

# IB DIPLOMA OPTIONS

2024-2026





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# THE INTERNATIONAL BACCALAUREATE DIPLOMA PROGRAMME

The International Baccalaureate aims to develop inquiring, knowledgeable and caring young people who help create a better and more peaceful world through intercultural understanding and respect.

To this end, the organisation works with schools, governments, and international organisations to develop challenging international education programmes and rigorous assessments. These programmes encourage students worldwide to become active, compassionate, and lifelong learners who understand that other people may have different yet valid viewpoints.

The full IB Diploma is an academically rigorous and challenging programme. Successful IB Diploma students demonstrate organisation, hard work and academic ability. The two-year pre-university course leads to an internationally recognised qualification. Depending on the level awarded, it allows students access to the most prestigious undergraduate courses in the world. Universities value the Diploma's academic rigour and the course's development of critical thinkers who have sufficient depth of knowledge to move successfully onto higher education.

The programme aims to develop students who have excellent breadth and depth of knowledge – students who flourish physically, intellectually, emotionally and ethically.

The Diploma is a matriculation examination. Each student takes six subjects, three at Higher Level and three at Standard Level, along with a course in critical thinking (Theory of Knowledge -TOK), an extended piece of research (the Extended Essay) and a personal involvement in their community through Creativity, Activity, Service (CAS).

The scores from each of the six subjects, along with marks gained from the TOK and the Extended Essay, add up to a total Diploma score out of 45. Students must earn a minimum of 24 points to gain the full IB diploma.



# CHOICE OF SUBJECTS

The Diploma regulations require that students select three Higher Level subjects, three Standard Level subjects; undertake a Theory of Knowledge programme (including the IB graded TOK assessments); complete an Extended Essay; and meet the CAS requirements to be eligible for the full Diploma.

The subjects chosen must be from each subject group, as outlined in the Diploma hexagon on the previous page. Students must also select a sixth subject either from group six or from any of the other groups. Available subject choices offered by LCIS are dependent on the number of students opting for that subject. Please see the Group 1 to 6 options on page 25 of this booklet for further details. The choice of subjects taken is governed by the IB Diploma regulations and should take into consideration the student's higher education course choices along with country specific requirements.

Several university courses worldwide require specific subject choices. The staff at LCIS, along with our designated Higher Education Coordinator, are very happy to offer guidance as to the most appropriate courses to select for specific university programmes and other Higher Education pathways.

Swiss universities have particularly stringent admission criteria and require a minimum of 32 points. The Ecole Polytechnique Fédérale de Lausanne (EPFL) and the Eidgenössische Technische Hochschule Zürich (ETHZ) require a minimum of 38 points, not including points earned for TOK or Extended Essay. The teaching at Swiss universities can often be in the local language, requiring evidence of B2 level proficiency. IB language qualifications are not an accepted substitute.

The following is a list of the generally accepted qualifications for Swiss universities:

- 1. First language (native language)
- 2. Second language
- 3. Mathematics (Higher Level / Standard Level)
- 4. Natural sciences (biology, chemistry or physics)
- 5. Humanities and social sciences (geography or history)

Elective (one more subject from category 2, 4 or 5).

Diploma Programme group 6 subjects do not count as eligible courses for Swiss universities. Individual Swiss universities have their own requirements and these can be accessed at:

www.swissuniversities.ch/en/topics/studying/admission-to-universities/international-baccalaureate/

We are very happy to meet to explain this in more detail with any parents who may be considering a Swiss university for their son or daughter.

Each of the six chosen Diploma Programme subjects is graded from 1 to 7. Students must score 24 points or above in their exams at the end of the second year and complete the Extended Essay, the TOK assessments, and the CAS programme to be awarded the IB Diploma.

The following pages will outline what the different groups of the IB Diploma are and the courses that may be offered at LCIS. (Available subject choices offered by LCIS are dependent on the number of students opting for that subject).

# **GROUP 1: STUDIES IN LANGUAGE AND LITERATURE**

#### Language A (Mother tongue)

- English Language and Literature (HL/SL)
- · French Language and Literature (HL/SL)
- · School Supported Self-taught Literature (SL) Independent learner course

#### Language A: English Language and Literature or French Language and Literature

The study of literary and non-literary texts is central to an active engagement with language and culture. A key aim of the Language and Literature course is to encourage students to question the meaning generated by language and texts, helping students to focus closely on the language of the texts they study, and to become aware of the role of each text's wider context in shaping its meaning.

In the Diploma Programme, there is a strong emphasis on encouraging students to develop intercultural understanding, open-mindedness, and the attitudes necessary for them to respect and evaluate a range of points of view. The Language and Literature programme looks at a variety of texts from different nations, genres, and time periods to help students understand global issues and themes.

The course is divided into three Areas of Exploration: Readers, Writers and Texts; Time and Space and Intertextuality.

Focusing on Key Concepts and Global Issues, students explore language and literature texts through these lenses and are given autonomy over the texts they choose to focus on for the various assessments.

#### Standard Level / Higher Level

For standard level (SL), four literary works are studied, covering two major literary forms, two periods and two places. A number of non-literary texts from a range of different text types must also be studied.

Assessment consists of a Paper 1 guided textual analysis of a non-literary text; a Paper 2 comparative essay based on two literary works studied and an individual oral where a non-literary body of work and a literary work are discussed in relation to a global issue.

Higher level (HL) students follow the same programme but must study six works, covering three major literary forms, three periods and three places. A number of non-literary texts from a range of different text types must also be studied.

Assessment is similar to SL (albeit with different expectations regarding the amount covered in each exam) but there is also the addition of an HL Essay of 1200-1500 words written during the course where students are asked to develop a line of inquiry of their own choice in relation to one of the bodies of work or works studied.

#### SL Assessment:

- External assessment (written papers and external marked written assignment) 70%
- · Internal assessment (marked by teacher but moderated by the IB) 30%

#### **HL Assessment:**

- External assessment (written papers and external marked written assignment) 70%
- Internal assessment (marked by teacher but moderated by the IB) 30%

#### Self-Taught Literature

If, for any reason, LCIS cannot offer a Language A course in a student's mother tongue, a self-taught language option will be offered to those students who have demonstrated sufficient academic ability in the target language, as well as focus and self-motivation.

This is only offered by the IB at SL. The school will endeavour, but cannot guarantee, to offer a tutor who will support the student. Tutors for the self-taught language options are not always literature teachers.

Self-taught courses follow the taught SL literature programmes, however assessments are all set and marked by the IB organisation. Assessments for taught programmes, on the other hand, are set and graded by our teachers, although the IB moderates these grades.

Self-taught can be offered to suitable students in all the major languages (for exact choices, please see the DP Coordinator).

# **GROUP 2: LANGUAGE ACQUISITION**

#### Language B

Group 2 consists of two modern language courses, language Ab Initio and Language B, that may be offered in French, English, Spanish and German (depending on numbers).

Language Ab Initio and Language B are language acquisition courses designed to provide students with the necessary skills and intercultural understanding to enable them to communicate successfully in an environment where the language studied is spoken. This process encourages

the learner to go beyond the confines of the classroom, expanding an awareness of the world and fostering respect for cultural diversity.

The aims of Group 2 are to:

- 1. develop students' intercultural understanding
- 2. enable students to understand and use 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 the different perspectives of people from other cultures
- 4. develop students' awareness of the role of language in relation to other areas of knowledge
- 5. develop students' awareness of the relationship between the languages and cultures with which they are familiar
- 6. provide students with a basis for further study, work and leisure through the use of an additional language
- 7. provide the opportunity for enjoyment, creativity and intellectual stimulation through knowledge of an additional language.

#### Ab Initio (SL only)

Ab Initio is designed as a primary language acquisition course and, as such, is for those who have little or no prior experience.

The overall objective of this course is for students to achieve competence in communication in a variety of everyday situations.

#### Outline:

The Language Ab Initio course is organised into five themes.

- · Identities
- Experiences
- Human ingenuity
- Social organisation
- · Sharing the planet

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

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#### Assessment:

- · Internal: 25% (Oral presentation)
- External: 75% (Reading and listening comprehension and writing production)

#### Standard Level / Higher Level

Language B is an additional language-learning course designed for students with some previous learning of that language. It may be studied at either SL or HL. The main focus of the course is on language acquisition and development of language skills. These language skills will be developed through the study and use of a range of written and spoken material. Such material will extend from everyday oral exchanges to literary texts and will be related to the culture(s) concerned. The material will be chosen to enable students to develop mastery of language skills and intercultural understanding.

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

#### Syllabus Outline:

The syllabus consists of the study of the following five themes which are common to both levels:

- Identities
- Experiences
- Human ingenuity
- Social organisation
- · Sharing the planet

HL: students read two works of literature

#### Assessment:

- · Internal: 25% (Oral presentation)
- External: 75% (Reading and listening comprehension and writing production)



# **GROUP 3: INDIVIDUALS AND SOCIETIES**

Studying any one of the individuals and societies subjects ensures the development of a critical appreciation of human experience and behaviour; the varieties of physical, economic, and social environments that people inhabit; and the history of social and cultural institutions. In addition, each subject is designed to foster in students the capacity to identify, to analyse critically and to evaluate theories, concepts and arguments relating to the nature and activities of individuals and societies.

The aims of all subjects in Group 3 – Individuals and Societies 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 recognise that the content and methodologies of the subjects in group 3 are contestable and that their study requires the toleration of uncertainty.

#### Geography

Geography is a dynamic subject that is firmly grounded in the real world and focuses on the interactions between individuals, societies and the physical environment in both time and space. It seeks to identify trends and patterns in these interactions and examines the processes behind them. It also investigates the way that people adapt and respond to change and evaluates management strategies associated with such change.

Geography describes and helps to explain the similarities and differences between spaces and places.

The Geography programme integrates both physical and human geography, and ensures that students acquire elements of both scientific and socio-economic methodologies. It examines relevant concepts and ideas from a wide variety of disciplines, helping students to develop an appreciation of alternative approaches, viewpoints, and ideas.

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

- 1. develop an understanding of the interrelationships between people, places, spaces and the
- 2. develop a concern for human welfare and the quality of the environment, and an understanding of the need for planning and sustainable management
- 3. appreciate the relevance of geography in analysing contemporary issues and challenges, and develop a global perspective of diversity and change.

#### Assessment:

Assessment of the Geography programme is a combination of summative examinations and coursework.

Standard	Level	
Internal	School-based assessment (written study)	25%
External	Written examinations	75%

Higher Level				
Internal	School-based assessment (written study)	20%		
External	Written examinations	80%		

#### Paper 1 (SL/HL):

- Food and Health
- · Leisure, Tourism and Sport
- · Geophysical Hazards (HL only)

#### Paper 2 (SL/HL):

- · Changing Population
- Global Climate
- · Global Resources

#### Paper 3 (HL only):

- · Power, Places and Networks
- · Human Development and Diversity
- · Global Risks and Resilience

#### Internal assessment:

An integral aspect of this programme is the completion of fieldwork that is internally assessed. The Internal Assessment requirements are the same for both SL & HL students, however, the overall weighting of the work differs (25% for SL and 20% for HL.) The Internal Assessment offers students the opportunity to undertake primary research on a topic that gives opportunity for spatial analysis in relation to one or more aspects of the programme of study. This component involves students taking part in a fieldwork visit, the costs of which will be met by the student/parents.

#### History

History is a dynamic, 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 multi-perspective approach to history. It involves studying a variety of types of history, including political, economic, social and cultural, and provides a balance of structure and flexibility. The course emphasises 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.

Distinction between SL and HL Students at Standard Level (SL) and Higher Level (HL) are presented with a syllabus that has a common core consisting of prescribed subjects and topics in world history.

In addition, students at HL are also required to undertake an in-depth study of three sections from one of the HL regional options. While many of the skills of studying history are common to both SL and HL, the teaching hours at SL and HL signals a clear distinction between the demands made on students, with the greater depth of study required for HL.

#### Assessment:

Assessment in the History course is a combination of summative examinations and coursework.

Standard Level			
Internal	School-based assessment	25%	
External	Written examinations	75%	

Higher Level			
Internal	Internal School-based assessment		
External	Written examinations	80%	

#### SL and HL Syllabus:

- · The study of one prescribed topic
- · The study of two world history topics from a choice of twelve
- An historical investigation

#### Paper 1: (SL/HL):

The Move toward Global War

The prescribed subject consists of two case studies, each taken from a different region of the world. Both case studies specified for the chosen prescribed subject must be studied.

- Case study 1: Japanese expansion in East Asia (1931–1941)
- Case Study 2: German and Italian expansion (1933–1940)

#### Paper 2 (SL/HL):

- Authoritarian states (20th century) European (Hitler and Mussolini) and Non-European (Mao, Castro)
- · The Cold War: Superpower tensions and rivalries (20th century)

#### Paper 3 (HL only):

- Versailles to Berlin: Diplomacy in Europe (1919–1945)
- European states in the inter-war years (1918–1939)
- The Soviet Union and post-Soviet Russia (1924–2000)

#### **Business Management**

Business Management is an academic discipline that is on offer in group three (Individuals and Societies) of the Diploma Programme. The course has been designed to enable students to examine the role of a business. The course also looks at the business decision-making processes, how these decisions impact on the business's stakeholders and how they are affected by factors, both internal and external, to an organisation.

The programme enables students to develop an understanding of business theory, as well as an ability to apply business principles, practices and skills. The course considers the diverse range of business organisations and activities; it examines the cultural and economic context in which businesses operate.

While following the DP Business Management course students will place an emphasis on both strategic decision making, and the day-to-day business functions of marketing, production, human resource management and finance. The importance of making links between these functions is also emphasised, encouraging students to develop a holistic view of business activity. The ideals of international cooperation and responsible citizenship are at the heart of the business management course. The course encourages the appreciation of ethical concerns, as well as issues of corporate social responsibility (CSR). It is designed to give the students an international perspective of business and to promote their appreciation of cultural diversity.

Contextualised learning is deeply embedded in the Business Management course and, through the use of case studies and real-life data, students learn to analyse, discuss and evaluate business activities at local, national and international levels. The course covers a range of organisations from all sectors and through the exploration of six concepts underpinning the subject (change, culture, ethics, globalisation, innovation and strategy) the business management course allows the students to develop their understanding of these concepts from a business perspective.

The course also aims to develop transferable skills relevant to today's students. These include the ability to: think critically; make ethically sound and well-informed decisions; appreciate the pace, nature and significance of change; and undertake long term planning, analysis and evaluation.

By the end of the DP Business Management course students will be able to:

- 1. have a holistic view of the world of business
- 2. think critically and strategically about individual and organisational behaviour
- 3. see the importance of exploring business issues from different cultural perspectives
- 4. appreciate the nature and significance of change in a local, regional and global context
- 5. have an awareness of the importance of environmental, social and ethical factors in the actions of individuals and organisations
- 6. develop an understanding of the importance of innovation in a business environment.

#### Assessment:

Assessment in the Business Management course is a combination of summative examinations and coursework.

Standard Level			
Internal	School-based assessment (written study)	25%	
External	Written examinations	75%	

Higher Level			
Internal	School-based assessment (written study)	25%	
External	Written examinations	75%	

#### Internal assessment:

The research project enables HL students to demonstrate the application of their skills and knowledge to real organisational issues or decision-making. Students must select a real organisation, not a fictional one, and the issue or decision under investigation must also be real. The expectation is that a student should gather primary research from the organisation and engage with management, as well as have their permission to do surveys amongst staff and/or customers.

The style and format of the report should be in the form of a useful working document for management.

The SL internal assessment is a written commentary. Students need to demonstrate the application of business and management tools, techniques and theories to a real business issue or problem.

Students must select a real issue or problem, not a fictional one, and must produce a commentary with a title presented as a question. The commentary must refer directly to a single business organisation but may consider industry-wide issues that impact on that organization. The commentary must be based on primary and/or secondary data, selected for its suitability.

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# **GROUP 4: SCIENCES**

The study of science is essential in our modern day for the development of a well-rounded individual. The group 4 subjects encourage students to develop their skills and knowledge base so that they can have some basis to understand the complexities of life. These skills, along with the TOK course, will allow students to better understand what exactly science can and cannot do. Students will find a whole range of everyday uses for the skills and knowledge they will gain in a group 4 course.

It is in this context that all the Diploma Programme experimental science courses should aim to:

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

#### Biology

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

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

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

#### Syllabus content:

- 1. Unity and Diversity
- 2. Form and Function
- 3. Interaction and Interdependence
- 4. Continuity and Change

#### Assessment:

• External exams (2 papers) 80%

Paper 1: multiple choice, and data-based questions

Paper 2: data-based questions, short answer and extended response questions

Internal scientific investigation 20%

#### Chemistry

The DP Chemistry course will allow students to understand more deeply many aspects of everyday life. Chemistry is a laboratory science; its subject material and theories are based on experimental observations. Its scope reaches beyond the laboratory into every aspect of our lives to understanding of models and materials, nature of our planet, the environment that we live in, the resources available to us and the factors that affect our health. The DP chemistry course covers a range of inorganic, organic and analytical chemistry topics in the context of three overarching frameworks: nature of science, approaches to learning and skills in the study of chemistry. These skills involve the development of experimental techniques, application of technology, mathematics and inquiry skills in a range of contexts.

#### Syllabus content:

Structure		Reactivity	
Structure refers to the nature of matter from simple to more complex forms.		Reactivity refers to how and why chemical reactions occur.	
1. Structure 1: models of the particulate nature of matter.		4.	Reactivity 1: what drives chemical reactions?
2.	Structure 2: models of bonding and structure.	5.	Reactivity 2: how much, how fast and how far?
3.	Structure 3: classification of matter.	6.	Reactivity 3: what are the mechanisms of chemical change?

#### Assessment:

• External exams (2 papers) 80%

Paper 1: multiple choice, data-based questions and lab-based questions

Paper 2: short answer and extended-response questions

· Internal scientific investigation 20%

#### **Physics**

Physics is concerned with an attempt to understand the natural world; from determining the nature of the atom to finding patterns in the structure of the universe. Observations are essential to the very core of the subject. Models are developed to try to understand observations, and these themselves can become theories that attempt to explain the observations. Besides leading to a better understanding of the natural world, physics gives us the ability to alter our environments.

At the human level, Physics underpins the science and technology of our modern world. In addition, the study of Physics equips students with a broad and highly useful set of problem-solving, analytical and communication skills applicable to many professional activities.

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

#### Syllabus content:

- 1. Space, Time and Motion
- 2. The Particulate Nature of Matter
- 3. Wave behaviour
- 4. Fields
- 5. Nuclear and Quantum Physics

#### Assessment:

• External exams (2 papers) 80%

Paper 1: multiple choice, and data-based questions

Paper 2: short answer and extended-response questions

Internal scientific investigation 20%

#### **Design Technology**

Design is the link between innovation and creativity, taking thoughts and exploring the possibilities and constraints associated with products or systems, allowing them to redefine and manage the generation of further thought through prototyping, experimentation and adaptation. It is human-centred and focuses on the needs, wants and limitations of the end user.

Designing requires an individual to be imaginative and creative, while having a substantial knowledge base of important factors that will aid or constrain the process. Decision-making needs to be supported by adequate and appropriate research and investigation. Designers must think "outside of the box" to develop innovative solutions, while thinking "in the box" to conform to requirements set by clients or research. (Design Technology Guide 2020)

Students cover a range of topics that includes:

Standard Level Topics			
1	Human factors and ergonomics		
2	Resource management and sustainable production		
3	Modelling		
4	Raw material to final product (Materials & Processes)		
5	Innovation and design		
6	Classic design		

HL C	HL Core Topics		
7	User-centered design		
8	Sustainability		
9	Innovation and markets		
10	Commercial production		

#### Assessment:

Assessment is broken down into exams (60% of the final grade) and internal assessment (40% of the final grade)

The assessment is broken down as follows:

Paper 1: Multiple Choice (SL 30% & HL 20%)

Paper 2: Short and extended answer questions (SL 30% / HL 20%)

Paper 3: Short and extended answer questions (HL Only 20%)

Internal Assessment Design Project (SL & HL 40%) Standard Level project focus on 4 Criteria;
 Higher Level has 6 Criteria.

#### **Internal Assessment**:

Internal assessment is a design project which is submitted as a portfolio. This involves:

- · Thorough research into a problem, situation and potential solutions.
- Design development involving demonstration of strong drawing skills, modelling, computer aided design skills, critical thinking and technical problem-solving.
- · In depth evaluation of prototypes based on a variety of testing methods.
- Modifications and adaptations of design ideas and prototypes for commercial production through computer aided design.

Due to the need for students to develop strong Computer Aided Design skills it is highly recommended that students have a personal laptop that can run Autodesk Fusion 360 software.

Design Technology at Diploma level builds on the skills, knowledge and understanding taught at IGCSE. Those students who have not studied Design Technology before are invited to complete a summer project and skill development tasks.

#### Sports Exercise and Health Science

As one of the science subjects in the IB Diploma Programme, sports, exercise and health science (SEHS) is primarily concerned with the scientific study of human physiology, biomechanics and psychology. Scientists working in these fields attempt to make sense of human physical and mental health and performance through a variety of approaches and techniques, controlled experimentation, and collaboration with other researchers. Students examine scientific knowledge claims in real-world context, fostering interest and curiosity and where relevant, address issues of international dimension and ethics in both individual and global contexts.

The course is organised under three main themes: exercise physiology and nutrition of the human body; biomechanics; sports psychology and motor learning. These themes are distinct, but also share many overlapping features; studying the similarities and connections between them is a central component of the course.

Integral to the student experience of the DP SEHS course is the learning that takes place through scientific inquiry, both in the classroom and in field work or the laboratory. With emphasis on experimental work, teachers provide students with opportunities to ask questions, design experiments, collect and analyse data, collaborate with peers, and reflect, evaluate and communicate their findings.

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. SEHS is a good preparation for courses in higher education related to sports, exercise science and health services industries.

#### Syllabus content (SL/HL)

- A. Exercise physiology and nutrition of the human body
  - Al. Communication
  - A2. Hydration and nutrition
  - A3. Response
- **B.Biomechanics** 
  - B1. Generating movement in the body
  - B2. Forces, motion and movement
  - B3. Injury
- C.Sports Psychology and Motor Learning
  - C1. Individual differences
  - C2. Motor Learning
  - C3. Motivation
  - C4. Stress and coping
  - C5. Psychological skills

#### Assessment:

#### Internal assessment: scientific investigation (10 hours)

The scientific investigation is an open-ended task in which the student gathers and analyses data to answer their own formulated research question. The outcome of the investigation will be assessed through a written report.

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External assessment (standard level 3 hours examination / higher level 4.25 hours examination)

- Paper 1A Multiple choice questions
- Paper 1B Data-based questions and questions on experimental work
- Paper 2 Short-answer and extended-response questions

# **GROUP 5: MATHEMATICS**

Students are required to study one subject from this group.

Mathematics plays an important role in the lives of all human beings. It shapes how we make sense of our world; determines many decisions we make and how we relate to others and our environments. As such, it is vital that students gain an awareness of, an insight into and a familiarity with, the world of mathematics. This is recognised in the structure of the IB DP and the compulsory nature of this subject. Mathematics can be studied in different ways and for different purposes. It is our aim, with all Mathematics DP courses, to address some of the important aspects of our subject area:

- · mathematics as a useful tool in making sense of our lives.
- · mathematics to develop logical and analytical thinking.
- beauty and elegance in mathematics.

#### Group 5 aims:

The aims of all Mathematics courses in group 5 are to enable students to:

- 1. enjoy mathematics, and develop an appreciation of the elegance and power of mathematics
- 2. develop an understanding of the principles and nature of mathematics
- 3. communicate clearly and confidently in a variety of contexts
- 4. develop logical, critical and creative thinking, and patience and persistence in problem-solving
- 5. employ and refine their powers of abstraction and generalisation
- 6. apply and transfer skills to alternative situations, to other areas of knowledge and to future developments
- 7. appreciate how developments in technology and mathematics have influenced each other
- 8. appreciate the moral, social and ethical implications arising from the work of mathematicians and the applications of mathematics
- 9. appreciate the international dimension in mathematics through an awareness of the universality of mathematics and its multicultural and historical perspectives
- 10. appreciate the contribution of mathematics to other disciplines, and as a particular "area of knowledge" in the TOK course.

#### General:

For both courses students are required to become familiar with and able to use Graphical Display Calculators (GDC), and to be familiar with a range of mathematical notation. It is a requirement of all Diploma Programme Mathematics that a GDC is used by the students.

The school strongly recommends that students investigate possible university courses they may be interested in and pay attention to their entrance criteria. Some universities require students to have studied IB DP Mathematics at a particular level for entry on to certain courses. Indeed, some countries have minimum Mathematics requirements for any university course, regardless of the subject to be studied. Courses which may not appear to have a heavy mathematics content may, in fact, have entrance requirements which include Mathematics. It is important for students to keep their options as open as possible and to look at a range of possibilities for future studies.

#### Mathematics: Analysis and Approaches

This course is intended for students who wish to pursue studies in mathematics at university or subjects that have a large mathematical content; it is for students who enjoy developing mathematical arguments, problem solving and exploring real and abstract applications, with and without technology.

Mathematics: Analysis and Approaches is a development from the former Mathematics HL and SL subjects.

#### Assessment:

SL students will complete two externally assessed written papers (80%) and the internal assessment (20%):

Paper 1 – 80 marks in 90 minutes, without a calculator (worth 40%)

Paper 2 – 80 marks in 90 minutes, with a calculator (worth 40%)

Internal Assessment (worth 20%)

HL students will complete three externally assessed written papers (80%) and the internal assessment (20%);

Paper 1 – 110 marks in 120 minutes, without a calculator (worth 30%)

Paper 2 – 110 marks in 120 minutes, with a calculator (worth 30%)

Paper 3 – 55 marks in 60 minutes, extended problem-solving questions (worth 20%)

Internal Assessment (worth 20%)

#### Mathematics: Applications and Interpretation

This course is intended for students who enjoy describing the real world and solving practical problems using mathematics; those who are interested in harnessing the power of technology alongside exploring mathematical models and for those who enjoy the more practical side of mathematics.

Both Mathematics: Analysis and Approaches and Application and Interpretation, will be offered at HL and SL according to demand, and within each subject the SL course will be a complete subset of the HL course.

Both subjects are designed to appeal to students with varying levels of ability and motivation in mathematics, developing their fluency in mathematics, their ability to think mathematically, to recognise mathematics around them and will enable them to use their mathematics in either abstract or contextual settings.

#### Assessment:

SL students will complete two externally assessed written papers (80%) and the internal assessment (20%);

Paper 1 – 80 marks in 90 minutes, short answer questions (worth 40%)

Paper 2 - 80 marks in 90 minutes, extended answer questions (worth 40%)

Internal Assessment (worth 20%)

HL students will complete three externally assessed written papers (80%) and the internal assessment (20%);

Paper 1 – 110 marks in 120 minutes, short answer questions (worth 30%)

Paper 2 -110 marks in 120 minutes, extended answer questions (worth 30%)

Paper 3 - 55 marks in 60 minutes, extended problem-solving questions (worth 20%)

Internal Assessment (worth 20%)

### **GROUP 6: THE ARTS**

The aims of all subjects in group six, the Arts, are to enable students to:

- · enjoy lifelong engagement with the arts;
- become informed, reflective and critical practitioners in the arts;
- · understand the dynamic and changing nature of the arts;
- · explore and value the diversity of the arts across time, place and cultures;
- · express ideas with confidence and competence;
- · develop perceptual and analytical skills.

#### Visual Art (HL/SL)

The course involves the learning and production of visual arts.

Students will develop skills to be creative, competent and well-balanced. Through the Visual Arts, our students will explore both local and international topics, opening their minds to their own environment and global issues.

#### Aims:

- 1. to produce artwork that is influenced by personal and cultural contexts
- 2. to become informed and critical observers and producers of visual culture and media
- 3. to develop skills, techniques and processes in order to communicate concepts and ideas.

The Core Syllabus is composed of 3 parts.

· Visual Art in Context (Theoretical)

The cycle of inquiry involves considering and comparing work from a variety of cultures and historical and social contexts. It involves analysing, interpreting, comparing, evaluating, using art vocabulary, reflection and understanding.

Visual Arts Processes (Artmaking)

This includes experimenting with techniques, different media and processes, developing a body of resolved and unresolved work, self-review and critique and documentation of this in a visual arts journal/process portfolio. A body of work that synethises skills, media and concepts must be produced.

Presenting and Communicating Visual Arts (Curatorial)

This third part has to do with understanding curatorial processes; what makes an effective exhibition and selecting and presenting the student's own work.

#### Assessment:

There is NO EXAM for Visual Art. All students complete the following components for their diploma over the course of the 2 years.

Part 1: The Comparative Study (20% Externally Assessed)

A visual and written investigation that analyses and compares at least three artworks by at least two different artists from different cultural contexts (HL students will also include a reflection of how this relates to their own work).

SI 10-15 screens

HL 10-15 screens & 3-5 screens comparing thier own work

Part 2: Process Portfolio (40% Externally Assessed)

The students' journey of art making: their engagement and sustained experimentation with different media and techniques, documentation of process, reflections on artists and artworks and the development of ideas.

GROUP 6: ARTS (cont.)

Students must show the ability to select and use materials appropriate to their intentions.

SL: 9-18 screens submitted.

HL: 13-25 screens submitted.

• Part 3: The Exhibition (40% Internally Assessed by Teacher)

Students present a cohesive body of work in the form of an exhibition in which they articulate their purpose and intention in written form.

Students reflect on this chosen body of work and provide a rationale for the decisions regarding the selection of certain pieces for exhibition.

SL: 4-7 artworks, exhibition text and a curatorial rationale of max 400 words.

HL: 8-11 artworks, exhibition text & curatorial rationale max 700 words.

#### Film

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

#### Core Syllabus Outline:

The film syllabus consists of the following core areas.

#### Reading film

SL and HL students will examine film as an art form, studying a broad range of film texts from a variety of cultural contexts and will analyse how film elements combine to create meaning.

#### Contextualising film

SL and HL students will explore the evolution of film across time, space and culture. Students will examine various areas of film focus in order to recognise the similarities and differences that exist between films from contrasting cultural contexts.

#### Exploring film production roles

SL and HL students will explore various film production roles through engagement with all phases of the filmmaking process in order to fulfil their own filmmaker intentions. Students will acquire, develop and apply skills through filmmaking exercises, experiments and completed films.

#### Collaboratively producing film (HL only)

HL students will focus on the collaborative aspects of filmmaking and experience working in core production teams in order to fulfil shared artistic intentions. They will work in chosen film production roles and contribute to all phases of the filmmaking process to collaboratively create original completed films.

#### Assessment:

There is NO EXAM for DP Film. All students complete the following components for their diploma over the course of the 2 years. This means the film course finishes before students go on study leave for their final examinations in other subjects, meaning there is one less subject to worry about.

#### The course components are:

#### 1. Textual analysis (External SL 30% HL 20%)

Students at SL and HL demonstrate their knowledge and understanding of how meaning is constructed in film. They do this through a written analysis of a prescribed film text based on a chosen extract (lasting no more than five minutes) from that film. Students consider the cultural context of the film and a variety of film elements.

GROUP 6: ARTS (cont.)

Students submit a textual analysis (1,750 words maximum) and a list of all sources used.

#### 2. Comparative study (External SL 30% HL 20%)

Students at SL and HL carry out research into a chosen area of film focus, identifying and comparing two films from within that area and presenting their discoveries as a recorded multimedia comparative study.

Students submit the following:

- · a recorded multimedia comparative study (10 minutes maximum).
- · a list of all sources used.

#### 3. Film portfolio (Internal SL 40% HL 25%)

Students at SL and HL undertake a variety of film-making exercises in three film production roles, led by clearly defined filmmaker intentions. They acquire and develop practical skills and techniques through participation in film exercises, experiments and the creation of at least one completed film. Students submit the following:

- portfolio pages (9 pages maximum: 3 pages maximum per film production role) and a list of all sources used
- a film reel (9 minutes maximum: 3 minutes maximum per film production role, including one completed film).

#### 4. Collaborative film project (Internal HL only 35%)

Bringing together all they have encountered during the film course, students at HL work collaboratively in a core production team to plan and create an original completed film.

Students submit the following:

- · a completed film (7 minutes maximum)
- a project report (2,000 words maximum) and a list of all sources used.

# THE DIPLOMA HEXAGON

#### Music

The Diploma Programme Music course has been designed to prepare the 21st century music student for a world in which global musical cultures and industries are rapidly changing. Student creativity is harnessed through practical, informed and purposeful explorations of diverse musical forms, practices and contexts.

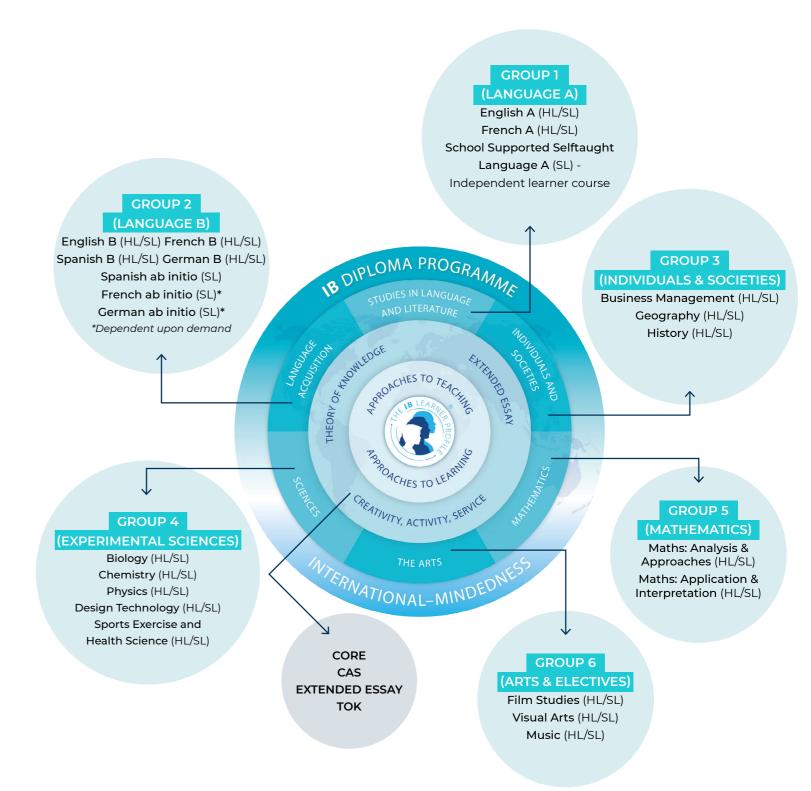
Assessment tasks are presented as coursework, balanced between internal and external assessment. There are three common components at SL and HL, with a discrete HL extension component which invites students to work within the parameters of real-life music industry practices.

#### How are music students assessed?

- An exploration portfolio: Written work demonstrating engagement with, and understanding of, diverse musical material, along with practical exercises in creating and performing
- An experimentation report: Written work in the form of a rationale and commentary that supports practical musical evidence of experimentation in creating and performing
- A musical presentation: Finished works in creating and performing, supported by programme notes.
- A collaborative project (HL only): A continuous multimedia presentation documenting a real-life
  project, containing evidence of the project proposal, the process and evaluation, and the realised
  project, or curated selections of it.

Syllabus Component	External / Internal	SL	HL
Exploring music in context – portfolio submission			
Written work demonstrating engagement with diverse musical material and practical exercises in creating and performing.	External	30%	20%
Experimenting with music			
A written experimentation report with practical musical evidence of the process in creating and performing.	Internal	30%	20%
Presenting music			
A submission of programme notes, a composition and either a solo or ensemble performance.	External	40%	30%
The contemporary music-maker			
A submission of a continuous multimedia presentation documenting their real-life project. This is to include, a project proposal, the process, evaluation and the realized project itself.	Internal		30%

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