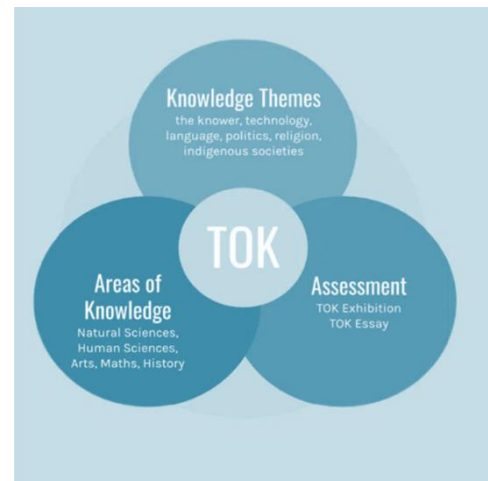
# TOK ASSESSMENT REQUIREMENTS

## INTERNAL ASSESSMENT

- The TOK exhibition is an individual task
  - It represents one third of the overall mark for TOK. It is assessed internally, with a selection of exhibition files from each year group sent off to be moderated by the IB
  - You choose one **IA prompt** to explore, from a list of 35 options. These remain the same for every exam session
  - Three **objects** are also selected for the exhibition
  - The aim of the exhibition is to demonstrate the relationship between the objects and the IA prompt in a 950-word **commentary**
  - There is a **single criterion for marking**, and three characteristics of an excellent essay (convincing, precise, and lucid)
  - The context of the exhibition should be based on the **core theme**, or one of the **optional themes**
  - 8 hours of teaching/planning/writing is required for the exhibition task
  - Ideally, your exhibition should form the basis of a **public event**, to showcase TOK to the rest of the learning community
  - The exhibition is done at the end of the first year of the DP

## EXTERNAL ASSESSMENT

- The essay contributes 67% of the final mark.
- Part 1 Essay on a prescribed title  
One essay on a title chosen from a list of six titles prescribed by the IB for each examination session.
- The prescribed titles will be issued on the OCC in the September prior to submission for May session schools, and in the March prior to submission for November session schools.
- The maximum length for the essay is 1,600 words. All essays are externally assessed by the IB.



# THE EXTENDED ESSAY



## EE ORGANIZATION:

► The Extended Essay is limited to 4,000 words and should include an abstract, an introduction, a development methodology, a conclusion, a bibliography, and any necessary appendices.



## EXTERNAL ASSESSMENT

► The EE is externally examined.

Marks are awarded against a set of published criteria. (both general and subject-specific).

EE is an independent, self-directed piece of research on a topic of special interest to them, which is also related to one of the student's six DP subjects finishing with a 4,000-word paper.

Its purpose is to provide a student with an opportunity to engage in independent research on the communication of ideas and information in a logical and coherent manner, and on the overall presentation of the Extended Essay in compliance with IB guidelines.

## EE SUBJECT CHOICE

Personal interest of the student is an essential consideration while choosing the subject to base the EE essay on. The subject should offer the opportunity for in depth research but should also be limited in scope. It should present the candidate with the opportunity to collect or generate information and/or data for analysis and evaluation.

Extended Essays submitted in Language B (Spanish or French) or Literature A1 (Japanese, Korean, French or English) must be written in that language.

All other essays must be in English.

## ASSESSMENT

The final Extended Essay grade and the final TOK grade are entered into the Diploma points matrix (Table ) to award a possible maximum of three extra points to be added to a student's Diploma score.

Candidates not submitting satisfactory work in either area will fail the Diploma.

## CREATIVITY, ACTIVITY & SERVICE (CAS)

CAS involves students in experiential learning through a range of artistic, sporting, physical and service activities.

It provides opportunities for self-determination and collaboration with others, fostering a sense of accomplishment and enjoyment

from their work.



CAS allows you to apply your IB DP learning to make a difference.

Encourages you to choose and develop your own projects.

Projects can be creative (e.g., learning an instrument, school drama production), active (e.g., sports), or focused on helping others (e.g., charity work, volunteering)

### CREATIVITY:

- ▶ These types of pursuits may include music, art, drama and dance.
- ▶ Students whose timetable does not include art, for example, may find opportunities to develop their creative skills through this part of their CAS programme.

### ACTIVITY:

- ▶ These pursuits aim to keep students fit and physically healthy.
  - ▶ Taking up a new sport or physical activity, coaching or organizing a team are possible ideas.
  - ▶ Going on an adventure - or an activity-based residential may also qualify here.

### SERVICE

- ▶ Service – As the name implies, these activities are about giving something back to the community. Service may take different forms:
  - ▶ participating in environmental clean-up campaigns or
  - ▶ helping less privileged members of the community such as the disabled or the elderly.

## BILINGUAL DIPLOMA:

**For a Bilingual diploma, students** may take both the languages offered in “**Group 1**”

- + **Language and Literature English + Language and Literature Urdu** both would be selected. The student must attain a minimum award of a **Level 3** or higher. In this case the students do not need to select any subject from “**Group 2**” (Language Acquisition) and they would be immediately eligible for the **Bilingual Diploma**.
- + Or in studies in language and literature and an individuals and societies or science subject, completed in a different language.

## IBCC CONVERSION FORMULA FOR GRADE OF INTERNATIONAL BACCALAUREATE PROGRAM:

The conversion formula for grades of International Baccalaureate Diploma Programme (DP) awarded by International Baccalaureate Geneva, Switzerland

<b>Grades</b>	<b>Pak. Equivalent Marks (For External Exams)</b>
7	Above 90 (From Examination Session 2021 Onwards)
6	85
5	75
4	65
3	55
2	Zero
1	Zero

Note: Example for Calculating IBDP Equivalence Attached as appendix A

### HOW DO I KNOW WHETHER THE IB DIPLOMA IS RECOGNISED IN MY COUNTRY?

The IB Diploma holds significant recognition globally, often being granted formal equivalency to national examinations in many countries. For the most up-to-date information regarding your own country's recognition policies, please refer to <http://www.ibo.org/country/>. It is important to note that certain countries may require the IB Diploma to be "notarized" or "legalized" at their consulate in Geneva, Switzerland, where the IB headquarters are located. To facilitate this process, the IB offers a convenient legalization service at a nominal additional cost. Mrs. Saima Sohail (DPC) is available to provide guidance on this matter and will inform students about the specific countries that require diploma legalization each year.

## ASSESSMENT OUTLINE

Subjects offered at SZIA	Level	External Moderation			Written Assignment (%)	Internal Moderation
		P1 (%)	P2 (%)	P3 (%)		
English A: Language and Literature	SL/HL	20	25		25	30
Urdu A: Literature	SL	20	25		25	30
French	ab initio	30	25		20	25
Business and Management	SL	35	40			25
Business and Management	HL	35	40			25
Economics	SL	40	40			20
Economics	HL	30	30	20		20
Information technology in a global society	HL	35	20	25		20
Information technology in a global society	SL	40	30			30
Biology/Chemistry/Physics	SL	20	20	40		20
Biology/Chemistry/Physics	HL	20	36	24		20
Mathematics	SL	40	40			20
Mathematics	HL	30	30	20		20
TOK		Essay upload				Presentation Exhibition
EE		Essay upload				
CAS						Portfolio

Table: 3

## **SUBJECT GRADINGS:**

- Achievement in each subject is rated from 1 to 7.
- HL / SL subjects are treated the same in the contribution to the total diploma score, i.e. a “6” rating in an SL subject is not worth less than a “6” rating in the equivalent HL subject.
- A maximum score of 45 can be achieved in a diploma.
- • 6 subjects x 7 score = 42 points
- • TOK + Extended Essay (See Diploma Points Matrix) = 03 points
- Total = 45 points

## **IB INNER CORE (REVIEWED 2020)**

Core Requirement Completion with grades lead to awarding three (3) Bonus Points IB Diploma candidates must successfully complete all three core requirements TOK, EE and CAS.

- CAS achievement is only monitored, final grade is not awarded.
- EE and TOK receive grades from A to E.
- The award of the three (3) possible bonus points is determined by the intersection of EE grades and TOK grades on a matrix. For example, the attainment of “A” grades in both EE and TOK, would result in the award of the full extra three points. See the Core Requirement Matrix below.

## HOW DO THE PREDICTED GRADES LOOK LIKE

SUBJECT	LEVEL SL \ HL	PREDICTED GRADES
		<b>7</b>
<b>ENGLISH LANGUAGE &amp; LITERATURE</b>	<b>Higher level</b>	<b>7</b>
<b>ARABIC <i>Ab initio</i></b>	<b>Standard level</b>	<b>6</b>
<b>PSYCHOLOGY</b>	<b>Higher level</b>	<b>6</b>
<b>GLOBAL POLITICS</b>	<b>Higher level</b>	<b>6</b>
<b>PHYSICS</b>	<b>Standard level</b>	<b>6</b>
<b>MATHEMATICS</b> Applications and Interpretation	<b>Standard level</b>	<b>6</b>
<b>EXTENDED ESSAY</b> • (Global politics)	<b>28/34</b>	<b>A</b>
<b>THEORY OF KNOWLEDGE</b> Exhibition (33%) Essay (67%)	<b>9/10</b> <b>9/10</b>	<b>B</b>
	<b>Bonus points</b>	<b>3</b>
<b>TOTAL PREDICTED AGGREGATE</b>		<b>40</b>

## GRADE BOUNDARIES

	% AGE	Grade
<b>1.</b>	<b>90+</b>	<b>7</b>
<b>2.</b>	<b>83-89</b>	<b>6</b>
<b>3.</b>	<b>77-82</b>	<b>5</b>
<b>4.</b>	<b>67-76</b>	<b>4</b>
<b>5.</b>	<b>57-66</b>	<b>3</b>
<b>6.</b>	<b>45-56</b>	<b>2</b>

## TOK

$(\text{Presentation score} / 10) + (\text{essay score} / 10 * 2) = \text{overall score out of 30}$

The grade boundaries out of 30

- A – 22 to 30
- B – 16 to 21
- C – 10 to 15
- D – 4 to 9
- E – 0 to 3

### EXTENDED ESSAY:

Marks	Grade
27-34	A
21-26	B
14-20	C
7-13	D
0-6	E

## THEORY OF KNOWLEDGE / EXTENDED ESSAY MATRIX:

	THEORY OF KNOWLEDGE						
	Excellent	Good	Satisfactory	Mediocre	Elementary	Not submitted	
	A	B	C	E	E		
E X T E N D E D E S S A Y	<b>Excellent</b> A	3	3	2	2	Failing condition	N
	<b>Good</b> B	3	2	1	1	Failing condition	N
	<b>Satisfactory</b> C	2	1	1	0	Failing condition	N
	<b>Mediocre</b> E	2	1	0	0	Failing condition	N
	<b>Elementary</b> E	1+ Failing condition	Failing condition	Failing condition	Failing condition	Failing condition	N
	<b>Not submitted</b>	N	N	N	N	N	N

Table: 4

The number represents the student's exam score combined with the other forms of assessment methods (Table: 4)

## AWARD OF THE DIPLOMA

The diploma will be awarded to a student whose total score, including any bonus points, reaches or exceeds 24 points and satisfies the following conditions:

- Higher Level (HL) subjects – The student must obtain a grade 4 or above in each Higher-Level subject. Nevertheless, one grade 3, but not a grade 2, will be acceptable.
- Standard Level (SL) subjects – The student must obtain a grade 4 or above in each Standard Level subject. Nevertheless, one grade 2, but not a grade 1, will be acceptable.

**Note: Students who have completed the requirements for the diploma with only one failing condition, as set out above, but with a total score of at least 28 points, including any bonus points, will be awarded the diploma**

### EXCLUDING CONDITIONS

The diploma cannot be awarded, whatever the total score, to students who have:

1. Not been awarded Grades A to E for both Theory of Knowledge and the Extended Essay, with above an elementary grade in at least one of these
2. Not completed an approved program of Creativity, Action, and Service
3. Received a grade 1 in any Higher or Standard Level subject.
4. Received a total of more than three grade 3's or below.

### IB REGULATIONS FOR THE AWARDING OF THE IB DIPLOMA

The IB Diploma will be awarded provided:

**A.** All assessment components for each of the six subjects and the additional IB diploma requirements must be completed in order to qualify for the award of the IB diploma, except under certain specific conditions as approved by IB

**B.** The IB diploma will be awarded to a candidate whose total score is 24, 25, 26, or 27 points provided all the following requirements have been met.

- All CAS requirements have been met.
- That the grade for both TOK and the Extended Essay is not elementary.
- There is no grade 1 in any subject.
- There is no grade 2 on a higher-level subject.

- There is no more than one grade 2 at standard level
- Overall, there are no more than three grades of 3 or below.
- At least 12 points have been gained on higher level subjects (candidates who register for four higher level subjects must gain at least 16 points at higher level).
- At least 9 points have been gained on standard level subjects (candidates who register for two standard level subjects must gain at least 6 points at standard level).
- The final award committee has not judged the candidate to be guilty of misconduct.

**C.** The IB diploma will be awarded to a candidate whose total score is 28 points or above, provided all the following requirements have been met:

- All CAS requirements have been met.
- That the grade for both TOK and the Extended Essay is not elementary.
- There is no grade 1 in any subject.
- There is no more than one grade 2 on a higher-level subject.
- There are no more than two grades of 2 on standard level subjects.
- Overall, there are no more than three grades of 3 or below.
- At least 11 points have been gained on higher level subjects (candidates who register for four higher level subjects must gain at least 14 points at higher level).
- At least 8 points have been gained on standard level subjects (candidates who register for two standard level subjects must gain at least 5 points at standard level).
- The final award committee has not judged the candidate to be guilty of misconduct.

## COMPARISON BETWEEN IB GRADE POINTS & A-LEVELS GRADES

IB points	IB points UCAS (University placements)	A-Level Grades
45	720	A* A* A* A* A* A*
35	400	A* A* A*
28	348	A A B
24	280	B C

<https://www.catseducation.com/courses/ib.htm>

**FINAL IB EXAMINATIONS ARE ADMINISTERED IN MAY/ NOVEMBER OF EACH YEAR.**

### WHEN ARE RESULTS PUBLISHED?

IB results are published every July. Your IB Diploma is marked on a numbered scale. Each of the six subjects taken is marked out of 7, and there are an extra 3 points available for the Extended Essay and Theory of Knowledge parts of the programme. To gain the Diploma, you need at least 24 points, and the maximum score available for the most academically gifted students is 45 points – equivalent to six A levels at grade A\*.

### SUBMISSION OF WORK ACCORDING TO DEADLINES:

- Notification date for the submission of tasks will be 14 days before the submission date.
- The nature and assessment criteria will also be provided.
- The notification to parents will be via written task-sheet and or via electronic forums.
- Information about the teachers' expectations (a-d) will be provided.
- Students will record due dates in their homework diaries.
- Work must be mailed / handed over to the respective teacher. It is the responsibility of the student to ensure that work has been received by their teacher.
- The consequences for late submission of work, to be determined by the professional judgment of the concerned subject teacher
- Notifications are set on google classroom and late submissions recorded there and then.

- Parents are notified if the assessments are not submitted on the due date through an official WhatsApp msg or an email by the administration.
- In case of consistent late submissions/ no submissions the DP Coordinator and the Head of Section will meet with the students and their parents.
- The tasks are required to be completed to meet the criteria for the course requirements.
- Incomplete work should be submitted on time despite not being finished and the student may request the specific teacher for extra time and the parents will be informed about the new deadline.
- A DP candidate will receive a level 0 if the work has either not been handed in, or the material is entirely irrelevant/incorrect.
- A grade level '4' is the minimum requirement to secure passing grade in external examinations.
- The meeting will be arranged for the parents of students who may be at risk of scoring less than 4 with the teacher /DP Coordinator aimed at implementing measures to improve learning.

### **SUMMATIVE GRADE:**

The school will use subject specific IB criterion to indicate levels of achievement. At the end of each term, students will receive a summative grade, based on the IB 1 (low) – 7 (high) grade scales. Final term grades will be reported as standard IB grades mentioned above.

### **REPORTING:**

#### **WRITTEN REPORTS:**

- Full, written, academic reports are issued for all grades at the end of each term.
- However, students in grade 12, who have external examinations in May and graduate before the end of the school year, will receive their Final school report before graduation or the end of May.

#### **POLICY DISTRIBUTION & REVIEW:**

All SZIA IB policies will be posted on the SZIA website in a downloadable, printable format.

All SZIA IB policies will be reviewed annually during IB Pre-planning workshops.

## CONNECTION TO OTHER POLICIES:

**ACADEMIC HONESTY** – Students will adhere to all requirements of the Academic Honesty Policy while completing assignments, homework, formative assessments, summative assessments, and all IB Diploma requirements including Extended Essay, Theory of Knowledge, and CAS.

**LANGUAGE POLICY** – Student language needs will be considered when creating and implementing assessments.

**SPECIAL EDUCATIONAL NEEDS POLICY** – Assessments will follow all requirements outlined by the SEN Policy of SZIA

**ASSESSMENT CALENDAR** – Due dates for submission for IA's and external coursework



# **Appendix A**

## **IBCC**

### **RECOGNITION**

## EXAMPLE FOR CALCULATING IBDP EQUIVALENCE

	<b>Subjects</b>	<b>Grade</b>	<b>Pak Marks</b>
1.	English	7	95
2.	Mathematics	7	94
3.	Physics	7	95
4.	Chemistry	7	95
5.	Biology	7	94
	<b>TOTAL</b>		473

✚ **C1**

✚ **Total =  $(473 / 500) \times 1100 = 1041/1100$  (HSSC Equivalent Marks)**


	<b>Subjects</b>	<b>Grade</b>	<b>Pak Marks</b>	
1.	English	7	95	
2.	Mathematics	7	94	
3.	Physics	7	95	
4.	Chemistry	7	95	
5.	Biology	7	94	
6.	Theory of Knowledge	B	75	80
7.	Extended Essay	A	85	
	<b>TOTAL</b>		553	

✚ **C2**

✚ **Total =  $(553 / 600) \times 1100 = 1014/1100$  (HSSC Equivalent Marks)**

**Note:** Better marks from C1 or C2 will be awarded to the student.

In this case marks calculated as per C1 will be awarded being better.



**Appendix B**  
**UNIVERSITY**  
**DESTINATIONS**

# Hasnain Farooq

with a Merit Scholarship worth US \$152,000

CONGRATULATIONS on the acceptance from

WARTBURG COLLEGE

**MALIK HASNAIN FAROOQ**  
IBDP2

Sheikh Zayed International Academy - Islamabad  
أكاديمية الشيخ زايد الدولية - إسلام آباد

This certificate features a background image of a man in a black t-shirt standing in front of a building with a steeple. The text is overlaid on a white circular graphic. Logos for 'Eye on Top' and 'IB' are in the top right corner.

with a Merit Scholarship worth US \$112,000

CONGRATULATIONS on the acceptance from

QUINNIPIAC UNIVERSITY

**MALIK HASNAIN FAROOQ**  
IBDP2

Sheikh Zayed International Academy - Islamabad  
أكاديمية الشيخ زايد الدولية - إسلام آباد

This certificate features a background image of a man in a black t-shirt standing in front of a building with a steeple. The text is overlaid on a white circular graphic. Logos for 'Eye on Top' and 'IB' are in the top right corner.

# Malaak Rehman

with a Merit Scholarship worth US \$80,000

CONGRATULATIONS on the acceptance from

FRANKLIN AND MARSHALL COLLEGE

**MALAAK REHMAN**  
IBDP2

Sheikh Zayed International Academy - Islamabad  
أكاديمية الشيخ زايد الدولية - إسلام آباد

This certificate features a background image of a woman in a grey sweater standing in front of a building with a steeple. The text is overlaid on a white circular graphic. Logos for 'Eye on Top' and 'IB' are in the top right corner.

with a Merit Scholarship worth US \$182,000

CONGRATULATIONS on the acceptance from

THE COLLEGE OF WOOSTER

**MALAAK REHMAN**  
IBDP2

Sheikh Zayed International Academy - Islamabad  
أكاديمية الشيخ زايد الدولية - إسلام آباد

This certificate features a background image of a woman in a grey sweater standing in front of a building with a steeple. The text is overlaid on a white circular graphic. Logos for 'Eye on Top' and 'IB' are in the top right corner.

# Mid-Atlantic University Admissions Findings

Institution	# of IB students applied	# of IB students accepted	IB students acceptance rate	General Rate
George Washington University	71	46	64.8%	32.0%
Georgetown University	115	34	29.6%	18.0%
Johns Hopkins University	106	34	32.1%	18.3%
University of Delaware	65	52	80.0%	57%*
University of Maryland–College Park	176	155	88.1%	42%*
University of Virginia	179	117	65.4%	32.3%

## Ammaar Rashid & Aslan Demir



**AMMAAR RASHID**  
IBDP2

Sheikh Zayed International Academy - Islamabad



**IZZETTIN ASLAN DEMIR**  
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## University Admissions Findings – U.S.

Institution	# of students applied	# of students accepted	IB student acceptance rate	General rate
Brown University	218	38	17.4%	8.7%
Columbia University	221	30	13.6%	6.9%
Cornell University	190	60	31.6%	18.0%
Dartmouth College	88	15	17.0%	9.7%
Duke University	187	53	28.3%	12.6%
Harvard University	218	21	9.6%	6.2%
Princeton University	168	29	17.3%	8.4%
Rice University	102	39	38.2%	18.6%
Stanford University	229	35	15.3%	7.1%
University of Pennsylvania	190	47	24.7%	12.3%
University of Texas - Austin	139	102	73.4%	47%*
University of Florida	354	291	82.2%	42%*



# **Appendix C**

**IB SUBJECTS  
PRE-REQUISITES  
FOR  
UNIVERSITY ENTRANCE**



“How to decide?  
What do I  
do well in?  
What do I find  
rewarding?  
What do I  
want to be?”

## WHAT SHOULD I STUDY?

When deciding what to study, it's important to pursue subjects that genuinely interest and bring you joy. Considering that your studies now can shape your future career path, it's beneficial to identify your preferences early on



The IB model offers a broad range of subjects (six in total) compared to other national systems, such as the Cambridge.



This breadth allows you to explore different areas of knowledge. Additionally, the IB Diploma Programme allows for specialization through the selection of Higher-Level subjects, enabling you to delve deeper into specific areas of study that captivate your curiosity and passion.



Ultimately, finding a balance between personal interest and potential career pathways is key in determining what you should study.



## WHICH SUBJECTS FOR WHICH DEGREE?

The following information is to give you guidance only as things change rapidly in entry requirements and can be very different at each University and/or in each country – it is very important before making any firm choices that you have: -

- Spoken with Mrs Saima, the IB Diploma Coordinator
- Spoken with one of the University counselling team – EYA ON IVY.
- Chatted through carefully with your parents.
- Researched thoroughly especially different types of universities and across different countries.

It should be duly acknowledged that the IB Diploma offers a wide range of subject choices, allowing for considerable flexibility. However, it is important to recognize that preserving all options for future career and university pathways may not always be feasible. This becomes particularly challenging when considering the varying requirements of different countries.

Many European universities, for instance, typically have specific prerequisites within the IB Diploma Programme for subjects such as Languages, Humanities/Social Sciences, Mathematics, and Sciences. Interested students should diligently review the details provided on individual university websites and utilize the country-specific links available in the career-oriented well-being lessons we have provided.

Furthermore, there are certain subjects regarded as '**keystone subjects**,' such as traditional Laboratory Sciences, Mathematics, English Literature, Geography, History, and Languages, which may be preferred by certain prestigious institutions like Oxford, Cambridge, and elite universities in the United States, depending on the chosen degree program. The IB Diploma students have an evident advantage in this regard, as the program allows for a well-rounded selection of subjects, including the inclusion of these keystone subjects.

## IB SUBJECTS PRE-REQUISITES FOR UNIVERSITY ENTRANCE

The table below is intended to offer students a general overview of specific entry requirements for the IB Diploma, particularly in relation to Higher Level subjects required to access specific university degree courses. However, please be aware that each university within a country may have its own specific requirements; hence students need to conduct their own additional research.

IF YOUR INTENDED DEGREE COURSE IS NOT LISTED BELOW, MATHS SL AI IS THE PERFECT COURSE TO CONSIDER FOR THE GROUP 5 REQUIREMENT OF YOUR IB DIPLOMA.



## UNIVERSITY SPECIFIC REQUIREMENTS

	Australia	Canada	United Kingdom	USA
<b>Architecture</b>	SL Math's AA/HL Math's AI preferred for pure architecture  Physics / Design Technology  May request Art OR Design Tech portfolio	SL Math's AA/HL Math's AI for pure architecture  Usual to request Art/Design Tech portfolio plus  1 lab science also required	SL Math's AA/HL Math's AI for pure architecture Physics HL Almost all of the time will request Art or Design Tech portfolio	SL Math's AA/HL Math's AI for pure architecture  Physics HL / SL to access Bachelor of Architecture  Art or Design Tech portfolio
<b>Engineering</b>	HL Maths AA HL Physics Minimum SL Chemistry for some courses	HL/SL Maths AA or HL AI SL Physics HL/SL Chemistry	HL Maths AA HL Physics Minimum SL Chemistry for some courses	HL Maths AA recommended Minimum SL Chemistry for some courses
<b>Law</b>	May require English A Lang/Lit	Not available as an undergraduate option	Essay-based subjects: HL History, HL Global politics HL Geography, HL English A Lang/Lit	Not available as an undergraduate option
<b>Medicine</b>	SL Math's AA or HL Math's AI  Require 2 HL Sciences -	Not available as an undergraduate option	SL Math's AA or HL Math's AI  Require 2 HL Sciences -	Not available as an undergraduate option
<b>Commerce or Business</b>	SL Math's AA/HL Math's AI may be required for Commerce  Business & Management not a prerequisite	SL Math's AA/HL Math's AI  No other specific subjects required	SL Math's AA/HL Math's AI may be required for Commerce.  Business & Management not a prerequisite	Any Math's Course accepted.  No specific subjects required
<b>Art &amp; Design Performing Arts / Music</b>	Portfolio / Audition essential  Relevant IB HL subject required	Portfolio / Audition essential  Relevant IB HL subject required	Portfolio / Audition essential  Relevant IB HL subject required	Portfolio / Audition essential  Relevant IB HL subject required
<b>Computing / Gaming</b>	Any Math's course accepted  Comp. Science HL / SL	Apply to Bachelor of Arts degree programme first OR through Game Design route	Any Math's course accepted.  Comp. Science HL / SL	Any Math's course accepted.  Comp. Science HL / SL
<b>Economics</b>	HL Maths AI or SL Maths AA  Economics not essential	HL Maths AI or SL Maths AA  Economics not essential	HL Maths AA may be required for top institutions.  SL Maths AA / HL Maths AI for majority of universities	HL Maths AA may be for top institutions.  SL Maths AA / HL Maths AI for majority of universities  Economics not

		Economics not essential	essential
<i>Psychology</i>	Math's AI Required for most courses  Recommend HL/ SL Psychology although not essential	Math's AI Required for most courses  Recommend HL/ SL Psychology although not essential	No specific IB subjects required
<b>Science</b>	Maths SL AA / HL Maths AI  At least 1 Lab Science at SL	Maths SL AA / HL Maths AI  2 Lab Sciences from Biology, Physics Chemistry	Maths SL AA / HL Maths AI  Recommend at least 1 HL Lab Science
		SL / HL Math's AI HL Biology or HL Chemistry  Recommend HL/ SL Psychology  Maths HL AA/ SL AA or HL Maths AI  1 Lab Science at HL as a minimum	

To find out more about careers which are possible with various degree subjects, visit website:

[http://www.prospects.ac.uk/options\\_with\\_your\\_subject.htm](http://www.prospects.ac.uk/options_with_your_subject.htm)

# 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.

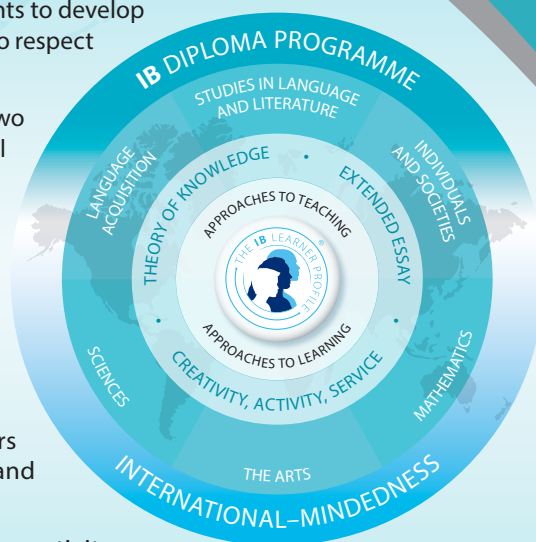
The course is presented as six academic areas enclosing a central core. Students study two modern languages (or a modern language and a classical language), a humanities or social science subject, an experimental science, mathematics and one of the creative arts. Instead of an arts subject, students 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
<b>Total teaching hours</b>	<b>150</b>	<b>240</b>

### 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
<b>External</b>					
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
<b>Internal</b>					
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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# 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.

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.

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%	<b>Paper 1</b> (productive skills) Two written tasks—each from a choice of three  Writing—30 marks	25%
	<b>Paper 2</b> (receptive skills) Separate sections for listening and reading  Listening—25 marks Reading—40 marks	25% 25%
Internal 25%	<b>Individual oral assessment</b>  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
<b>Identities</b>	Explore the nature of the self and how we express who we are.	<ul style="list-style-type: none"> <li>• Personal attributes</li> <li>• Personal relationships</li> <li>• Eating and drinking</li> <li>• Physical well-being</li> </ul>	<ul style="list-style-type: none"> <li>• How do I present myself to others?</li> <li>• How do I express my identity?</li> <li>• How do I achieve a balanced and healthy lifestyle?</li> </ul>
<b>Experiences</b>	Explore and tell the stories of the events, experiences and journeys that shape our lives.	<ul style="list-style-type: none"> <li>• Daily routine</li> <li>• Leisure</li> <li>• Holidays</li> <li>• Festivals and celebrations</li> </ul>	<ul style="list-style-type: none"> <li>• How does travel broaden our horizons?</li> <li>• How would my life be different if I lived in another culture?</li> <li>• What are the challenges of being a teenager?</li> <li>• How are customs and traditions similar or different across cultures?</li> </ul>
<b>Human ingenuity</b>	Explore the ways in which human creativity and innovation affect our world.	<ul style="list-style-type: none"> <li>• Transport</li> <li>• Entertainment</li> <li>• Media</li> <li>• Technology</li> </ul>	<ul style="list-style-type: none"> <li>• How do science and technology affect my life?</li> <li>• How do I use media in my daily life?</li> <li>• What can I learn about a culture through entertainment?</li> </ul>
<b>Social organization</b>	Explore the ways in which groups of people organize themselves, or are organized, through common systems or interests.	<ul style="list-style-type: none"> <li>• Neighbourhood</li> <li>• Education</li> <li>• The workplace</li> <li>• Social issues</li> </ul>	<ul style="list-style-type: none"> <li>• What purpose do rules and regulations have in society?</li> <li>• What is my role in society?</li> <li>• What options do I have in the world of work?</li> </ul>
<b>Sharing the planet</b>	Explore the challenges and opportunities faced by individuals and communities in the modern world.	<ul style="list-style-type: none"> <li>• Climate</li> <li>• Physical geography</li> <li>• The environment</li> <li>• Global issues</li> </ul>	<ul style="list-style-type: none"> <li>• What can I do to help the environment?</li> <li>• How do my surroundings affect the way I live?</li> <li>• What can I do to make the world a better place?</li> </ul>

About the IB: For 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 are able to contribute to creating a better, more peaceful world.

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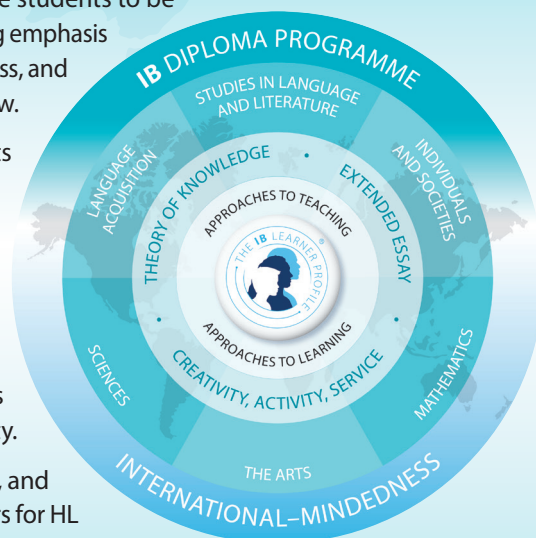
# Individuals and societies: Business management—higher level

First assessments 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.

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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><b>Unit 1: Introduction to business management</b></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>	<b>20</b>
<p><b>Unit 2: Human resource management</b></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>	<b>35</b>
<p><b>Unit 3: Finance and accounts</b></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>	<b>45</b>
<p><b>Unit 4: Marketing</b></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>	<b>35</b>

<b>Unit 5: Operations management</b>	<b>45</b>
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)	
<b>Business management toolkit</b>	<b>35</b>
<b>Research time allocated for the pre-released statement in paper 1</b>	<b>5</b>
<b>Internal assessment</b>	<b>20</b>

### 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		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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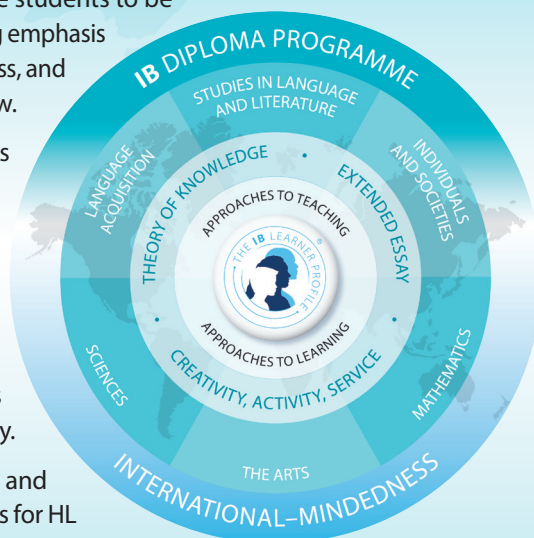
# Individuals and societies: Business management—standard level

First assessments 2024—last assessments 2031

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 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><b>Unit 1: Introduction to business management</b></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>	<b>20</b>
<p><b>Unit 2: Human resource management</b></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>	<b>20</b>
<p><b>Unit 3: Finance and accounts</b></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>	<b>30</b>
<p><b>Unit 4: Marketing</b></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>	<b>30</b>

<b>Unit 5: Operations management</b>	<b>15</b>
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)	
<b>Business management toolkit</b>	<b>10</b>
<b>Research time allocated for the pre-released statement in paper 1</b>	<b>5</b>
<b>Internal assessment</b>	<b>20</b>

### 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

Sciences:

Design technology—Higher level

First assessments 2016

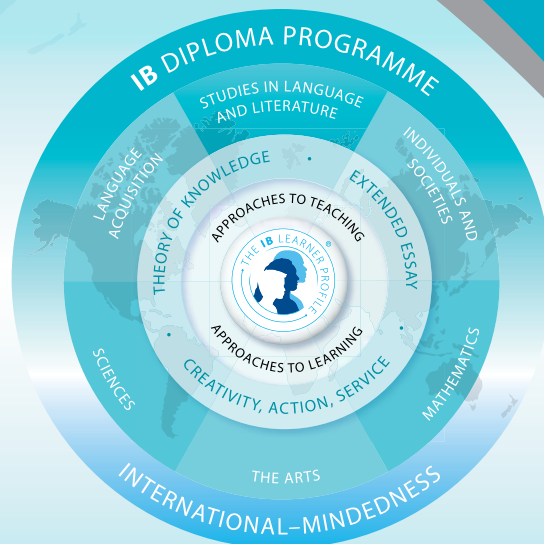
The IB Diploma Programme (DP) is a rigorous, academically challenging and balanced programme of education designed to prepare students aged 16 to 19 for success at university and in life beyond. The DP aims to encourage students to be knowledgeable, inquiring, caring and compassionate, and to develop intercultural understanding, open-mindedness and the attitudes necessary to respect and evaluate a range of viewpoints. Approaches to teaching and learning (ATL) within the DP 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) 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 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 Diploma Programme design technology course aims to develop internationally minded people whose enhanced understanding of design and the technological world can facilitate our shared guardianship of the planet and create a better world.

Inquiry and problem-solving are at the heart of the subject. DP design technology requires the use of the design cycle as a tool, which provides the methodology used to structure the inquiry and analysis of problems, the development of feasible solutions, and the testing and evaluation of the solution. A solution can be defined as a model, prototype, product or system that students have developed independently.

DP design technology achieves a high level of design literacy by enabling students to develop critical-thinking and design skills, which they can apply in a practical context. While designing may take various forms, it will involve the selective application of knowledge within an ethical framework.

Through the overarching theme of the nature of design, the aim of the DP design technology course is to enable students to develop:

1. a sense of curiosity as they acquire the skills necessary for independent and lifelong learning and action through inquiry into the technological world around them
2. an ability to explore concepts, ideas and issues with personal, local and global significance to acquire in-depth knowledge and understanding of design and technology
3. initiative in applying thinking skills critically and creatively to identify and resolve complex social and technological problems through reasoned ethical decision-making

4. an ability to understand and express ideas confidently and creatively using a variety of communication techniques through collaboration with others
5. a propensity to act with integrity and honesty, and take responsibility for their own actions in designing technological solutions to problems
6. an understanding and appreciation of cultures in terms of global technological development, seeking and evaluating a range of perspectives
7. a willingness to approach unfamiliar situations in an informed manner and explore new roles, ideas and strategies to confidently articulate and defend proposals
8. an understanding of the contribution of design and technology to the promotion of intellectual, physical and emotional balance and the achievement of personal and social well-being
9. empathy, compassion and respect for the needs and feelings of others in order to make a positive difference to the lives of others and to the environment
10. skills that enable them to reflect on the impacts of design and technology on society and the environment in order to develop their own learning and enhance solutions to technological problems.

## II. Curriculum model overview

Component	Recommended teaching hours
<b>Core</b>	<b>90</b>
1. Human factors and ergonomics	12
2. Resource management and sustainable production	22
3. Modelling	12
4. Raw material to final product	23
5. Innovation and design	13
6. Classic design	8
<b>Additional higher level (AHL)</b>	<b>54</b>
7. User-centred design (UCD)	12
8. Sustainability	14
9. Innovation and markets	13
10. Commercial production	15
<b>Practical work</b>	<b>96</b>
Design project	60
Group 4 project	10
Teacher-directed activities	26

### 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. The emphasis is on interdisciplinary cooperation and the scientific processes.

## III. Assessment model

The assessment objectives for design technology reflect those parts of the aims that will be formally assessed either internally or externally. Wherever appropriate, the assessment draws upon environmental and technological contexts and identify the social, moral and economic effects of technology. It is the intention of the design technology course that students are able to fulfill the following assessment objectives:

- Demonstrate knowledge and understanding of:
  - facts, concepts, principles and terminology
  - design methodology and technology
  - methods of communicating and presenting technological information.
- Apply and use:
  - facts, concepts, principles and terminology
  - design methodology and technology
  - methods of communicating and presenting technological information.

- Construct, analyse and evaluate:
  - design briefs, problems, specifications and plans
  - methods, techniques and products
  - data, information and technological explanations.
- Demonstrate the appropriate research, experimentation, modelling and personal skills necessary to carry out innovative, insightful, ethical and effective designing.

### Assessment at a glance

Type of assessment	Format of assessment	Time (hours)	Weighting of final grade (%)
External		4	60
Paper 1	Multiple-choice questions on core and HL extension material	1	20
Paper 2	Data based, short-answer, and extended-response questions on core material	1.5	20
Paper 3	Structured questions on HL extension material	1.5	20
Internal		60	40
Design project	Individual design project	60	40

## IV. Sample questions

- At which stage of the product life cycle would user attitudes and behaviours be likely to have greater impact than those of the designer or the manufacturer? (Paper 1)
  - Production
  - Distribution, including packaging
  - Utilization
  - Disposal
- Explain how relative advantage, triability and observability impact on the rate of consumer adoption of flexible screen based smartphones. (Paper 2)
- Explain how the concept of Kaizen helps to improve the efficiency of the production process. (Paper 3)

About the IB: For over 40 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.

For further information on the IB Diploma Programme, and a complete list of DP subject briefs, visit: <http://www.ibo.org/diploma/>.

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](http://www.ibo.org/recognition) or email: [recognition@ibo.org](mailto:recognition@ibo.org).

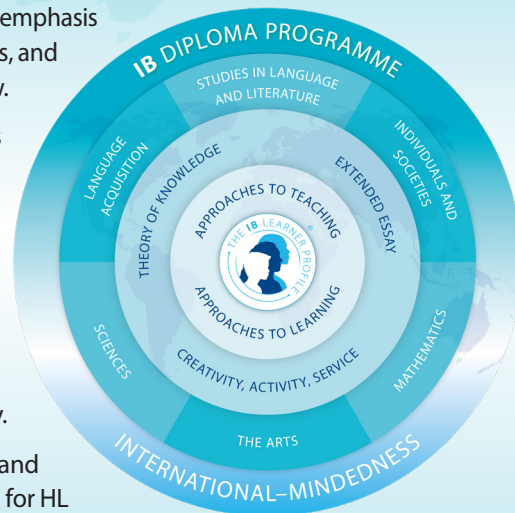
## Individuals and societies: Global politics

First assessment 2026

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

DP global politics is a course for students who want to understand more about how the world they live in works, and what makes it change (or prevents it from changing). The course draws on a variety of disciplinary traditions in the study of politics and international relations, and more broadly in the social sciences and humanities. Students build their knowledge and understanding of the local, national, international, and global dimensions of political activity and processes by critically engaging with contemporary political issues and challenges.

The course integrates concepts, content and contexts through inquiry.

- **Concepts** such as power, sovereignty, legitimacy and interdependence are explored and examined critically throughout the course.
- **Content** informs inquiries through a variety of global politics topics, encompassing political systems and actors, power interactions, frameworks, treaties and conventions, terminology, and analysis models.
- **Contexts** diversify, shape and channel inquiries through contemporary real-world examples and cases.

The flexible syllabus allows educators to build the course around their students' contexts and interests, as well as contemporary events and developments in global politics. Thinking, analysis and research skills are fostered through guided and independent inquiries into political issues and challenges, with a special focus on identifying and engaging with diverse perspectives.

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

- explore and evaluate power in contemporary global politics
- examine how state and non-state actors operate and interact within political systems
- investigate and analyse contemporary political issues and challenges from multiple perspectives
- develop a lifelong commitment to active global citizenship through collaboration and agency.

## 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.

Syllabus component	Teaching hours	
	SL	HL
<b>Core</b> Understanding power and global politics	<b>125</b>	<b>125</b>
<b>Thematic studies</b> <ul style="list-style-type: none"> <li>• Rights and justice</li> <li>• Development and sustainability</li> <li>• Peace and conflict</li> </ul>		
<b>Internal assessment</b> Engagement project	<b>25</b>	<b>35</b>
HL extension: global political challenges	-	<b>80</b>
<b>Total</b>	<b>150</b>	<b>240</b>

## III. Assessment model

By the end of the global politics course, students are expected to achieve the following assessment objectives.

### Knowledge and understanding

Demonstrate knowledge and understanding of:

- power relationships
- political concepts
- relevant source material
- political issues and challenges.

### Application and analysis

- Apply relevant concepts and tools to analyse contemporary political issues and challenges in a variety of contexts.
- Identify and analyse information, claims and perspectives in source material.
- Identify and analyse relevant evidence to formulate, present and sustain an argument.

### Synthesis and evaluation

- Synthesize and evaluate evidence (including source material) about global politics.
- Synthesize and evaluate perspectives and approaches to global politics.
- Examine and synthesize perspectives on political beliefs, positions, and biases.

### Use and application of appropriate skills

- Research and investigate political issues and challenges.
- Communicate analysis of political issues and challenges.
- Reflect on the process and results of research and investigation.

### Assessment at a glance

Type of assessment	Format of assessment	Time (hours)		Weighting of final grade (%)	
		SL	HL	SL	HL
<b>External</b>		<b>2.75</b>	<b>4.25</b>	<b>70</b>	<b>80</b>
Paper 1	Source-based questions that address topics from the global politics core in an integrated way	1.25	1.25	30	20
Paper 2	Extended response questions based on prescribed content from the thematic studies	1.5	1.5	40	30
Paper 3 (HL only)	Stimulus-based questions related to the HL extension syllabus (global political challenges)	-	1.5	-	30
<b>Internal</b>		<b>25</b>	<b>30</b>	<b>30</b>	<b>20</b>
Engagement project	A written report on a political issue explored through engagement and research	25	30	30	20

### IV. Sample questions

- Using Source C (included in the paper) and **one** example you have studied, **explain** the reasons why international cooperation may be problematic for some states.
- **Discuss** the view that development always results in inequalities.
- **To what extent** is addressing structural violence increasingly important to achieving lasting peace?
- With reference to **two** of the cases you have researched, examine the links between multiple global political challenges.
- With reference to **two** cases, evaluate the effectiveness of international governmental organizations for addressing global political challenges.

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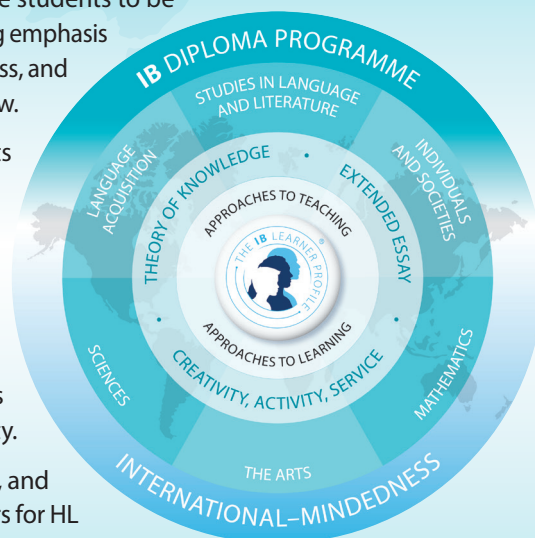
## Individuals and societies: Digital society

First assessment 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.

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		
<b>Introduction</b>		
1.1 What is digital society?		
<b>Concepts</b>	<b>Content</b>	<b>Contexts</b>
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
<b>Inquiry Project (internal assessment)</b>	<b>HL extension: challenges and interventions</b>	
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
<b>External</b>		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
<b>Internal</b>		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: Economics—higher level

First assessments 2022—last assessments 2029

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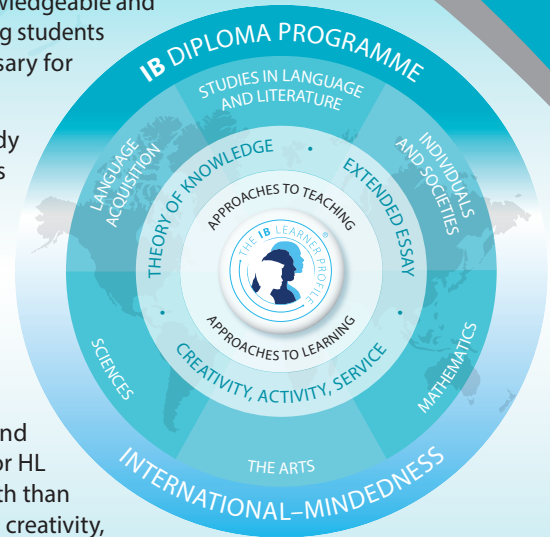
The course is presented as six academic areas enclosing a central core. Students study two modern languages (or a modern language and a classical language), a humanities or social science subject, an experimental science, mathematics and one of the creative arts. Instead of an arts subject, students 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.

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
<b>Unit 1: Introduction to economics</b> 1.1 What is economics? 1.2 How do economists approach the world?	10
<b>Unit 2: Microeconomics</b> 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
<b>Unit 3: Macroeconomics</b> 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

<b>Unit 4: The global economy</b>	<b>65</b>
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	
<b>Internal assessment</b>	<b>20</b>
Portfolio of three commentaries	

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

### 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

### 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.

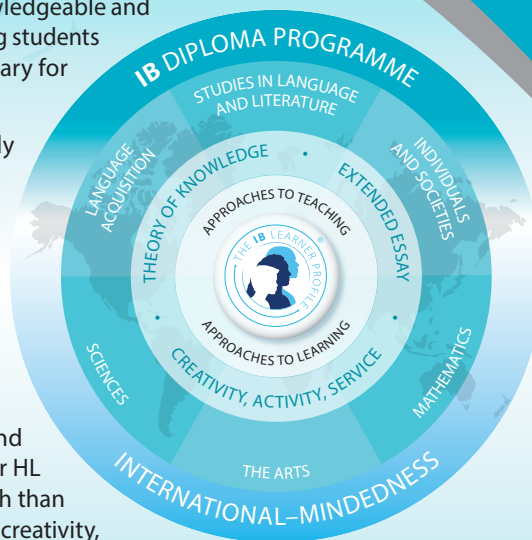
The course is presented as six academic areas enclosing a central core. Students study two modern languages (or a modern language and a classical language), a humanities or social science subject, an experimental science, mathematics and one of the creative arts. Instead of an arts subject, students 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
<b>Unit 1: Introduction to economics</b> 1.1 What is economics? 1.2 How do economists approach the world?	10
<b>Unit 2: Microeconomics</b> 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
<b>Unit 3: Macroeconomics</b> 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

<b>Unit 4: The global economy</b>	<b>45</b>
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	
<b>Internal assessment</b>	<b>20</b>
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: Psychology

First assessment 2019

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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.

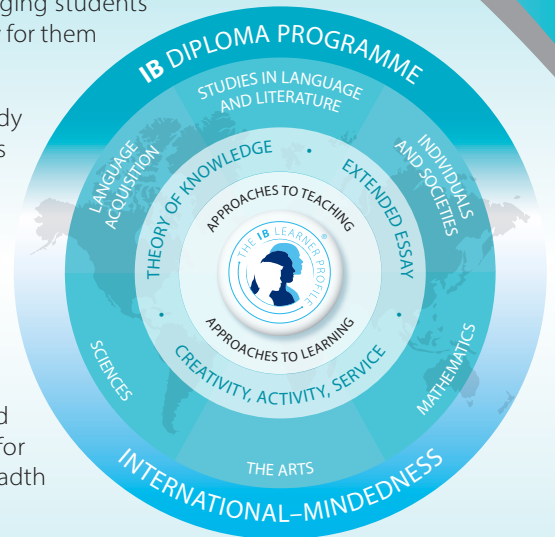
This IB DP subject brief has four key components:

I. Course description and aims

II. Curriculum model overview

III. Assessment model

IV. 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
<b>Core</b> <ul style="list-style-type: none"> <li>Biological approach to understanding behaviour</li> <li>Cognitive approach to understanding behaviour</li> <li>Sociocultural approach to understanding behaviour</li> <li>Approaches to researching behaviour</li> </ul>	90	120
<b>Options</b> <ul style="list-style-type: none"> <li>Abnormal psychology</li> <li>Developmental psychology</li> <li>Health psychology</li> <li>Psychology of human relationships</li> </ul>	20	40
<b>Internal assessment</b> Experimental study	20	20
<b>Total teaching hours</b>	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. <b>HL only:</b> essays will reference additional HL topic.	2	2	50	40
Paper 2	<b>SL:</b> one question from a choice of three on one option. <b>HL:</b> 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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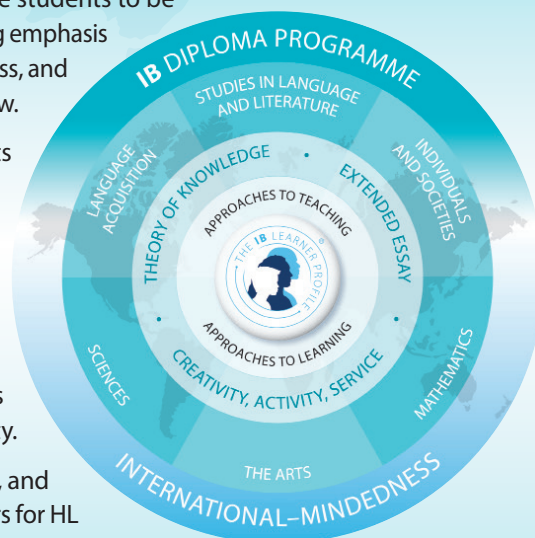
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## I. Course description and aims

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

Syllabus component	Recommended teaching hours	
	SL	HL
<b>Form and function</b> <ul style="list-style-type: none"> <li>• Carbohydrates and lipids</li> <li>• Proteins</li> <li>• Membranes and membrane transport</li> <li>• Organelles and compartmentalization</li> <li>• Cell specialization</li> <li>• Gas exchange</li> <li>• Transport</li> <li>• Muscle and motility *</li> <li>• Adaptation to environment</li> <li>• Ecological niches</li> </ul>	<b>26</b>	<b>39</b>
<b>Interaction and interdependence</b> <ul style="list-style-type: none"> <li>• Enzymes and metabolism</li> <li>• Cell respiration</li> <li>• Photosynthesis</li> <li>• Chemical signalling *</li> <li>• Neural signalling</li> <li>• Integration of body systems</li> <li>• Defence against disease</li> <li>• Populations and communities</li> <li>• Transfer of energy and matter</li> </ul>	<b>31</b>	<b>48</b>
<b>Continuity and change</b> <ul style="list-style-type: none"> <li>• DNA replication</li> <li>• Protein synthesis</li> <li>• Mutations and gene editing</li> <li>• Cell and nuclear division</li> <li>• Gene expression *</li> <li>• Water potential</li> <li>• Reproduction</li> <li>• Inheritance</li> <li>• Homeostasis</li> <li>• Natural selection</li> <li>• Sustainability and change</li> <li>• Climate change</li> </ul>	<b>34</b>	<b>60</b>
<b>Experimental programme</b>	<b>40</b>	<b>60</b>
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	
<b>External</b>		<b>3</b>	<b>4.5</b>	<b>80</b>
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
<b>Internal</b>		<b>10</b>		<b>20</b>
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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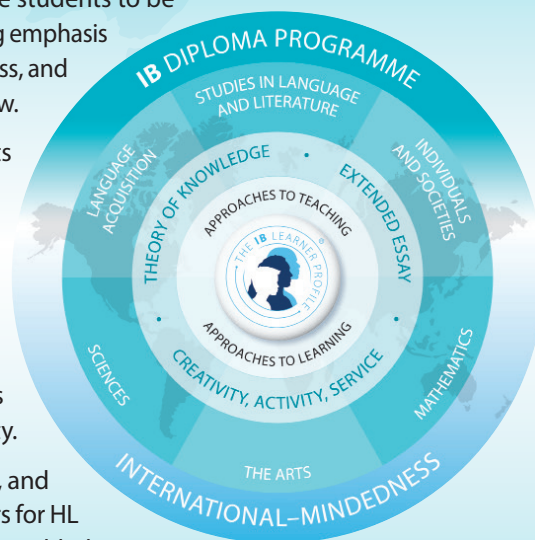
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The course is presented as six academic areas enclosing a central core. Students study two modern languages (or a modern language and a classical language), a humanities or social science subject, an experimental science, mathematics and one of the 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
<b>Syllabus content</b>	<b>110</b>	<b>180</b>
<b>Structure 1. Models of the particulate nature of matter</b> 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
<b>Structure 2. Models of bonding and structure</b> 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
<b>Structure 3. Classification of matter</b> Structure 3.1—The periodic table: Classification of elements Structure 3.2—Functional groups: Classification of organic compounds	16	31
<b>Reactivity 1. What drives chemical reactions?</b> 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
<b>Reactivity 2. How much, how fast and how far?</b> 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

<b>Reactivity 3. What are the mechanisms of chemical change?</b>	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		
<b>Experimental programme</b>	<b>40</b>	<b>60</b>
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
- 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	
<b>External</b>		<b>3</b>	<b>4.5</b>	<b>80</b>
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
<b>Internal</b>		<b>10</b>		<b>20</b>
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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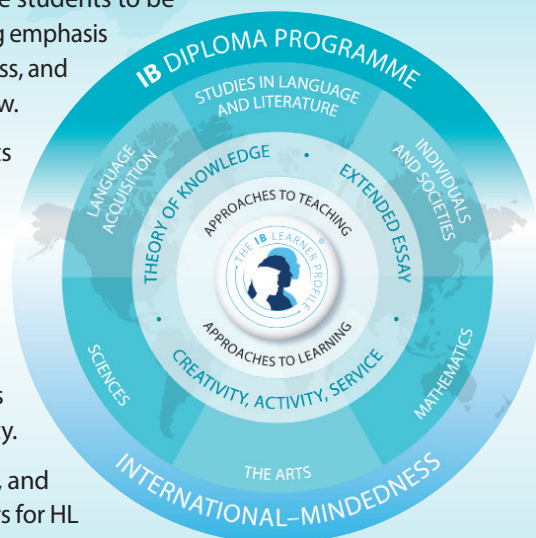
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The course is presented as six academic areas enclosing a central core. Students study two modern languages (or a modern language and a classical language), a humanities or social science subject, an experimental science, mathematics and one of the 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
<b>Syllabus content</b>	<b>110</b>	<b>180</b>
<b>A Space, time and motion</b>	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>B. The particulate nature of matter</b>	24	32
B.1 Thermal energy transfers •		
B.2 Greenhouse effect •		
B.3 Gas laws •		
B.4 Thermodynamics •••		
B.5 Current and circuits •		
<b>C. Wave behaviour</b>	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 ••		
<b>D. Fields</b>	19	38
D.1 Gravitational fields ••		
D.2 Electric and magnetic fields ••		
D.3 Motion in electromagnetic fields •		
D.4 Induction •••		

<b>E. Nuclear and quantum physics</b>	23	39
E.1 Structure of the atom ••		
E.2 Quantum physics •••		
E.3 Radioactive decay ••		
E.4 Fission •		
E.5 Fusion and stars •		
<b>Experimental programme</b>	<b>40</b>	<b>60</b>
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	
<b>External</b>		<b>3</b>	<b>4.5</b>	<b>80</b>
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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

## The arts: Music

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.

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.

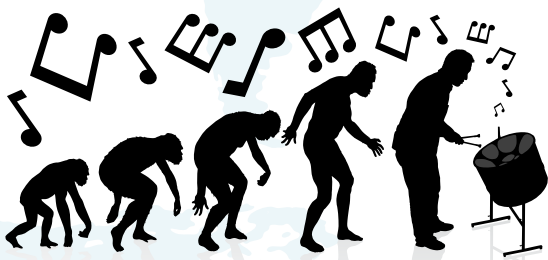
- Music for sociocultural and political expression
- Music for listening and performance,
- Music for dramatic impact, movement and entertainment
- Music technology in the electronic and digital age.



### 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
<b>Exploring music in context</b> 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
<b>Experimenting with music</b> 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
<b>Presenting music</b> 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
<b>The contemporary music maker (HL only)</b> 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
<b>Total teaching hours</b>	<b>150</b>	<b>240</b>

## III. Assessment model

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

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# International Baccalaureate Diploma Programme Subject Brief

## Diploma Programme Core:

### Extended essay, including the world studies option

First assessment 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) within the DP 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. 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*?

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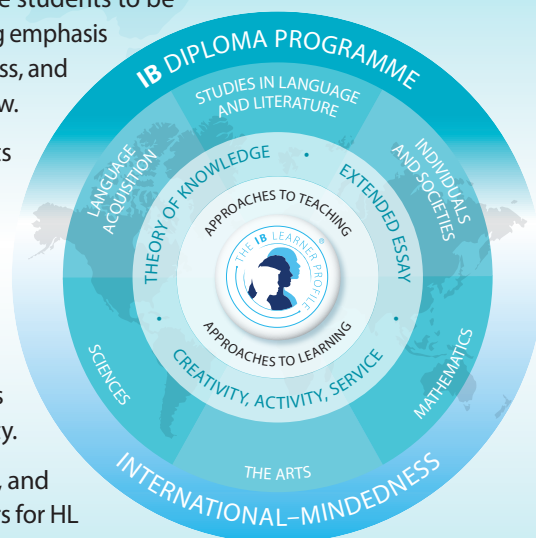
# Diploma Programme core: Theory of knowledge

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><b>Core theme: Knowledge and the knower</b></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><b>Optional themes</b></p> <p>Students are required to study <b>two</b> optional themes from the following five options.</p> <ul style="list-style-type: none"><li>• Knowledge and technology</li><li>• Knowledge and language</li><li>• Knowledge and politics</li><li>• Knowledge and religion</li><li>• Knowledge and indigenous societies</li></ul>	
<p><b>Areas of knowledge</b></p> <p>Students are required to study the following <b>five</b> areas of knowledge.</p> <ul style="list-style-type: none"><li>• History</li><li>• The human sciences</li><li>• The natural sciences</li><li>• The arts</li><li>• Mathematics</li></ul>	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
<b>External</b>	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.			
<b>Internal</b>	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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For more on how the DP prepares students for success at university, visit: [www.ibo.org/en/university-admission](http://www.ibo.org/en/university-admission).

# International Baccalaureate Diploma Programme Subject Brief

## Creativity, activity, service

For students graduating in 2017 and after

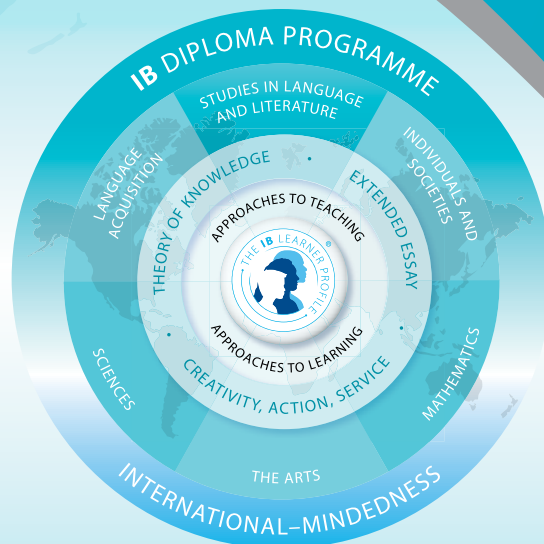


The IB Diploma Programme (DP) is a rigorous, academically challenging and balanced programme of education designed to prepare students aged 16 to 19 for success at university and life beyond. The DP aims to encourage students to be knowledgeable, inquiring, caring and compassionate, and to develop intercultural 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
<b>Identify own strengths and develop areas for growth.</b>	Students are able to see themselves as individuals with various abilities and skills, of which some are more developed than others.
<b>Demonstrate that challenges have been undertaken, developing new skills in the process.</b>	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.
<b>Demonstrate how to initiate and plan a CAS experience.</b>	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.
<b>Show commitment to, and perseverance in, CAS experiences.</b>	Students demonstrate regular involvement and active engagement in CAS.

<b>Demonstrate the skills and recognize the benefits of working collaboratively.</b>	Students are able to identify, demonstrate and critically discuss the benefits and challenges of collaboration gained through CAS experiences.
<b>Demonstrate engagement with issues of global significance.</b>	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.
<b>Recognize and consider the ethics of choices and actions.</b>	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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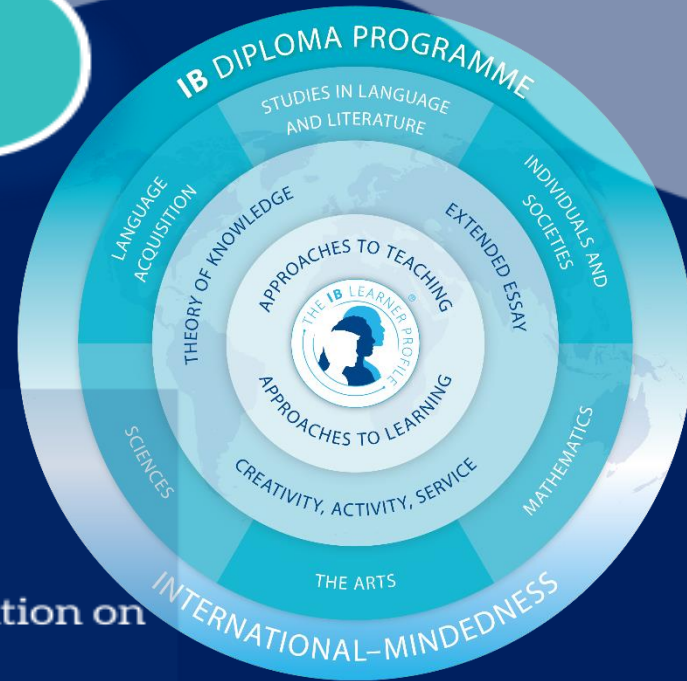
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# SHEIKH ZAYED

# IBDP



## Helpful websites

[www.ibo.org](http://www.ibo.org)

IB organization website includes information on the IB MYP and the IB Diploma, university recognition policies, curriculum materials, and many supporting documents.

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