



IV Liceum Ogólnokształcące
im. Emilii Szanieckiej
School code 003538



The International Baccalaureate®
Diploma Programme
at IV Liceum Ogólnokształcące In Łódź
Candidate's Handbook



IV LICEUM OGÓLNOKSZAŁCĄCE
IM. EMILII SZANIECKIEJ



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Acronyms

CAS	Creativity Activity Service
GDC	Graphic Display Calculator
DP	Diploma Programme
EE	Extended Essay
HL	Higher Level
IA	Internal Assessment
IB	International Baccalaureate
LO	Learning Outcome
“N” grade	No grade/ no submission
SL	Standard Level
TOK	Theory of Knowledge

CERTIFICATE OF AUTHORIZATION

IV Liceum Ogólnokształcące im.Emilii Szczanieckiej
is an authorized IB School No 003538.

The school was granted authorization 12 April
2007 and from September 2007 we have offered
the International Baccalaureate® Diploma
Program. The language of instruction is English.

We certify that
Nous certifions que
Certificamos que

IV Liceum
Ogólnokształcące im.
Emilii Szczanieckiej

is authorized to offer the
Diploma Programme of the
International Baccalaureate
Organization and to present candidates
for examination

est autorisé(e) à offrir le
Programme du diplôme de
l'Organisation du Baccalauréat
International et à présenter des
candidats à l'examen

está autorizado/a a ofrecer el
Programa del Diploma de la
Organización del Bachillerato
Internacional y a presentar
candidatos para el examen

Certificate of Authorization
Certificat d'autorisation
Certificado de autorización

12 April 2007



JEFFREY BEARD

Director general Geneva
Directeur général Genève
Director general Ginebra

Original certificates have two metallic threads embedded in the paper and a "security bonded" watermark. Les certificats authentiques comportent deux fils métalliques insérés dans le papier ainsi qu'un filigrane à la mention "security bonded". Los certificados auténticos llevan dos hilos metálicos embebidos en el papel, y las palabras "security bonded" como filigrana.





- ★ May exam sessions 2009 - 2022
- ★ 626 registered **full-diploma** candidates (first-time and retakes)
- ★ 605 Diplomas awarded
- ★ 573 Extended Essays in 25 subjects
- ★ 565 Theory of Knowledge essays
- ★ Pass rate 96%

AT A GLANCE

The International Baccalaureate Diploma Programme is a two-year programme aimed at students aged 16 – 19, who have completed grade 10 (or an equivalent) of an upper secondary school.

The International Baccalaureate® (IB) Diploma Programme provides an internationally accepted qualification for entry into higher education and is recognized by universities worldwide.

The key attributes of the programme are: **balanced education, multilingualism, international-mindedness and intercultural understanding.**



IV LO's Mission Statement

Our mission is to help our students become inquiring, knowledgeable, open-minded, compassionate and principled global digital citizens, who actively participate in creating a peaceful, more humane and sustainable world through international understanding, respect, and building a culture of ethical behaviour in the digital technology world. In order to achieve that aim we make every effort to equip our students with the necessary tools and skillsets – challenging academic programme, foreign languages and supporting safe and responsible use of technology, delivered in a climate of international mindedness

IB Learner Profile – a set of guidelines for IV LO school community to follow

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. Although the profile below describes IB Learners, we understand it as a profile that applies to the whole school community.

As IV LO school community we strive to be:

INQUIRERS

We develop our natural curiosity. We acquire the skills necessary to conduct inquiry and research and show independence in learning. We actively enjoy learning and this love of learning will be sustained throughout our lives.

KNOWLEDGEABLE

We explore concepts, ideas and issues that have local and global significance. In so doing, we acquire in-depth knowledge and develop understanding across a broad and balanced range of disciplines.

THINKERS

We exercise initiative in applying thinking skills critically and creatively to recognize and approach complex problems, and make reasoned, ethical decisions.

COMMUNICATORS

We understand and express ideas and information confidently and creatively in more than one language and in a variety of modes of communication. We work effectively and willingly in collaboration with others.

PRINCIPLED

We act with integrity and honesty, with a strong sense of fairness, justice and respect for the dignity of the individual, groups and communities. We take responsibility for our own actions and the consequences that accompany them.

OPEN-MINDED

We understand and appreciate our own cultures and personal histories, and are open to the perspectives, values and traditions of other individuals and communities. We are accustomed to seeking and evaluating a range of points of view, and are willing to grow from the experience.

CARING

We show empathy, compassion and respect towards the needs and feelings of others. We have a personal commitment to service, and act to make a positive difference to the lives of others and to the environment.

RISK-TAKERS

We approach unfamiliar situations and uncertainty with courage and forethought, and have the independence of spirit to explore new roles, ideas and strategies. We are brave and articulate in defending our beliefs.

BALANCED

We understand the importance of intellectual, physical and emotional balance to achieve personal well-being for ourselves and others.

REFLECTIVE

We give thoughtful consideration to our own learning and experience. We are able to assess and understand our strengths and limitations in order to support our learning and personal development.

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How the Diploma Programme works?

The International Baccalaureate® Diploma Programme centres on the three components of DP core, which are studied alongside six individual subjects chosen from six subject groups and throughout a student's time in the DP.

Extended Essay

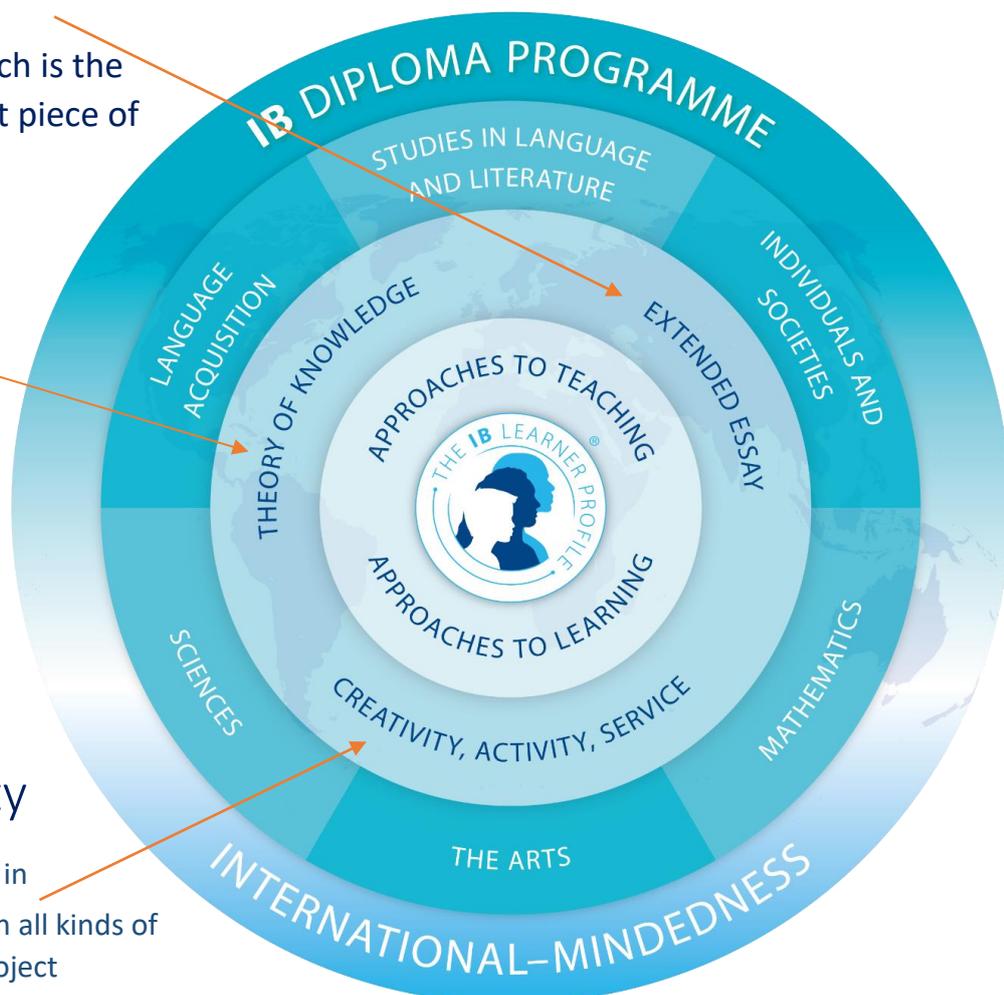
a 4,000-word paper which is the result of an independent piece of research

Theory of Knowledge

a course in which students reflect on the nature of knowledge and on how we know what we claim to know.

Creativity Activity Service

a programme in which students participate in all kinds of activities and complete a project related to those three concepts.



Subjects offered at IV Liceum Ogólnokształcące

Group 1 Studies in Language and Literature

Polish A Literature SL/HL

English A Language and Literature SL/HL

English A Literature SL/HL

Group 2 Language Acquisition

English B HL

Group 3 Individuals and Societies

Economics SL/HL

Geography SL/HL

History SL/HL

Psychology SL/HL

Group 4 Natural Sciences

Biology SL/HL

Chemistry SL/HL

Physics SL/HL

Sports Exercise and Health Science SL

Group 5 Mathematics

Mathematics: Analysis and Approaches SL/HL

Mathematics: Applications and Interpretation SL/HL

Group 6 Foreign Languages other than English B

French, German, Spanish Ab ini SL / B SL/HL



Students are required to choose **one** subject from each of the six academic areas. At IV LO, students may opt to study an additional sciences or languages B/Ab initio course as their Group 6 subject (subject to availability and scheduling constraints).

HL and SL courses differ in scope but are measured according to the same grade descriptors, with students expected to demonstrate a greater body of knowledge, understanding and skills at Higher Level.

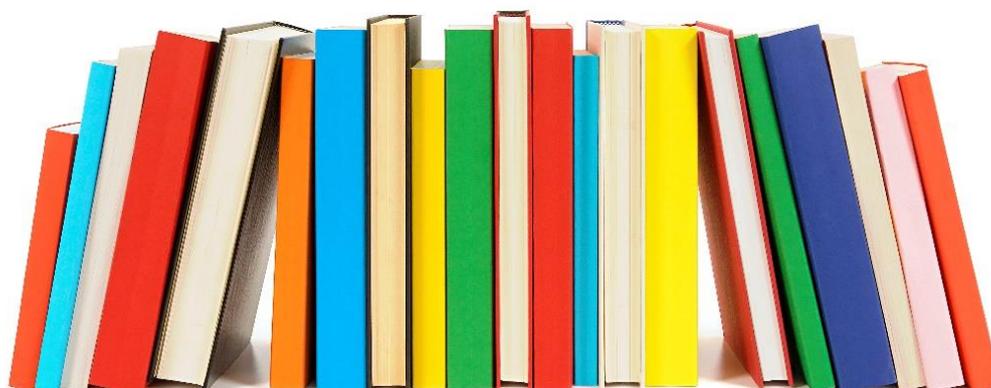
Each student takes at least three (but not more than four) subjects at Higher Level, and the remaining at Standard Level.

Standard Level subjects take up 150 teaching hours. Higher Level comprises 240 teaching hours.

Click here for [Course selection guidance](#) and subject briefs.

Key considerations for choosing subjects

The choice of subjects is determined by interest, ability, university-entrance requirements, etc. It is very important that students make an informed decision about this as changing subjects in the middle of the programme might not be possible. Students should spend time reviewing universities and degree programs of interest and noting their specific entry requirements. **The entry requirements will determine the Higher Level subject choices.**



Assessment and IB examination session

IV LO is a May session school.

Students are registered for the DP core and the subjects and levels they have studied over the two years of the Diploma Programme.

IB session assessment consists of Internal Assessment components and External Assessment components.

Internal Assessment includes:

- Individual oral exams (all language subjects)
- Research papers in Group 3, 4, and 5 subjects
- Theory of Knowledge exhibition

Students work independently on Internal Assessment components in all the subjects they have studied. The work is internally assessed by the school teachers and sent to the external examiners for moderation. IA work constitutes approximately 20%-30% of the final grade in a given subject.

External Assessment includes:

- Extended Essay
- Theory of Knowledge Essay
- Literature HL Essay
- and written examinations taken in May

Written exams are scheduled in the morning and in the afternoon sessions for approximately two weeks. Depending on the choice of subjects, students sit approximately 12 – 15 exams.

The language of examinations is English, except for foreign languages and native languages (Group 1: Literature A, Language and Literature B, Group 2: Language B, Ab Initio).

Performance in each subject is graded on a scale of 1 point (min) to 7 points (max). There are also up to 3 bonus points awarded for TOK/EE.

The results of the examination session are issued in early July. The students can access results via the IB's candidate results website on 6 July.

Diplomas and Certificates arrive at the school at the turn of August and September.

SCALE OF GRADES: 1 – 7

Maximum result: 45 points

- grade 7 x 6 subjects = 42 + 3 bonus points for Theory of Knowledge and Extended Essay

External Assessment:

- examination papers
- Extended Essay, Theory of Knowledge essay, essays in literature (Written Task, Literature Written Assignment)

Internal Assessment:

- individual oral exams
- research papers in Group 3, 4 i 5 subjects
- Theory of Knowledge exhibition

Award of the Diploma

Diploma

of the International Baccalaureate

Diplôme

du Baccalauréat International

Diploma

del Bachillerato Internacional

To qualify for the award of the IB Diploma students (candidates) must meet all the following requirements:

- a. CAS requirements have been met.
- b. The candidate's total points are 24 or more.
- c. There is no "N" awarded for Theory of Knowledge, the Extended Essay or for a contributing subject.
- d. There is no grade E awarded for Theory of Knowledge and/or the Extended Essay.
- e. There is no grade 1 awarded in a subject/level.
- f. There are no more than two grade 2s awarded (HL or SL).
- g. There are no more than three grade 3s or below awarded (HL or SL).
- h. The candidate has gained 12 points or more on HL subjects (for candidates who register for four HL subjects, the three highest grades count).
- i. The candidate has gained 9 points or more on SL subjects (candidates who register for two SL subjects must gain at least 5 points at SL).
- j. The candidate has not received a penalty for academic misconduct from the Final Award Committee.

A maximum of three examination sessions is allowed in which to satisfy the requirements for the award of the IB Diploma. The examination sessions do need to be consecutive.

Source: *Diploma Programme Assessment Procedures 2022: section A2.2 Award of the diploma*

DP SESSIONS RESULTS 2009 – 2022 AT IV LO

Statistics	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	
No of candidates	29	20	33	39	42	39	53	55	58	46	53	57	50	52	626
- No of Retakes	-	-	-	2	4	4	6	2	12	2	9	13	8	2	64
No of Diplomas awarded	29	18	33	37	37	35	47	45	56	38	38	50	46	46	605
Average points	32	32	32	34	34	31	33	30	30	32	29	30	33	34	32
Highest result	43	38	38	42	45	41	43	37	43	41	37	39	43	43	41
Average grade	4,96	5,20	5,15	5,38	5,38	5,0	5,14	4,87	5,0	5,1	4,65	4,73	5,30	5,38	5,1

Class of 2022 IB Diploma Results



Average score

34



Diploma students with a score 40 and above

6



Average grade

5,38



Diploma students with a score 30 and above

31



Highest score

43



Pass rate

88%



Diplomas awarded

46

EXTENDED ESSAY STATISTICS (2009 – 2022)

Our DP students have written 573 extended essays in 25 DP subjects:

SUBJECT	SESSION 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	TOTAL
ENGLISH B	10	9	16	16	4	6	11	13	16	10	12	20	6	17	166
PSYCHOLOGY		2	6	5	6	4	4	3	5	4	7	6	8	6	66
GEOGRAPHY	5	4	1	2	2	4	3	5	4	4	4	4	6	5	53
ENGLISH A		1			8	3	4	5	6	5	6	2	4	6	50
HISTORY	5	1	3	7	7	1	3	9	4		2	2	3	1	48
ECONOMICS		1	3		2	3	9	6	2	8		4	2	7	47
POLISH A	4	1		2	4	6	8	8	1		3	4	3	2	46
MATHEMATICS	2		1	1	1	3	2	1	3	2	1		3		20
FILM	1		1	1	2	1	1	1	1		2		1	2	14
BUSINESS AND MANAGEMENT										3	5	1	1	3	13
BIOLOGY		1	1	1	1	1		2	1	2		1	1	1	13
GLOBAL POLITICS								1	1			2	3	2	9
CHEMISTRY							1		1	1	1		2	1	7
VISUAL ARTS						2	1		3						6
PHILOSOPHY										1			1		2
PHYSICS	2														2
MUSIC					1						1				2
DANCE									1	1					2
LITERATURE AND PERFORMANCE						1									1
GERMAN			1												1
FRENCH								1							1
SPORTS, EXERCISE and HEALTH SCIENCE										1					1
COMPUTER SCIENCE				1											1
THEATRE				1											1
PEACE AND CONFLICT				-			1								1
TOTAL	29	20	33	37	38	35	48	55	49	32	44	46	44	53	573

WHY THE IB DIPLOMA PROGRAMME IS DIFFERENT THAN OTHER CURRICULA

International Baccalaureate® Diploma programme aims to develop inquiring, knowledgeable and caring young people who are motivated to build a better world through intercultural understanding and respect.

The programme

- is developed independently of governments and national systems
- encourages students to think critically and challenge assumptions
- is committed to develop multilingual students
- encourage students to consider both local and global contexts
- incorporates quality practice from research and global community of schools



ALUMNI PLACEMENTS

Our graduates have earned admissions to various prominent universities:

- University of Oxford
- University of Cambridge
- University of St.Andrews
- King's College Londyn
- University College London
- The University of Edinburgh
- Glasgow University
- University of Lancaster
- London College of Fashion
- University of Sheffield
- Kent School of Architecture
- University of Liverpool
- Aberystwyth University
- Maastricht University
- University of Amsterdam
- University of Copenhagen
- The University of Hong Kong
- Loyola Marymount University
- University of Toronto
- University of British Columbia
- National University of Singapore
- Uniwersytet Jagielloński
- Akademia Sztuk Pięknych w Łodzi
- Politechnika Łódzka (IFE)
- Politechnika Warszawska
- Uniwersytet Łódzki
- Szkoła Główna Handlowa w Warszawie
- Uniwersytet Warszawski
- Uniwersytet Adama Mickiewicza (Poznań)
- Uniwersytet Gdański
- PWSFTiT w Łodzi



ADMISSIONS TO THE DIPLOMA PROGRAMME – CONDITIONS FOR ENTRY

Students who graduate from grade two of an upper-secondary school (grade 10 or an equivalent in other educational systems) and wish to progress to the Diploma Programme for the two final years need to go through the admissions process and take mandatory entrance examinations. The passing score for all the components is 50%.

Candidates submit application through the in-school online system (a link to the registration form is posted on the school website in a relevant section referring to the admissions procedures in the IBDP).

The entrance examinations consists of a competence test in English (level B2/C1) and an Interview in English. Other entry conditions can be checked in the table below and in the school's Admissions policy.

CANDIDATES	NECESSARY CONDITIONS	ENGLISH	AVERAGE GRADE	INTERVIEW
IV LO preIB candidates	<ol style="list-style-type: none"> min grade 4 in English min 3 in Polish and Mathematics min 75% school attendance 	Final grade in English – weight 40%	Final grades average at the end of grade 10: Polish, Mathematics, English, foreign language, Geography, History, Biology, Physics, Chemistry - weight 40%	Interview – weight 20%
Non-preIB candidates	<ol style="list-style-type: none"> min grade 5 in English min grade 3 Polish and Mathematics min 75% school attendance 	English competence test result – weight 80%	Final grades average at the end of grade 10: Polish, Mathematics, English, foreign language, Geography, History, Biology, Physics, Chemistry - weight 40%	Interview – weight 20%
Overseas candidates (Polish students coming back to Poland, and foreign students)	<ol style="list-style-type: none"> grade 10 completion certificate (or equivalent) 	English competence test result – weight 80% (requirement for overseas students whose 1 st language is not English)		Interview – weight 20%



IB DIPLOMA PROGRAMME CURRICULUM

Students are required to choose **one** subject from each of the **six academic areas**. There are different courses within each subject group.

At IV LO, students may opt to study **an additional** subject from **Group 2** (Languages B/Ab initio course), or **Group 4** (Natural Sciences) as **Group 6 subject** (subject to availability and scheduling constraints).

HL and **SL** courses differ in scope but are measured according to the same grade descriptors, with students expected to demonstrate a greater body of knowledge, understanding and skills at higher level.

Each student takes at least three (but not more than four) subjects at higher level, and the remaining at standard level.

Standard level subjects take up 150 teaching hours. Higher level comprises 240 teaching hours.

Click here for [Course selection guidance](#) and subject briefs.



Group 1 STUDIES IN LANGUAGE AND LITERATURE

- POLISH A LITERATURE (for native speakers of Polish)
- ENGLISH A LITERATURE (for native speakers of English)
- ENGLISH A LANGUAGE AND LITERATURE (for students whose competence is near-native like)

Language A: literature

Students will focus exclusively on literary texts, adopting a variety of approaches to textual criticism. Students explore the nature of literature, the aesthetic function of literary language and literary textuality, and the relationship between literature and the world.

Language A: language and literature

In this course, students study a wide range of literary and non-literary texts in a variety of media. By examining communicative acts across literary form and textual type alongside appropriate secondary readings, students will investigate the nature of language itself and the ways in which it shapes and is influenced by identity and culture.

Approaches to study in the course are meant to be wide ranging and can include literary theory, sociolinguistics, media studies and critical discourse analysis among others.

Distinction between SL and HL

The model for language A: language and literature is the same at SL and HL but there are significant quantitative and qualitative differences between the levels.

SL students are required to study four literary works and a number of non-literary texts that is equivalent in teaching and learning time, whereas HL students are required to study six literary works and a number of non-literary texts that is equivalent in teaching and learning time.

In paper 1, both SL and HL students are presented with two previously unseen non-literary extracts or texts from different text types, each accompanied by a guiding question. SL students are required to write a guided analysis of one of these, while HL students must write guided analyses of both non-literary extracts or texts.

In addition, HL students will have a fourth assessment component, the higher level (HL) essay, a written coursework task that requires students to explore a line of inquiry in relation to a studied non-literary body of work, or a literary work. The outcome of this exploration is a 1200-1500 word essay in which HL students are expected to demonstrate a deeper understanding of the nature of linguistic or literary study.

The distinction between SL and HL is summarized below

Works read	SL	HL
Works in translation written by authors on the <i>Prescribed reading list</i>	Study of a minimum of one work	Study of a minimum of two works
Works originally written in the language studied, by authors on the <i>Prescribed reading list</i>	Study of a minimum of one work	Study of a minimum of two works
Free choice works	Study of two works freely chosen	Study of two works freely chosen
Total works studied	4	6
External assessment	SL	HL
Paper 1: Guided textual analysis	A guided analysis of a previously unseen non-literary extract or text from a choice of two	Two guided analyses of previously unseen non-literary extracts or texts
HL essay		A 1200-1500 word essay exploring a line of inquiry in connection with a studied body of work or work

Studies in language and literature aims

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

1. engage with a range of texts, in a variety of media and forms, from different periods, styles, and cultures
2. develop skills in listening, speaking, reading, writing, viewing, presenting and performing
3. develop skills in interpretation, analysis and evaluation
4. 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
5. 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
6. develop an understanding of the relationships between studies in language and literature and other disciplines
7. communicate and collaborate in a confident and creative way
8. foster a lifelong interest in and enjoyment of language and literature.

LANGUAGE A ASSESSMENT OUTLINE

SL	HL
External assessment (3 hours) 70%	External assessment (4 hours) 80%
Paper 1 35%	Paper 1 35%

Paper 1

35%

Guided literary analysis (1 hour 15 minutes)

The paper consists of two passages from two different literary forms, each accompanied by a question. Students choose one passage and write an analysis of it. (20 marks)

Paper 2

35%

Comparative essay (1 hour 45 minutes)

The paper consists of four general questions. In response to one question, students write a comparative essay based on two works studied in the course. (30 marks)

Internal assessment

This component consists of an individual oral that is internally assessed by the teacher and externally moderated by the IB at the end of the course.

Individual oral (15 minutes)

Supported by an extract from one work written originally in the language studied and one from a work studied in translation, students will offer a prepared response of 10 minutes, followed by 5 minutes of questions by the teacher, to the following prompt:

Examine the ways in which the global issue of your choice is presented through the content and form of two of the works that you have studied. (40 marks)

Paper 1

35%

Guided literary analysis (2 hours 15 minutes)

The paper consists of two literary passages, from two different literary forms, each accompanied by a question. Students write an analysis of each of the passages. (40 marks)

Paper 2

25%

Comparative essay (1 hour 45 minutes)

The paper consists of four general questions. In response to one question, students write a comparative essay based on two works studied in the course. (30 marks)

Higher level (HL) essay

Students submit an essay on one work studied during the course. (20 marks)
The essay must be 1,200–1,500 words in length.

Internal assessment

This component consists of an individual oral that is internally assessed by the teacher and externally moderated by the IB at the end of the course.

Individual oral (15 minutes)

Supported by an extract from one work written originally in the language studied and one from a work studied in translation, students will offer a prepared response of 10 minutes, followed by 5 minutes of questions by the teacher, to the following prompt:

Examine the ways in which the global issue of your choice is presented through the content and form of two of the works that you have studied. (40 marks)

LANGUAGE A: LANGUAGE AND LITERATURE ASSESSMENT OUTLINE

<p>SL</p> <p>External assessment (3 hours) 70%</p> <p>Paper 1: Guided textual analysis (1 hour 15 minutes) 35%</p> <p>The paper consists of two non-literary passages, from two different text types, each accompanied by a question. Students choose one passage and write an analysis of it. (20 marks)</p> <p>Paper 2: Comparative essay (1 hour 45 minutes) 35%</p> <p>The paper consists of four general questions. In response to one question students write a comparative essay based on two literary works studied in the course. (30 marks)</p> <p>Internal assessment</p> <p>This component consists of an individual oral which is internally assessed by the teacher and externally moderated by the IB at the end of the course.</p> <p>Individual oral (15 minutes)</p> <p>Supported by an extract from one non-literary body of work and one from a literary work, students will offer a prepared response of 10 minutes, followed by 5 minutes of questions by the teacher, to the following prompt:</p> <p>Examine the ways in which the global issue of your choice is presented through the content and form of one of the works and one of the bodies of work that you have studied. (40 marks)</p>	<p>HL</p> <p>External assessment (4 hours) 80%</p> <p>Paper 1: Guided textual analysis (2 hours 15 minutes) 35%</p> <p>The paper consists of two non-literary passages, from two different text types, each accompanied by a question. Students write an analysis of each of the passages. (40 marks)</p> <p>Paper 2: Comparative essay (1 hour 45 minutes) 25%</p> <p>The paper consists of four general questions. In response to one question students write a comparative essay based on two literary works studied in the course. (30 marks)</p> <p>HL essay 20%</p> <p>Students submit an essay on one non-literary body of work, or a literary work studied during the course. (20 marks)</p> <p>The essay must be 1,200-1,500 words in length.</p> <p>Internal assessment: Individual oral (15 minutes)</p> <p>This component consists of an individual oral which is internally assessed by the teacher and externally moderated by the IB at the end of the course.</p> <p>Individual oral (15 minutes)</p> <p>Supported by an extract from both one non-literary body of work and one from a literary work, students will offer a prepared response of 10 minutes, followed by 5 minutes of</p>
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questions by the teacher, to the following prompt:

Examine the ways in which the global issue of your choice is presented through the content and form of one of the works and one of the bodies of work that you have studied. (40 marks)



Group 2 Language Acquisition

- ENGLISH B, GERMAN B, FRENCH B, SPANISH B
- GERMAN AB INI, FRENCH AB INI, SPANISH AB INI

Language acquisition consists of two modern language courses—language ab initio and language B.

Language ab initio is designed for students with **no prior experience of the target language**, or for those students with **very limited previous exposure** (no more than 2 years of instruction).

Language B is designed for students with some experience in the target language; providing students with an appropriate degree of challenge is important for their development.

Language B SL is designed for students with **some previous experience** in the target language who already have the ability to **communicate in the language in familiar contexts**. While in the course, they will further develop this ability.

Language B HL is designed for students with previous experience in the target language who have the ability **to communicate in that language**

in a variety of contexts and for a variety of purposes. As the study of two literary works originally written in the target language is compulsory in language B HL, entering the course with these communication skills would allow the student to begin the study of works of literature originally written in the target language. During the course, students are expected to use higher-order thinking skills in the development of their receptive, productive and interactive skills.

Language acquisition aims

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

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

Syllabus content

Themes

Five prescribed themes are common to the syllabuses of language B and language ab initio; the themes provide relevant contexts for study at all levels of language acquisition in the DP, and opportunities for students to communicate about matters of personal, local or national, and global interest.

The five prescribed themes are:

- **identities:** explore the nature of the self and what it is to be human.
- **experiences:** explore and tell the stories of the events, experiences and journeys that shape our lives.
- **human ingenuity:** explore the ways in which human creativity and innovation affect our world.
- **social organization:** explore the ways in which groups of people organize themselves, or are organized, through common systems or interests.
- **sharing the planet:** Explore the challenges and opportunities faced by individuals and communities in the modern world.

Students expand the range of their communication skills by understanding and producing a wide variety of oral and written texts for audiences, contexts and purposes associated with academic and personal interests.

For the development of receptive skills, language B students must study authentic texts that explore the culture(s) of the target language. In addition, **the study of two literary works is required at HL.**

LANGUAGE B ASSESSMENT OUTLINE

SL	HL
<p>External assessment (3 hours) 75%</p> <p>Paper 1 (1 hour 15 minutes) 25%</p> <p>Productive skills—writing (30 marks) One writing task of 250–400 words from a choice of three, each from a different theme, choosing a text type from among those listed in the examination instructions.</p> <p>Paper 2 (1 hour 45 minutes) 50%</p> <p>Receptive skills—separate sections for listening and reading (65 marks)</p> <p>Listening comprehension (45 minutes) (25 marks) 25%</p> <p>Reading comprehension (1 hour) (40 marks) 25%</p> <p>Comprehension exercises on three audio passages and three written texts, drawn from all five themes.</p>	<p>External assessment (3h30) 75%</p> <p>Paper 1 (1 hour 30 minutes) 25%</p> <p>Productive skills—writing (30 marks) One writing task of 450–600 words from a choice of three, each from a different theme, choosing a text type from among those listed in the examination instructions.</p> <p>Paper 2 (2 hours) 50%</p> <p>Receptive skills—separate sections for listening and reading (65 marks)</p> <p>Listening comprehension (1 hour) (25 marks) 25%</p> <p>Reading comprehension (1 hour) (40 marks) 25%</p> <p>Comprehension exercises on three audio passages and three written texts, drawn from all five themes.</p>
<p>Internal assessment 25%</p>	<p>Internal assessment 25%</p>
<p>Individual oral assessment</p> <p>This component is internally assessed by the teacher and externally moderated by the IB at the end of the course. A conversation with the teacher, based on a visual stimulus, followed by discussion based on an additional theme. (30 marks)</p>	<p>Individual oral assessment</p> <p>This component is internally assessed by the teacher and externally moderated by the IB at the end of the course. A conversation with the teacher, based on an extract from one of the literary works studied in class, followed by discussion based on one or more of the themes from the syllabus. (30 marks)</p>

LANGUAGE AB INITIO ASSESSMENT OUTLINE

SL

External assessment (2 hours 45 minutes) 75%

Paper 1 (1 hour) 25%

Productive skills—writing (30 marks)

Two written tasks of 70–150 words each from a choice of three tasks, choosing a text type for each task from among those listed in the examination instructions.

Paper 2 (1 hour 45 minutes) 50%

Receptive skills—separate sections for listening and reading (65 marks)

Listening comprehension (45 minutes) (25 marks) 25%

Comprehension exercises on three audio passages drawn from all five themes.

Reading comprehension (1 hour) (40 marks) 25%

Comprehension exercises on three written texts, drawn from all five themes.

Internal assessment

Individual oral assessment

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

A conversation with the teacher, based on a visual stimulus and at least one additional course theme. (30 marks)

Source: *Language B guide (first assessment 2020)*

Language Ab Initio guide (first assessment 2020)



Group 3 Individuals and Societies

- ECONOMICS
- GEOGRAPHY
- HISTORY
- PSYCHOLOGY

Individuals and societies aims

The aims of all subjects in the individuals and societies subject group are to:

1. encourage the systematic and critical study of: human experience and behaviour; physical, economic and social environments; the history and development of social and cultural institutions
2. develop in the student the capacity to identify, to analyse critically and to evaluate theories, concepts and arguments about the nature and activities of the individual and society
3. enable the student to collect, describe and analyse data used in studies of society, to test hypotheses and interpret complex data and source material

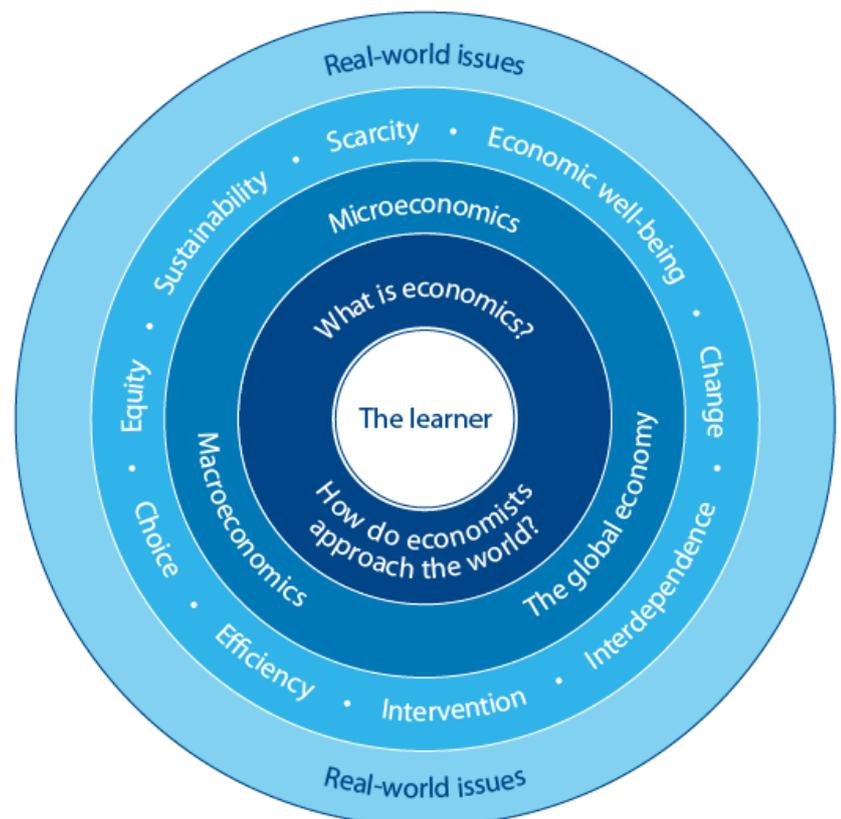
4. promote the appreciation of the way in which learning is relevant to both the culture in which the student lives, and the culture of other societies
5. develop an awareness in the student that human attitudes and opinions are widely diverse and that a study of society requires an appreciation of such diversity
6. enable the student to recognize that the content and methodologies of the subjects in the individuals and societies group are contestable and that their study requires the toleration of uncertainty.

ECONOMICS

Nature of the subject

Economics 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**. While the world's population has unlimited needs and wants, there are limited resources to satisfy these needs and wants. As a result of this scarcity, **choices** have to be made.



The economics course, at both SL and HL, uses economic theories 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)
- at an international level where countries are becoming increasingly interdependent through international trade and the movement of labour and capital (the global economy).

The choices made by economic agents (consumers, producers and governments) generate positive and negative outcomes and these outcomes affect the relative **well-being** of individuals and societies. As a social science, economics examines these choices through the use of models and theories.

The Diploma Programme (DP) economics course allows students to explore these **models** and **theories**, and **apply** them, using **empirical data**, through the examination of the following **six real-world issues** which are posed as economic questions:

- How do consumers and producers make choices in trying to meet their economic objectives?
- When are markets unable to satisfy important economic objectives—and does government intervention help?
- Why does economic activity vary over time and why does this matter?
- How do governments manage their economy and how effective are their policies?
- Who are the winners and losers of the integration of the world's economies?
- Why is economic development uneven?

Economic theory suggests that the material well-being of societies is related to the quantity of goods and services that are available to that society. As a result, economic growth and increased **efficiency** have become prominent goals. However, there are two important global economic issues related to these goals and the choices made by economic agents. These are the ways in which economic activity impacts the environment, and the challenges facing the world in terms of fair access to resources, goods and services. When exploring these significant global issues, **sustainability** and **equity** become key concepts for DP economics students to understand.

In all areas of economic activity, the economic agents can be divided up into the private sector (consumers and producers) and the public sector (governments). To different extents and with different outcomes, the public sector in any economy assumes some responsibility for monitoring and regulating the behaviour of the private sector. This government **intervention** is a significant concept that appears throughout the course and students are expected to critically evaluate the balance between the market forces of the private sector and intervention by governments.

Given the rapidly changing world, economic activity and its outcomes are constantly in flux. Therefore, students are encouraged, throughout the course, to research current real-world issues. Through their own inquiry, it is expected that 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.

Economics - Distinction between SL and HL

The HL course in economics differs from the SL course in economics in terms of the:

- recommended hours devoted to teaching (240 hours for HL compared to 150 hours for SL)
- extra depth and breadth required (extension material for HL only)
- nature of the examination questions. Both SL and HL students develop quantitative skills, but HL students will need to further develop these as appropriate, in **analysing** and **evaluating** economic relationships in order to provide informed policy advice. These skills are specifically assessed in HL paper 3.

Syllabus outline

Unit 1: Introduction to economics

Unit 2: Microeconomics

Unit 3: Macroeconomics

Unit 4: The global economy

ECONOMICS ASSESSMENT OUTLINE

<p>SL</p> <p>External assessment (3 hrs) 70%</p> <p>Paper 1 (1 hour and 15 minutes) 30%</p> <p>An extended response paper (25 marks) Syllabus content (excluding HL extension material) Students answer one question from a choice of three. (25 marks)</p> <p>Paper 2(1 hour and 45 minutes) 40%</p> <p>A data response paper (40 marks) Syllabus content (excluding HL extension material). Includes some quantitative questions.</p> <p>Students answer one question from a choice of two. (40 marks)</p> <p>Internal assessment(20 teaching hours) 30%</p> <p>This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.</p> <p>Students produce a portfolio of three commentaries, based on different units of the syllabus (excluding the introductory unit) and on published extracts from the news media. Each of the three commentaries should use a different key concept as a lens through which to analyse the published extracts. Maximum 800 words for each commentary (45 marks)</p>	<p>HL</p> <p>External assessment(4 h 45 min) 80%</p> <p>Paper 1(1 hour and 15 minutes) 20%</p> <p>An extended response paper (25 marks) Syllabus content including HL extension material. Students answer one question from a choice of three. (25 marks)</p> <p>Paper 2 (1 hour and 45 minutes) 30%</p> <p>A data response paper (40 marks) Syllabus content including HL extension material. Includes some quantitative questions.</p> <p>Students answer one question from a choice of two. (40 marks)</p> <p>Paper 3 (1 hour and 45 minutes) 30%</p> <p>A policy paper (60 marks) Syllabus content including HL extension material. Includes both quantitative and qualitative questions. Students answer two compulsory questions. (30 marks per question)</p> <p>Internal assessment (20 teaching hours) 20%</p> <p>This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.</p> <p>Students produce a portfolio of three commentaries, based on different units of the syllabus (excluding the introductory unit) and on published extracts from the news media. Each of the three commentaries should use a different key concept as a lens through which to analyse the published extracts. Maximum 800 words for each commentary (45 marks)</p>
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Source: *Economics guide (first assessment 2022)*



GEOGRAPHY

“Geography is the only subject that has given me the skills to interpret and understand reality in a way I could not imagine before and that will remain for life.”

A student at the British School of Rio de Janeiro (2013)

Nature of the subject

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

Within individuals and societies subjects, geography is distinctive in its spatial dimension and occupies a middle ground between social or

human sciences and natural sciences. The Diploma Programme geography course integrates physical, environmental and human geography, and ensures that students acquire elements of both socio-economic and scientific methodologies. Geography takes advantage of its position to examine relevant concepts and ideas from a wide variety of disciplines. This helps students develop life skills and have an appreciation of, and a respect for, alternative approaches, viewpoints and ideas.

Geography - Distinction between SL and HL

Students at SL and HL in geography are presented with a syllabus that has optional geographic themes and a common SL and HL core. HL students also study the HL core extension. The syllabus requires the development of certain skills, attributes and knowledge as described in the assessment objectives, which are externally assessed. Although the skills and activity of studying geography are common to both SL and HL students, HL students are required to acquire a further body of knowledge, to demonstrate critical evaluation and to further synthesize the concepts in the HL extension.

In summary:

- SL students study two optional themes; HL students study three optional themes, providing further breadth.
- Both SL and HL students study the core geographic perspectives—global change.
- HL students study the HL extension geographic perspectives—global interactions, and further examine, evaluate and synthesize the prescribed concepts, which by their nature are complex, contestable, interlinked and require holistic treatment. This provides further depth at HL.

- Both SL and HL students complete a fieldwork study for the internal assessment.

Syllabus Outline

Part 1

Geographic themes – seven options

Two options are studied at SL, and three at HL

1. Freshwater–drainage basins
2. Oceans and coastal margins
3. Extreme environments
4. Geophysical hazards
5. Leisure, tourism and sport
6. Food and health
7. Urban environments

Part 2 SL and HL core

Geographic perspectives–global change

- Population distribution–changing population
- Global climate–vulnerability and resilience
- Global resource consumption and security

Part 2 HL core extension

HL only

Geographic perspectives–global interactions

- Power, places and networks
- Human development and diversity
- Global risks and resilience

Internal assessment SL and HL Fieldwork

Fieldwork, leading to one written report based on a fieldwork question, information collection and analysis with evaluation

GEOGRAPHY ASSESSMENT OUTLINE

SL	HL
External assessment (2h45 min) 75%	External assessment (4h30 min) 80%
Paper 1 (1 hour 30 minutes) 35% Geographic themes—two options (40 marks)	Paper 1 (2 hours 15 minutes) 35% Geographic themes—three options (60 marks)
Paper 2 (1 hour 15 minutes) 40% Geographic perspectives—global change (50 marks)	Paper 2 (1 hour 15 minutes) 25% Geographic perspectives—global change (50 marks)
	Paper 3 (1 hour) 20% Geographic perspectives—global interactions (28 marks)
Internal assessment (20 hours) 25% Fieldwork (20 hours) Written report (25 marks) This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.	Internal assessment (20 hours) 20% Fieldwork (20 hours) Written report (25 marks) This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.

Source: *Geography Guide (first assessment 2019)*



HISTORY

History is a dynamic, contested, evidence-based discipline that involves an exciting engagement with the past. It is a rigorous intellectual discipline, focused around key historical concepts such as change, causation and significance.

History is an exploratory subject that fosters a sense of inquiry. It is also an **interpretive discipline**, allowing opportunity for engagement with **multiple perspectives** and **a plurality of opinions**. Studying history develops an understanding of the past, which leads to a deeper understanding of the nature of humans and of the world today.

The IB Diploma Programme (DP) history course is a **world history course** based on a **comparative and multiperspective approach to history**. It involves the study of a variety of types of history, including political, economic, social and cultural, and provides a balance of structure and flexibility. The course emphasizes the importance of encouraging students to think historically and to develop historical skills as well as gaining factual knowledge. It puts a premium on developing the skills of critical thinking, and on developing an understanding of multiple interpretations of history. In this way, the course involves a challenging and demanding critical exploration of the past.

There are six key concepts that have particular prominence throughout the DP history course: **Change, Perspectives, Continuity, Significance, Causation, Consequences.**

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

	SL	HL
Syllabus	<ul style="list-style-type: none"> • The study of one prescribed subject from a choice of five • The study of two world history topics from a choice of twelve • A historical investigation 	<ul style="list-style-type: none"> • The study of one prescribed subject from a choice of five • The study of two world history topics from a choice of twelve • the study of three sections from one HL regional option • A historical investigation



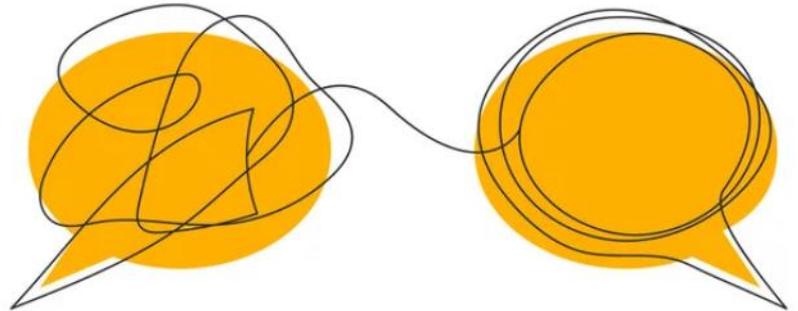
HISTORY ASSESSMENT OUTLINE

SL	HL
<p>External assessment (2 h30m) 75%</p> <p>Paper 1 (1 hour) 30%</p> <p>Source-based paper based on the five prescribed subjects. Choose one prescribed subject from a choice of five. Answer four structured questions. (24 marks)</p>	<p>External assessment (5 hours) 80%</p> <p>Paper 1 (1 hour) 20%</p> <p>Source-based paper based on the five prescribed subjects. Choose one prescribed subject from a choice of five. Answer four structured questions. (24 marks)</p>
<p>Paper 2 (1 hour 30 minutes) 45%</p> <p>Essay paper based on the 12 world history topics. Answer two essay questions on two different topics. (30 marks)</p>	<p>Paper 2 (1 hour 30 minutes) 25%</p> <p>Essay paper based on the 12 world history topics. Answer two essay questions on two different topics. (30 marks)</p>
<p>Internal assessment (20 hours) 25%</p> <p>Historical investigation</p> <p>This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.</p> <p>Students are required to complete a historical investigation into a topic of their choice. (25 marks)</p>	<p>Paper 3 (2 hours 30 minutes) 35%</p> <p>Separate papers for each of the four regional options. For the selected region, answer three essay questions. (45 marks)</p>
<p>Internal assessment (20 hours) 20 %</p> <p>Historical investigation</p> <p>This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.</p> <p>Students are required to complete a historical investigation into a topic of their choice. (25 marks)</p>	<p>Internal assessment (20 hours) 20 %</p> <p>Historical investigation</p> <p>This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.</p> <p>Students are required to complete a historical investigation into a topic of their choice. (25 marks)</p>

Source: *History guide First examinations 2020*

Psychology

Psychology is the rigorous and systematic study of mental processes and behaviour. It is a complex subject which draws on concepts, methods and understandings from a number of different



disciplines. There is no single approach that would describe or explain mental processes and behaviour on its own as human beings are complex animals, with highly developed frontal lobes, cognitive abilities, involved social structures and cultures. The study of behaviour and mental processes requires a multidisciplinary approach and the use of a variety of research techniques whilst recognising that behaviour is not a static phenomenon, it is adaptive, and as the world, societies and challenges facing societies change, so does behaviour.

At the core of the DP psychology course is an introduction to **three different approaches to understanding behaviour:**

- biological approach
- cognitive approach
- sociocultural approach

The knowledge, concepts, theories and research that have developed the understanding in these fields will be studied and critically evaluated to answer some of the questions being asked by psychologists today. Furthermore, the interaction of these approaches to studying psychology will form 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 can be best understood through **the options**. There are **four options** in the course. They focus on areas of **applied psychology**:

- abnormal psychology
- developmental psychology
- health psychology
- psychology of human relationships

The options provide an opportunity to take what is learned from the study of the approaches to psychology and put it into the context of specific lines of inquiry, broaden students' experience of the discipline and develop the students' critical inquiry skills.

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.

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

Psychology studies human beings and as such it is paramount that the **ethical implications** in any line of investigation, and at all points in the course, are fully explored and understood to ensure that **ethical guidelines** are followed at all times.

Internal assessment: Experimental study

Psychology - Distinction between SL and HL

There are three main distinctions between this course at SL and at HL.

1. The following extensions to the core approaches are studied at HL only.
 - The role of animal research in understanding human behaviour
 - Cognitive processing in a technological (digital/modern) world
 - The influence of globalization on individual behaviour

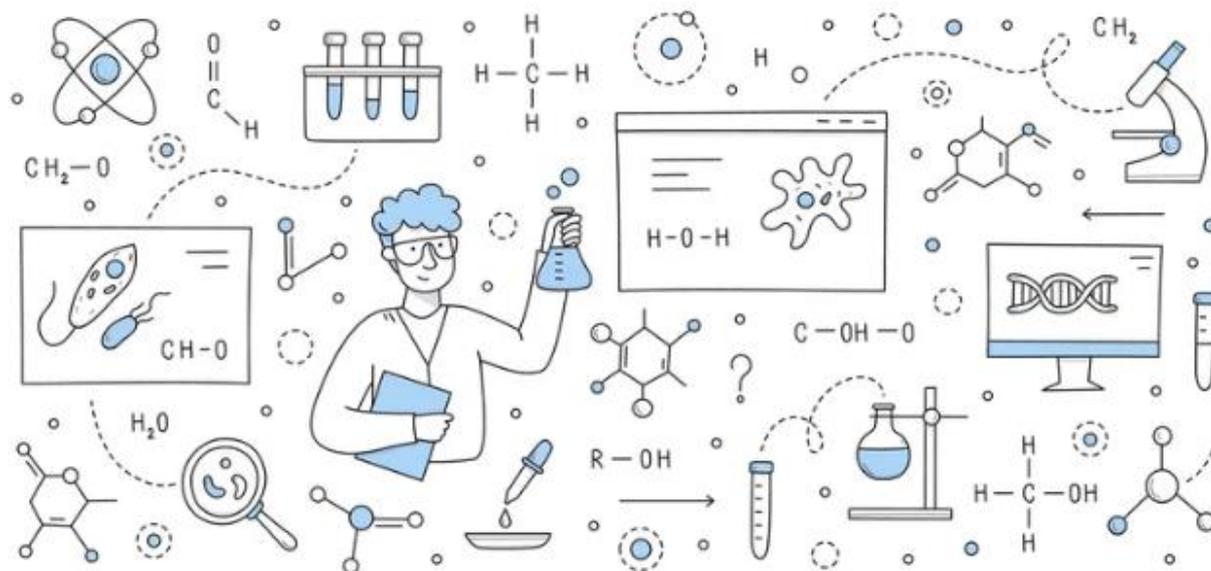
This differentiation is reflected in paper 1 section B of the external assessment.

2. SL students are required to study one option while HL students study two options. This differentiation is reflected in paper 2 of the external assessment.
3. Both SL and HL students will be expected to show their understanding of approaches to research in the internal assessment and for criterion D (critical thinking) in paper 1 section B and paper 2 responses. Additionally, HL students will be directly assessed on their understanding of approaches to research in paper 3 of the external assessment. This will cover both qualitative and quantitative research methods.

PSYCHOLOGY ASSESSMENT OUTLINE

SL	HL
External assessment (3 hours) 75%	External assessment (5 hours) 80%
Paper 1 (2 hours) 50%	Paper 1 (2 hours) 40%
Section A: Three short-answer questions on the core approaches to psychology (27 marks)	Section A: Three short-answer questions on the core approaches to psychology (27 marks)
Section B: One essay from a choice of three on the biological, cognitive and sociocultural approaches to behaviour (22 marks)	Section B: One essay from a choice of three on the biological, cognitive and sociocultural approaches to behaviour. One, two or all of the essays will reference the additional HL topic (22 marks)
(Total 49 marks)	(Total 49 marks)
Paper 2 (1 hour) 25%	Paper 2 (2 hours) 20%
One question from a choice of three on one option (22 marks)	Two questions; one from a choice of three on each of two options (Total 44 marks)
Internal assessment (20 hours) 25%	Paper 3 (1 hour) 20%
This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.	Three short-answer questions from a list of six static questions (published in this guide) on approaches to research (24 marks)
Experimental study	Internal assessment (20 hours) 20%
A report on an experimental study undertaken by the student (22 marks)	This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.
	Experimental study
	A report on an experimental study undertaken by the student (22 marks)

Source: *Psychology guide (published 2019, updated 2020)*



GROUP 4 NATURAL SCIENCES

- BIOLOGY
- CHEMISTRY
- PHYSICS
- SPORTS, EXERCISE AND HEALTH SCIENCE

Group 4 aims

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

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

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

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

Group 4 experimental skills

Integral to the experience of students in any of the group 4 courses is their experience in the classroom, laboratory or in the field. **Practical activities** allow students to **interact directly** with **natural phenomena** and **secondary data sources**. These experiences provide the students with the **opportunity to:**

- **design investigations,**
- **collect data,**
- **develop manipulative skills,**
- **analyse results,**
- **collaborate with peers and**
- **evaluate and communicate their findings**

Experiments can be used to introduce a topic, investigate a phenomenon or allow students to consider and examine questions and curiosities.

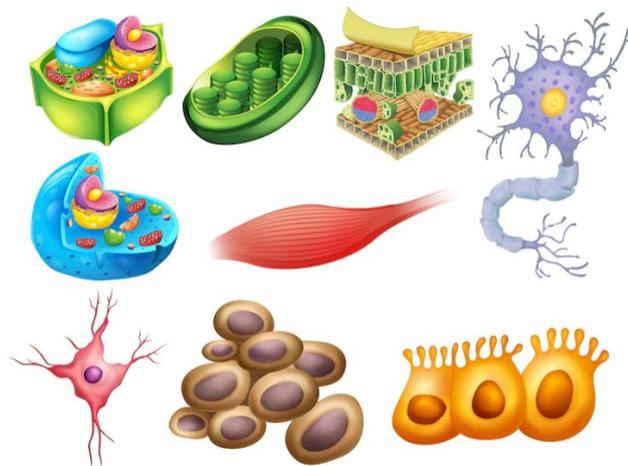
BIOLOGY

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

Syllabus outline

Core

1. Cell biology
2. Molecular biology
3. Genetics
4. Ecology
5. Evolution and biodiversity
6. Human physiology



Additional higher level (AHL)

7. Nucleic acids
8. Metabolism, cell respiration and photosynthesis
9. Plant biology
10. Genetics and evolution
11. Animal physiology

Option

- A. Neurobiology and behaviour
- B. Biotechnology and bioinformatics

C. Ecology and conservation

D. Human physiology

Practical scheme of work

- Practical activities
- Individual investigation (internal assessment–IA)
- Group 4 project

Mathematical requirements

All Diploma Programme **biology students** should be able to:

- perform the basic arithmetic functions: addition, subtraction, multiplication and division
- carry out calculations involving means, decimals, fractions, percentages and ratios
- represent and interpret frequency data in the form of bar charts, graphs and histograms, including direct and inverse proportion
- plot graphs (with suitable scales and axes) involving two variables that show linear or non-linear relationships
- plot and interpret scatter graphs to identify a correlation between two variables, and appreciate that the existence of a correlation does not establish a causal relationship
- determine the mode and median of a set of data, calculate and analyse standard deviation
- select statistical tests appropriate for the analysis of particular data and interpret the results.

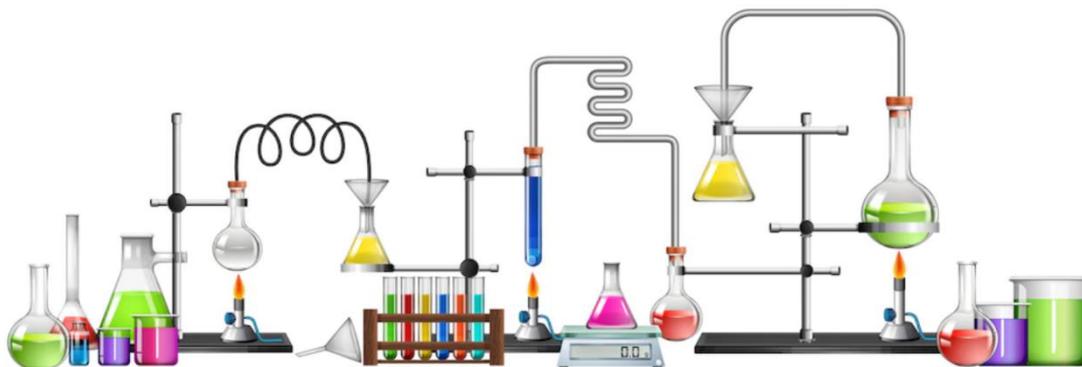
BIOLOGY ASSESSMENT OUTLINE

SL	HL
<p>External assessment details 80%</p> <p>Paper 1 Duration: 45 minutes Weighting: 20% Marks: 30</p> <ul style="list-style-type: none"> • 30 multiple-choice questions on core material, about 15 of which are common with HL. • The use of calculators is not permitted. • No marks are deducted for incorrect answers. 	<p>External assessment details 80%</p> <p>Paper 1 Duration: 1 hour Weighting: 20% Marks: 40</p> <ul style="list-style-type: none"> • 40 multiple-choice questions on core and AHL material, about 15 of which are common with SL. • The use of calculators is not permitted. • No marks are deducted for incorrect answers.
<p>Paper 2 Duration: 1h 15 min Weighting: 40% Marks: 50</p> <ul style="list-style-type: none"> • Data-based question. • Short-answer and extended-response questions on core material. • One out of two extended response questions to be attempted by candidates. • The use of calculators is permitted 	<p>Paper 2 Duration: 2h 15m Weighting: 36% Marks: 72</p> <ul style="list-style-type: none"> • Data-based question. • Short-answer and extended-response questions on core and AHL material. • Two out of three extended response questions to be attempted by candidates. • The use of calculators is permitted.
<p>Paper 3 Duration: 1 hour Weighting: 20% Marks: 35</p> <ul style="list-style-type: none"> • This paper will have questions on core and SL option material. • Section A: candidates answer all questions, two to three short-answer questions based on experimental skills and techniques, analysis and evaluation, using unseen data linked to the core material. • Section B: short-answer and extended-response questions from one option. • The use of calculators is permitted. • The use of calculators is permitted. 	<p>Paper 3 Duration: 1h 15 min Weighting: 24% Marks: 45</p> <ul style="list-style-type: none"> • Section A: candidates answer all questions, two to three short-answer questions based on experimental skills and techniques, analysis and evaluation, using unseen data linked to the core and AHL material. • Section B: short-answer and extended-response questions from one option.
<p>Internal Assessment 20%</p> <p>Scientific investigation The internal assessment task will be one scientific investigation taking about 10 hours and the writeup should be about 6 to</p>	<p>Internal Assessment 20%</p> <p>Scientific investigation The internal assessment task will be one scientific investigation taking about 10 hours and the writeup should be about 6 to 12 pages long. Investigations exceeding this length will be penalized in the</p>

12 pages long. Investigations exceeding this length will be penalized in the communication criterion as lacking in conciseness.

communication criterion as lacking in conciseness.

Source: *Biology Guide (first assessment 2016)*



CHEMISTRY

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

Distinction between SL and HL

The distinction between SL and HL is one of breadth and depth. Group 4 students at standard level (SL) and higher level (HL) undertake a common core syllabus, a common internal assessment (IA) scheme and have some overlapping elements in the option studied.

While the skills and activities of group 4 science subjects are common to students at both SL and HL, students at HL are required to study

some topics in greater depth, in the additional higher level (AHL) material and in the common options.

Syllabus outline

Core

1. Stoichiometric relationships
2. Atomic structure
3. Periodicity
4. Chemical bonding and structure
5. Energetics/thermochemistry
6. Chemical kinetics
7. Equilibrium
8. Acids and bases
9. Redox processes
10. Organic chemistry
11. Measurement and data processing

Option

- A. Materials
- B. Biochemistry
- C. Energy
- D. Medicinal chemistry

Additional higher level (AHL)

12. Atomic structure
13. The periodic table—the transition metals
14. Chemical bonding and structure
15. Energetics/thermochemistry
16. Chemical kinetics
17. Equilibrium
18. Acids and bases
19. Redox processes
20. Organic chemistry
21. Measurement and analysis

Practical scheme of work

- Practical activities
- Individual investigation (internal assessment—IA)
- Group 4 project

Mathematical requirements

All Diploma Programme **chemistry students** should be able to:

- perform the basic arithmetic functions: addition, subtraction, multiplication and division
- carry out calculations involving means, decimals, fractions, percentages, ratios, approximations and reciprocals
- use scientific notation (for example, 3.6×10^6)
- use direct and inverse proportion
- solve simple algebraic equations
- plot graphs (with suitable scales and axes) including two variables that show linear and non-linear relationships
- interpret graphs, including the significance of gradients, changes in gradients, intercepts and areas
- interpret data presented in various forms (for example, bar charts, histograms and pie charts)

CHEMISTRY ASSESSMENT OUTLINE

SL	HL
External assessment details 80%	External assessment details 80%
Paper 1 Duration: 45 minutes Weighting: 20% Marks: 30 <ul style="list-style-type: none"> • 30 multiple-choice questions on core, about 15 of which are common with HL. • The use of calculators is not permitted. • Students will be provided with a periodic table. • No marks are deducted for incorrect answers. 	Paper 1 Duration: 1 hour Weighting: 20% Marks: 40 <ul style="list-style-type: none"> • 40 multiple-choice questions on core and AHL, about 15 of which are common with SL. • The use of calculators is not permitted. • Students will be provided with a periodic table. • No marks are deducted for incorrect answers.
Paper 2 Duration: 1h 15 min Weighting: 40% Marks: 50 <ul style="list-style-type: none"> • Short-answer and extended-response questions on core material. 	Paper 2 Duration: 2h 15 min Weighting: 36% Marks: 90

<ul style="list-style-type: none"> • The use of calculators is permitted. • A chemistry data booklet is to be provided by the school. <p>Paper 3</p> <p>Duration: 1 hour Weighting: 20% Marks: 35</p> <ul style="list-style-type: none"> • This paper will have questions on core and SL option material. • Section A: one data-based question and several short-answer questions on experimental work. • Section B: short-answer and extended-response questions from one option. <ul style="list-style-type: none"> • The use of calculators is permitted. • A chemistry data booklet is to be provided by the school. <p>Internal Assessment 20%</p> <p>Internal assessment component</p> <p>Duration: 10 hours Weighting: 20%</p> <ul style="list-style-type: none"> • Individual investigation <p>The internal assessment task will be one scientific investigation taking about 10 hours and the writeup should be about 6 to 12 pages long. Investigations exceeding this length will be penalized in the communications criterion as lacking in conciseness.</p>	<ul style="list-style-type: none"> • Short-answer and extended-response questions on the core and AHL material. • A chemistry data booklet is to be provided by the school. <p>Paper 3</p> <p>Duration: 1h 15 min Weighting: 24% Marks: 45</p> <ul style="list-style-type: none"> • This paper will have questions on core, AHL and option material. • Section A: one data-based question and several short-answer questions on experimental work. • Section B: short-answer and extended-response questions from one option. <ul style="list-style-type: none"> • The use of calculators is permitted. • A chemistry data booklet is to be provided by the school. <p>Internal Assessment 20%</p> <p>Internal assessment component</p> <p>Duration: 10 hours Weighting: 20%</p> <ul style="list-style-type: none"> • Individual investigation <p>The internal assessment task will be one scientific investigation taking about 10 hours and the writeup should be about 6 to 12 pages long. Investigations exceeding this length will be penalized in the communications criterion as lacking in conciseness.</p>
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Source: *Chemistry Guide (first assessment 2016)*

PHYSICS

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

Distinction between SL and HL

The distinction between SL and HL is one of breadth and depth.

Group 4 students at standard level (SL) and higher level (HL) undertake a common core syllabus, a common internal assessment (IA) scheme and have some overlapping elements in the option studied.

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

Syllabus outline

Core

1. Measurements and uncertainties
2. Mechanics
3. Thermal physics
4. Waves
5. Electricity and magnetism
6. Circular motion and gravitation
7. Atomic, nuclear and particle physics
8. Energy production

Additional higher level (AHL)

9. Wave phenomena
10. Fields
11. Electromagnetic induction
12. Quantum and nuclear physics

Option

- A. Relativity
- B. Engineering physics
- C. Imaging
- D. Astrophysics

Practical scheme of work

- Practical activities
- Individual investigation (internal assessment – IA)
- Group 4 project

Mathematical requirements

All Diploma Programme **physics students** should be able to:

- perform the basic arithmetic functions: addition, subtraction, multiplication and division
- carry out calculations involving means, decimals, fractions, percentages, ratios, approximations and reciprocals
- carry out manipulations with trigonometric functions
- carry out manipulations with logarithmic and exponential functions (HL only)
- carry out manipulations with radians
- use scientific notation (for example, 3.6×10^6)
- use direct and inverse proportion
- solve simple algebraic equations
- solve linear simultaneous equations

- plot graphs (with suitable scales and axes) including two variables that show linear and non-linear relationships
- interpret graphs, including the significance of gradients, changes in gradients, intercepts and areas
- draw lines (either curves or linear) of best fit on a scatter plot graph
- on a best-fit linear graph, construct linear lines of maximum and minimum gradients with relative accuracy (by eye) taking into account all uncertainty bars
- interpret data presented in various forms (for example, bar charts, histograms and pie charts)
- represent arithmetic mean using \bar{x} notation (for example, \bar{x})
- express uncertainties to one or two significant figures, with justification

PHYSICS ASSESSMENT OUTLINE

<p>SL</p> <p>External Assessment</p> <p>Paper 1</p> <p>Duration: 45 min Weighting: 20% Marks: 30</p> <ul style="list-style-type: none"> • 30 multiple-choice questions on core, about 15 of which are common with HL. <ul style="list-style-type: none"> • The use of calculators is not permitted. • No marks are deducted for incorrect answers. • A physics data booklet is provided. <p>Paper 2</p> <p>Duration: 1h 15 min Weighting: 40% Marks: 50</p> <ul style="list-style-type: none"> • Short-answer and extended-response questions on core material. • The use of calculators is permitted • A physics data booklet is provided. 	<p>HL</p> <p>External Assessment</p> <p>Paper 1</p> <p>Duration: 1 hour Weighting: 20% Marks: 40</p> <ul style="list-style-type: none"> • 40 multiple-choice questions on core and AHL, about 15 of which are common with SL. <ul style="list-style-type: none"> • The use of calculators is not permitted. • No marks are deducted for incorrect answers. • A physics data booklet is provided. <p>Paper 2</p> <p>Duration: 2h 15 min Weighting: 36% Marks: 90</p> <ul style="list-style-type: none"> • Short-answer and extended-response questions on the core and AHL material. • The use of calculators is permitted. • A physics data booklet is provided.
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<p>Paper 3 Duration: 1 hour Weighting: 20% Marks: 35</p> <ul style="list-style-type: none"> • This paper will have questions on core and SL option material. • Section A: one data-based question and several short-answer questions on experimental work. • Section B: short-answer and extended-response questions from one option. • The use of calculators is permitted. • A physics data booklet is provided 	<p>Paper 3 Duration: 1h 15 min Weighting: 24% Marks: 45</p> <ul style="list-style-type: none"> • This paper will have questions on core, AHL and option material. • Section A: one data-based question and several short-answer questions on experimental work. • Section B: short-answer and extended-response questions from one option. • The use of calculators is permitted. • A physics data booklet is provided.
<p>Internal assessment 20 % Duration: 10 hours Weighting: 20%</p> <ul style="list-style-type: none"> • Individual investigation <p>The internal assessment task will be one scientific investigation taking about 10 hours and the writeup should be about 6 to 12 pages long. Investigations exceeding this length will be penalized in the communications criterion as lacking in conciseness.</p>	<p>Internal assessment 20 % Duration: 10 hours Weighting: 20%</p> <ul style="list-style-type: none"> • Individual investigation <p>The internal assessment task will be one scientific investigation taking about 10 hours and the writeup should be about 6 to 12 pages long. Investigations exceeding this length will be penalized in the communications criterion as lacking in conciseness.</p>

Source: *Physics Guide (first assessment 2016)*



Sports, Exercise and Health Science

At IV LO the subject is offered only at Standard Level.

Sports, exercise and health science (SEHS) is an experimental science that combines academic study with the acquisition of **practical and investigative skills**. It is an applied science course within group 4, with **aspects of biological and physical science** being studied in the specific context of sports, exercise and health. Moreover, the subject matter goes beyond the traditional science subjects to offer a deeper understanding of the issues related to sports, exercise and health in the 21st century.

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

Subject outline

Core

There are six compulsory topics in the core.

1. Anatomy
2. Exercise physiology
3. Energy systems

4. Movement analysis
5. Skill in sports
6. Measurement and evaluation of human performance

Options

There are four options. Students are required to study any two options.

- A. Optimizing physiological performance
- B. Psychology of sports
- C. Physical activity and health
- D. Nutrition for sports, exercise and health

Practical work

- Investigations
- Group 4 project
- Individual Investigation (IA)

SEHS ASSESSMENT OUTLINE

SL

External assessment (3 hours)	80 %
Paper 1 (45 minutes)	20%
Syllabus content: Core 30 multiple-choice questions on the core syllabus. (30 marks)	
Paper 2 (1 hour 15 minutes)	35%
Syllabus content: Core Section A: Students answer one data-based question and several short-answer questions on the core (all compulsory). (30 marks) Section B: Students answer one extended-response question on the core (from a	

choice of three). (20 marks)
(50 marks)

Paper 3 (1 hour)

25%

Syllabus content: Options

Several short-answer questions (all compulsory) in each of the two options studied.
(40 marks)

Internal assessment/individual investigation (10 hours) 20%

(24 marks)

This component is internally assessed by the teacher and externally moderated.

The group 4 project

The group 4 project is **an interdisciplinary activity** in which all Diploma Programme science students must participate. The intention is that students from the different group 4 subjects **analyse a common topic or problem**. The exercise should be **a collaborative experience** where the emphasis is on the processes involved in, rather than the products of, such an activity.

In most cases, students in a school would be involved in the investigation of the same topic.

Sources: *Sports, Exercise and Health Science Guide (first assessment 2018)*

Therefore, great care should be taken to select the course and level that is most appropriate for an individual student.

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

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

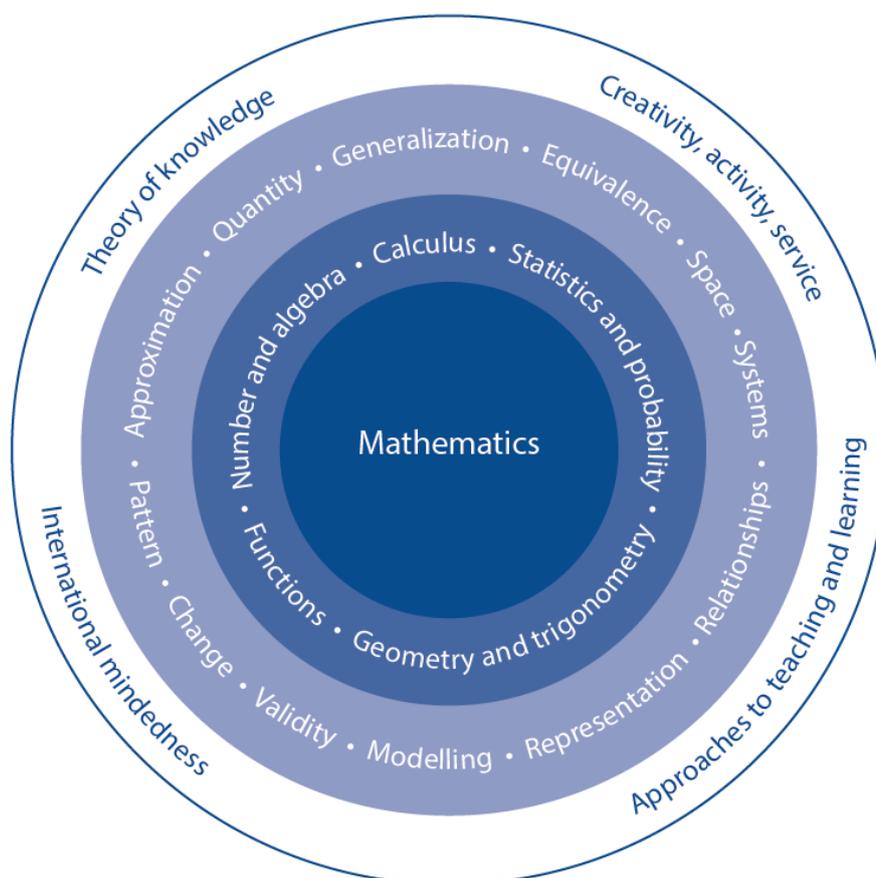
The nature of IB mathematics courses

Mathematics: analysis and approaches is for students who enjoy developing their mathematics to become fluent in the construction of mathematical arguments and develop strong skills in mathematical thinking. They will also be fascinated by exploring real and abstract applications of these ideas, with and without technology. Students who take Mathematics: analysis and approaches will be those who enjoy the thrill of mathematical problem solving and generalization.

Mathematics: applications and interpretation is for students who are interested in developing their mathematics for describing our world and solving practical problems. They will also be interested in harnessing the power of technology alongside exploring mathematical models. Students who take Mathematics: applications and interpretation will be those who enjoy mathematics best when seen in a practical context.

Both subjects are offered at HL and SL. There are many elements common to both subjects although the approaches may be different. Both subjects will prepare students with the mathematics needed for a range of further educational courses corresponding to the two approaches to mathematics set out above.

The mathematics model:



Mathematics: analysis and approaches

This course recognizes the need for analytical expertise in a world where innovation is increasingly dependent on a deep understanding of mathematics. This course includes topics that are both traditionally part of a pre-university mathematics course (for example, functions, trigonometry, calculus) as well as topics that are amenable to investigation, conjecture and proof, for instance the study of sequences and series at both SL and HL, and proof by induction at HL.

The course allows the use of technology, as fluency in relevant mathematical software and hand-held technology is important regardless of choice of course. However, Mathematics: analysis and approaches has a strong emphasis on the ability to construct, communicate and justify correct mathematical arguments.

Mathematics: Analysis and Approaches: Distinction between SL and HL

Students who choose Mathematics: analysis and approaches at SL or HL should be comfortable in the manipulation of algebraic expressions and enjoy the recognition of patterns and understand the mathematical generalization of these patterns. Students who wish to take Mathematics: analysis and approaches at higher level will have strong algebraic skills and the ability to understand simple proof. They will be students who enjoy spending time with problems and get pleasure and satisfaction from solving challenging problems.

Mathematics AA Syllabus outline

Topic 1—Number and algebra

Topic 2—Functions

Topic 3— Geometry and trigonometry

Topic 4—Statistics and probability

Topic 5 —Calculus

All topics are compulsory. Students must study all the sub-topics in each of the topics in the syllabus. Students are also required to be familiar with the topics listed as prior learning (see *Mathematics AA Guide*).

The toolkit and the mathematical exploration

Investigative, problem-solving and modelling skills development leading to an individual exploration. The exploration is a piece of written work that involves investigating an area of mathematics.

Mathematics AA ASSESSMENT OUTLINE

SL	HL
External assessment (3 hours) 80%	External assessment (5 hours) 80%
Paper 1 (1h 30 min) 40% Calculators not allowed. (80 marks)	Paper 1 (2h) 30% Calculators not allowed. (110 marks)
Section A Compulsory short-response questions based on the syllabus.	Section A Compulsory short-response questions based on the syllabus.
Section B Compulsory extended-response questions based on the syllabus.	Section B Compulsory extended-response questions based on the syllabus.

Paper 2 (90 minutes) 40%	Paper 2 (120 minutes) 30%
GDC required. (80 marks)	GDC required. (110 marks)
Section A	Section A
Compulsory short-response questions based on the syllabus.	Compulsory short-response questions based on the syllabus.
Section B	Section B
Compulsory extended-response questions based on the syllabus	Compulsory extended-response questions based on the syllabus.
Internal assessment 20 %	Paper 3 (60 minutes) 20%
This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.	GDC required. (55 marks)
Mathematical exploration	Two compulsory extended response problem-solving questions.
Internal assessment in mathematics is an individual exploration. This is a piece of written work that involves investigating an area of mathematics. (20 marks)	Internal assessment 20%
	This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.
	Mathematical exploration
	Internal assessment in mathematics is an individual exploration. This is a piece of written work that involves investigating an area of mathematics. (20 marks)

Mathematics: Applications and Interpretation

This course recognizes the increasing role that mathematics and technology play in a diverse range of fields in a data-rich world. As such, it emphasizes the meaning of mathematics in context by focusing on topics that are often used as applications or in mathematical modelling. To give this understanding a firm base, this course also includes topics that are traditionally part of a pre-university mathematics course such as calculus and statistics.

The course makes extensive use of technology to allow students to explore and construct mathematical models. Mathematics:

applications and interpretation will develop mathematical thinking, often in the context of a practical problem and using technology to justify conjectures.

Mathematics: Applications and Interpretation: Distinction between SL and HL

Students who choose Mathematics: applications and interpretation at SL or HL should enjoy seeing mathematics used in real-world contexts and to solve real-world problems. Students who wish to take Mathematics: applications and interpretation at higher level will have good algebraic skills and experience of solving real-world problems. They will be students who get pleasure and satisfaction when exploring challenging problems and who are comfortable to undertake this exploration using technology.

Mathematics AI Syllabus outline

Topic 1—Number and algebra:

AHL: Systems, relationships.

Topic 2—Functions

AHL: Generalization, validity.

Topic 3—Geometry and trigonometry

AHL: Quantity, change.

Topic 4—Statistics and probability

AHL: Systems, representation.

Topic 5—Calculus

AHL: Systems, quantity.

MATHEMATICS AI ASSESSMENT OUTLINE

SL	HL
External assessment (3 hours) 80%	External assessment (5 hours) 80%
Paper 1 (90 minutes) 40% GDC required. (80 marks) Compulsory short-response questions based on the syllabus. (80 marks)	Paper 1 (120 minutes) 30% GDC required. (110 marks) Compulsory short-response questions based on the syllabus.
Paper 2 (90 minutes) GDC required. (80 marks) Compulsory extended-response questions based on the syllabus. (80 marks)	Paper 2 (120 minutes) GDC required. (110 marks) Compulsory extended-response questions based on the syllabus.
Internal assessment 20%	Paper 3 (60 minutes) 20%
Mathematical exploration This component is internally assessed by the teacher and externally moderated by the IB at the end of the course. Internal assessment in mathematics is an individual exploration. This is a piece of written work that involves investigating an area of mathematics. (20 marks)	GDC required. (55 marks) Two compulsory extended response problem-solving questions.
	Internal assessment 20%
	Mathematical exploration This component is internally assessed by the teacher and externally moderated by the IB at the end of the course. Internal assessment in mathematics is an individual exploration. This is a piece of written work that involves investigating an area of mathematics. (20 marks)

Sources:

- *Mathematics: analysis and approaches Guide (first assessment 2021) and Mathematics: interpretation and application Guide (first assessment 2021)*

GROUP 6

At IV LO, students may opt to study an additional Group 2 (languages course), or Group 4 (natural sciences) as their Group 6 subject (subject to availability and scheduling constraints).



Core



THEORY OF KNOWLEDGE - TOK

Nature of the subject

The 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.

The TOK course provides students with an opportunity to explore and reflect on the nature of knowledge and the process of knowing. It is a core element of the DP to which schools are required to devote at least 100 hours of class time.

In TOK, students reflect on the knowledge, beliefs and opinions that they have built up from their years of academic studies and their lives

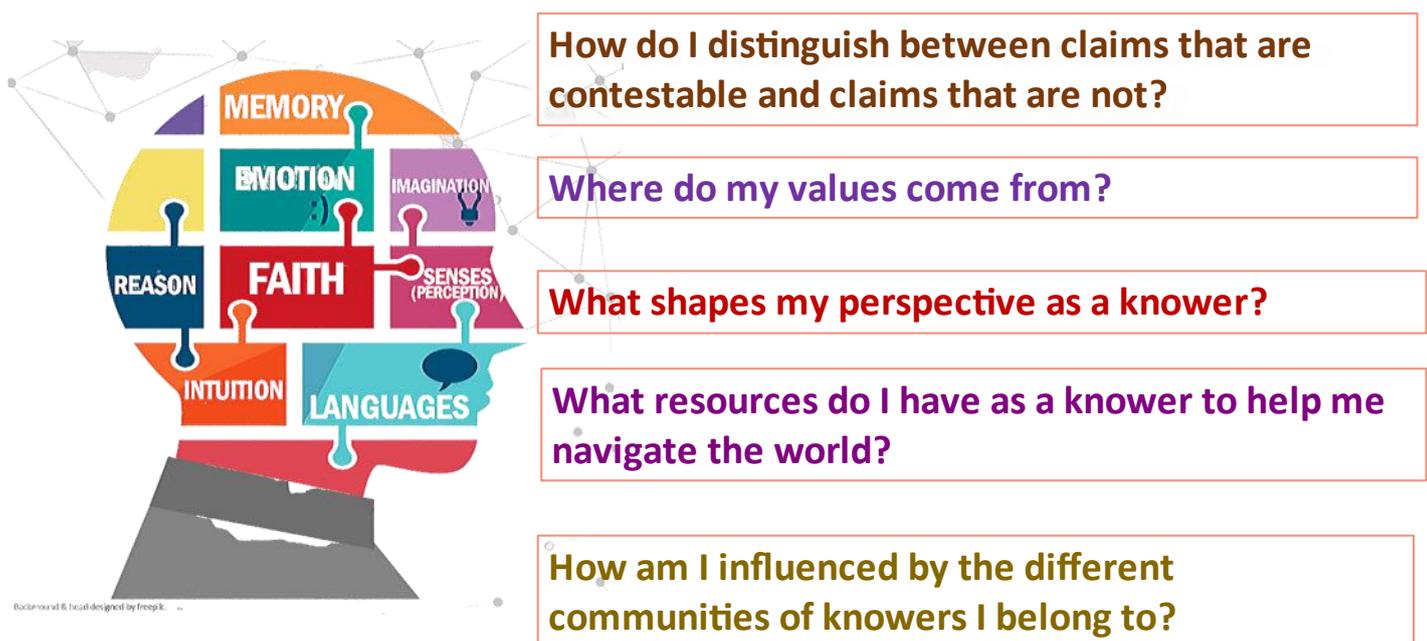
outside the classroom. The course is intended to be challenging and thought-provoking—as well as empowering—for students.

The course centres on the exploration of knowledge questions, which are a key tool for both teachers and students. These are contestable questions about knowledge itself, such as: *“What counts as good evidence for a claim?”*, *“Are some types of knowledge less open to interpretation than others?”*, or *“What constraints should there be on the pursuit of knowledge?”*. While these questions may initially seem slightly intimidating, they become much more accessible when considered with reference to specific examples within the TOK course.

The TOK curriculum is made up of three deeply interconnected parts.

The core theme—Knowledge and the knower: This theme encourages students to reflect on themselves as knowers and thinkers, and to consider the different communities of knowers to which we belong.

Core theme: Knowledge and the knower



Optional themes: This element provides an opportunity to take a more in-depth look at two themes of particular interest to teachers and students. The given themes all have a significant impact on the world today and play a key role in shaping people's perspectives and identities. Teachers select **two optional themes** from a choice of five:

- knowledge and technology
- knowledge and language
- knowledge and politics
- knowledge and religion
- knowledge and indigenous societies

Areas of knowledge: The areas of knowledge (AOK) are specific branches of knowledge, each of which can be seen to have a distinct nature and sometimes use different methods of gaining knowledge. In TOK, students explore five compulsory areas of knowledge:

- history
- the human sciences
- the natural sciences
- mathematics
- and the arts.

TOK ASSESSMENT OUTLINE

There are two assessment tasks in the TOK course.

The TOK exhibition assesses the ability of the student to show how TOK manifests in the world around us. The exhibition is an internal assessment component; it is marked by the teacher and is externally moderated by the IB.

TOK assessment details The TOK exhibition

The exhibition comprises:

1. three objects (or images of objects) linked to the same IA prompt
2. a typed commentary on each object that:
 - identifies each object and its specific real-world context
 - justifies its inclusion in the exhibition
 - links to the IA prompt (maximum 950 words)
 - appropriate citations and references



For marking and sampling: Students produce a single file containing: a title indicating selected IA prompt and images of their three objects

The TOK essay engages students in a more formal and sustained piece of writing in response to a title focused on the areas of knowledge. The essay is an external assessment component; it is marked by IB examiners. The essay must be a maximum of **1,600 words** and must be on one of **the six prescribed titles** issued by the IB for each examination session.

Sample TOK essay topics (from session May 2022)

Topic 1.

Can there be knowledge that is independent of culture? Discuss with reference to mathematics and one other area of knowledge.

Topic 2.

To what extent do you agree with the claim that "there's a world of difference between truth and facts". (Maya Angelou) Answer with reference to two areas of knowledge.

Topic 3.

Is there solid justification for regarding knowledge in the natural sciences more highly than another area of knowledge? Discuss with reference to the natural sciences and one other area of knowledge.

Topic 4.

How do historians and human scientists give knowledge meaning through the telling of stories? Discuss with reference to history and the human sciences.

Topic 5.

How can we distinguish between good and bad interpretations? Discuss with reference to the arts and one other area of knowledge.

Topic 6.

If we conclude that there is some knowledge we should not pursue on ethical grounds, how can we determine the boundaries of acceptable investigation within an area of knowledge? Discuss with reference to two areas of knowledge.

TOK assessment outline

Internal assessment			
Theory of knowledge exhibition	<ul style="list-style-type: none"> students create an exhibition that explores how TOK manifests in the world around us. internally assessed by the teacher and externally moderated by the IB at the end of the course 	10 marks	1/3 33%
External assessment			
TOK essay on a prescribed title	<ul style="list-style-type: none"> students write an essay in response to one of the six prescribed titles that are issued by the IB for each examination session. external assessment component, marked by IB examiners 	10 marks	2/3 67%



EXTENDED ESSAY - EE

The extended essay is an in-depth study of a focused topic chosen from the list of the student's six chosen subjects.

It is intended to promote academic research and writing skills, providing students with an opportunity to engage in personal research in a topic of their own choice, under the guidance of a supervisor (an appropriately qualified member of staff within the school). This leads to a major piece of formally presented, structured writing, in which ideas and findings are communicated in a reasoned and coherent manner, appropriate to the subject chosen.

It is mandatory that all students undertake **three reflection sessions with their supervisor**, which includes a short, concluding interview, or **viva voce**, with their supervisor following the completion of the extended essay. An assessment of this reflection process is made under criterion E (Engagement) using the **Reflections on planning and progress form**.

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

Key features of the Extended Essay

- The extended essay is compulsory for all students taking the Diploma Programme.
- **A student must achieve a D grade or higher to be awarded the Diploma.**
- The extended essay is **externally assessed** and, in combination with the grade for theory of knowledge, contributes up to three points to the total score for the IB Diploma.
- The extended essay process helps prepare students for success at university and in other pathways beyond the Diploma Programme.
- When choosing a subject for the extended essay, students must consult the list of available Diploma Programme subjects published in the Diploma Programme Assessment procedures for the session in question.
- **The extended essay is a piece of independent research on a topic chosen by the student in consultation with a supervisor in the school.**
- It is presented as a formal piece of sustained academic writing containing no more than 4,000 words accompanied by a reflection form of no more than 500 words.
- It is the result of approximately 40 hours of work by the student.
- Students are supported by a supervision process recommended to be 3–5 hours, which includes three mandatory reflection sessions.
- The third and final mandatory reflection session is the viva voce, which is a concluding interview with the supervising teacher.

SAMPLE EXTENDED ESSAYS TOPICS

Language A

- Cat1: The portrayal of marriages as imperfect in *Middlemarch* by George Eliot.
- Cat 2: The importance of satire in the travels of the main characters in *Huckleberry Finn* and *Candide*.
- Cat 3: The use of language and other persuasive techniques to confront the ideology of the United States by Malcolm X and other civil rights activists.

Economics

- The effect of the recent imposition of a minimum wage in Austria on unemployment in the fast food industry in Graz

Geography

- Challenges in ensuring a sustainable tourism industry on the island of ABC, XYZ
- The extent that soil characteristics affect land use on a farm in ABC, XYZ

History

- An examination of the extent to which the overthrow of Allende in 1973 was the result of external factors.
- An evaluation of the success of denazification carried out in the US zone of Germany 1945–48.

Biology

- The effect of detergent toxicity on soil bacteria.
- A study of the effect of differing pH levels on the growth of *Phaseolus vulgaris*.

Mathematics

- Using graph theory to minimize cost.
- Prime numbers in cryptography.

Source: *Extended essay (first assessment 2018)*



CREATIVITY ACTIVITY SERVICE – CAS

CAS is at the heart of the Diploma Programme. With its holistic approach, CAS is designed to strengthen and extend students' personal and interpersonal learning.

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 enables students to demonstrate attributes of **the IB learner profile in real and practical ways**, to grow as unique individuals and to recognize their role in relation to others.

Students develop skills, attitudes and dispositions through a variety of individual and group experiences that provide students with opportunities to explore their interests and express their passions, personalities and perspectives. CAS complements a challenging academic programme in a holistic way, providing opportunities for self-determination, collaboration, accomplishment and enjoyment.

CAS enables students to enhance their personal and interpersonal development. A meaningful CAS programme is a journey of discovery of self and others. For many, CAS is profound and life-changing.

Each individual student has a different starting point and different needs and goals. A CAS programme is, therefore, individualized according to student interests, skills, values and background.

The school and students must give CAS as much importance as any other element of the Diploma Programme and ensure sufficient time is allocated for engagement in the CAS programme. The CAS stages offer a helpful and supportive framework and continuum of process for CAS students.

Successful completion of CAS is a requirement for the award of the IB Diploma. While not formally assessed, students reflect on their CAS experiences and provide evidence in their CAS portfolios of achieving the seven learning outcomes.

The CAS programme formally begins at the start of the Diploma Programme and continues regularly, ideally on a weekly basis, for at least 18 months with a reasonable balance between creativity, activity, and service.

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 for student reflections; it is not formally assessed.

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.

Students engage in CAS experiences involving one or more of the three CAS strands. A CAS experience can be a single event or may be an extended series of events.

Further, students undertake **a CAS project of at least one month's duration** that challenges students to show initiative, demonstrate perseverance, and develop skills such as collaboration, problem-

solving, and decision-making. The CAS project can address any single strand of CAS, or combine two or all three strands.

Students use the CAS stages (investigation, preparation, action, reflection and demonstration) as a framework for CAS experiences and the CAS project.

There are three formal documented interviews students must have with their CAS coordinator/adviser. The first interview is at the beginning of the CAS programme, the second at the end of the first year, and the third interview is at the end of the CAS programme.

CAS emphasizes reflection which is central to building a deep and rich experience in CAS. Reflection informs students' learning and growth by allowing students to explore ideas, skills, strengths, limitations and areas for further development and consider how they may use prior learning in new contexts.

CAS LEARNING OUTCOMES

In CAS, there are seven learning outcomes.

LO 1 Identify own strengths and develop areas for growth

Students are able to see themselves as individuals with various abilities and skills, of which some are more developed than others.

LO 2 Demonstrate that challenges have been undertaken, developing new skills in the process

A new challenge may be an unfamiliar experience or an extension of an existing one. The newly acquired or developed skills may be shown through experiences that the student has not previously undertaken or through increased expertise in an established area.

LO 3 Demonstrate how to initiate and plan a CAS experience

Students can articulate the stages from conceiving an idea to executing a plan for a CAS experience or series of CAS experiences. This may be accomplished in collaboration with other participants. Students may show their knowledge and awareness by building on a previous experience, or by launching a new idea or process.

LO 4 Show commitment to and perseverance in CAS experiences

Students demonstrate regular involvement and active engagement in CAS.

LO 5 Demonstrate the skills and recognize the benefits of working collaboratively

Students are able to identify, demonstrate and critically discuss the benefits and challenges of collaboration gained through CAS experiences.

LO 6 Demonstrate engagement with issues of global significance

Students are able to identify and demonstrate their understanding of global issues, make responsible decisions, and take appropriate action in response to the issue either locally, nationally or internationally.

LO 7 Recognize and consider the ethics of choices and actions

Students show awareness of the consequences of choices and actions in planning and carrying out CAS experiences.

THE RESPONSIBILITY OF THE CAS STUDENT

CAS students are expected to:

- approach CAS with a proactive attitude

- develop a clear understanding of CAS expectations and the purpose of CAS
- explore personal values, attitudes and attributes with reference to the IB learner profile and the IB mission statement
- determine personal goals
- discuss plans for CAS experiences with the CAS coordinator and/or CAS adviser
- understand and apply the CAS stages where appropriate
- take part in a variety of experiences, some of which are self-initiated, and at least one CAS project
- become more aware of personal interests, skills and talents and observe how these evolve throughout the CAS programme
- maintain a CAS portfolio and keep records of CAS experiences including evidence of achievement of the seven CAS learning outcomes
- understand the reflection process and identify suitable opportunities to reflect on CAS experiences
- demonstrate accomplishments within their CAS programme
- communicate with the CAS coordinator/adviser and/or CAS supervisor in formal and informal meetings
- ensure a suitable balance between creativity, activity and service in their CAS programme
- behave appropriately and ethically in their choices and behaviours

Source: *CAS guide (for students graduating in 2017 and thereafter)*

- *Psychology Guide (first assessment 2019)*
- *Sports, Exercise and Health Science Guide (first assessment 2018)*
- *TOK Guide (first assessment 2022)*

Images:

- Freepik.com
- Canva.com
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Further information:

- <https://www.ibo.org/programmes/diploma-programme/>
- www.4liceum.pl
- www.facebook.com/IBDP4liceum
- www.instagram.com/4liceum_lodz/

VISIT: www.facebook.com/IBDP4liceum

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