IB DP

INTERNATIONAL BACCALAUREATE DIPLOMA PROGRAMME

BERLIN BRANDENBURG INTERNATIONAL SCHOOL

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BBIS MISSION AND GUIDING STATEMENTS

MISSION

To inspire everyone in our learning community to be responsible, compassionate global citizens who make a difference through inclusion, innovation and action.

This can be summarised as:

inclusive
innovative
active

GUIDING STATEMENTS

International Education and Intercultural Learning
At BBIS, we aim to make a positive impact on a local and global scale. We believe we can achieve this by actively developing global citizenship. To this end, our attitudes, values and principles are informed by and support:

- The UN Declaration of Human Rights 1949
- The UN Convention on the Rights of the Child (Ratified in Germany 1992)
- The UN Sustainable Development Goals 2030
- The CIS Code of Ethics
- The IB Mission statement, outlining the aim of creating a more peaceful world through intercultural understanding and respect
- The IB Learner Profile

Principles we maintain are:

- Respect for our differences and our diversity as a source of immaterial wealth in our community
- Curiosity to understand our interconnectedness through local, national and international perspectives on global issues
- Action to design and engage in authentic learning experiences which have an impact

Global Citizenship
Global citizens are knowledgeable about the world. A global citizen is confident about their own identity and culture, and is motivated to learn about and understand the identities, cultures and languages of others. They are open-minded and welcome multiple perspectives. Global citizens have an understanding of global sustainability issues and challenges. They cooperate with others, and use their critical thinking, problem-solving and communication skills to make a positive difference in their communities and in the world around them.

BBIS is committed to actively developing global citizenship through the following aspects:

Ethics – research about, discussion of, and action related to issues of principle of personal, local, and global importance

Diversity – the understanding of and respect for the similarities and differences of a range of individuals and peoples, in order to create an inclusive environment that strives for equity, practices anti-racism, and seeks justice

Global Issues – the understanding of multiple perspectives of local and global events and issues

Communication – the development of fluency in multiple languages, including mother tongues, used to communicate within and across cultures

Service – the development of the understandings, skills and dispositions to serve the local and global community through engagement in meaningful service learning

Leadership – the acquisition and refinement of the skills of leading and following within different cultural contexts

Sustainable Lifestyle – a personal commitment to a lifestyle which supports local and global sustainability displayed through example and advocacy

VALUES

BBIS Berlin Brandenburg International School's enduring values are Pioneering, Reflective, Excellent and Caring.

Pioneering
Pioneering students are courageous, determined and resilient. They explore the unfamiliar. They question assumptions. They seek creative solutions to the challenges they discover. They collaborate with others to achieve personal and shared goals. They put ideas into action.

Reflective
Reflective students are thoughtful, open-minded and considerate. They evaluate feedback and evidence of learning, recognising their successes and setting goals for further development. They inquire into their approaches to learning, identifying conditions and strategies that help them learn well. They learn from mistakes by analysing and attributing causes for failure. They develop growth mindsets. They take responsibility for their own learning.

Excellent
Excellent students have high expectations of themselves. They are passionate about learning, embrace opportunities, and take steps to improve themselves. They are driven to be their best selves. They take learning seriously through high levels of engagement, and commitment to self-development. Excellent students welcome and respond to feedback.

Caring
Caring students are empathic, and principled. They take responsibility for self, others and the environment around them. They are committed to service. They learn strategies to overcome impulsiveness and manage their emotions. They build and develop relationships. They manage and resolve conflict. They act as responsible digital citizens. They consider how they can share their skills to help their peers. Caring students take a stand for diversity, equity, inclusion and justice.

DEFINITION OF LEARNING

Learning is a lifelong and active process of inquiry in which the learner constructs new meaning about themselves and the world around them by connecting prior knowledge with new information and experiences. Learners' knowledge, conceptual understanding, skills and attitudes develop and deepen over time. Learning is demonstrated when learners apply, transfer, and adapt their learning to new situations and problems in original ways.

LEARNING PRINCIPLES

High quality learning happens best when …

... learners feel safe in a positive, supportive and nurturing learning environment where their ideas are valued and respected.

... learning is individualised, using learners' prior knowledge, interests, learning strengths, linguistic and cultural backgrounds and identities.

... learners have the right balance of challenge and comfort, knowing that success is attainable through perseverance.

... learners receive specific, frequent and timely feedback through a variety of assessments connected to stated learning objectives and outcomes, and use that feedback to practice, retry, rethink, and revise.

... learning is a social activity that allows learners to collaborate, communicate their thinking, and understand and connect ideas from diverse perspectives.

... learners reflect purposefully on their learning, evaluating the effectiveness of their learning and developing an understanding of how they learn best.

... learning is embedded in authentic, real-world contexts, allowing students to achieve personal and shared goals as they discover innovative ways to solve local and global challenges through the inquiry learning cycle.

IB LEARNER PROFILE

BBIS is an IB World School. As IB learners we strive to be:

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

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

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

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

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

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

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

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

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

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

THE IB DIPLOMA PROGRAMME MODEL

All information in this handbook refers to the Syllabi and Assessment criteria issued for each subject and component by the International Baccalaureate (IB) organization. These requirements are binding for all teachers at BBIS.

The new visual for the DP model is circular illustrating the alignment of structure and terminology across all four programmes – the Primary Years Programme (PYP), the Middle Years Programme (MYP), and the Diploma Programme (DP) – and the International Baccalaureate's (IB's) seamless, holistic and integrated continuum of education for children aged 3–19 years old.

International-mindedness encircles the world map, underpinning each programme and providing a solid foundation for global contexts. The number of subject groups in the Diploma is six, challenging students to acquire a significant breadth and depth of knowledge and conceptual understanding.

The DP Core comprising the theory of knowledge, extended essay and creativity, activity, service (CAS) continues to challenge perceptions, develop critical thinking skills, drive interdisciplinary investigation and enhance students' personal and interpersonal development through experiential learning and journeys of self-discovery. Approaches to teaching and Approaches to learning support the learner profile in the inner circle, demonstrating the IB's explicit commitment to pedagogical excellence and desire to inspire a life-long quest for learning.

THE INTERNATIONAL BACCALAUREATE DIPLOMA

As the most experienced and successful IB school in the Berlin region we are pleased to offer our senior students the chance to follow the curriculum of the International Baccalaureate Diploma. Most students complete the whole Diploma, but students for whom this is not suitable may follow the BBIS High School Diploma.

In addition to these, all of our graduates are eligible for the award of The Berlin Brandenburg International School High School Diploma.

The International Baccalaureate originated in the mid-1960s at the International School of Geneva. Faced with the problem of preparing students of United Nations families for universities in their home country, the school decided to launch the concept of a diploma that would meet requirements for university entrance in as many countries as possible. Throughout the 60s, the curriculum evolved with the result that the IB head office was established in Geneva in 1967. In 1976 the International Baccalaureate Office (IBO) in Geneva was recognised as a permanent institution accredited to grant an international school-leaving examination.

Today, the IB Diploma Programme is offered by thousands of schools all over the world.

DIPLOMA REQUIREMENTS

The IB diploma requirements are based on a set of syllabi that set forth stringent objectives in courses and examinations. The general pedagogical premise is that upper secondary-level education should encompass the development of all main powers of the mind through which people interpret, modify, and enjoy their environment.

The curriculum demands proficiency in both language and mathematics, the two most important tools of communication and analysis, and familiarity with at least one subject each in the areas of the study of human behaviour and scientific inquiry. To stress the unity of all knowledge, all IB students participate in the 'Theory of Knowledge' course.

Diverse student interests are respected through a broad range of possible course offerings. The option of choosing to study an IB subject at the "Higher Level (HL taught 240 h)" or "Standard Level (SL taught 150 h)" offers the student the possibility of a limited specialisation.

The diploma is a two-year programme, usually completed in Grades 11 and 12.

WHAT IS NEEDED TO COMPLETE THE IB DIPLOMA? *

A minimum of 90% attendance is required in each subject for each year of the diploma.

1. Complete 6 IB courses, 3 at Higher Level (6 periods a week), 3 at Standard Level (4 periods a week)

2. Complete one course from each group listed below:

- Studies in Language & Literature (generally the student's best academic language)
- Language Acquisition
- Individuals and Society
- Sciences
- Mathematics
- The Arts (or another subject from the groups 1–4)

3. Complete the Theory of Knowledge (TOK) course

4. Submit an Extended Essay, approximately 4,000 words

5. Actively and consistently engage in the Creativity, Activity and Service programme (CAS)

* For special requirements see University Recognition.

INTERNATIONAL BACCALAUREATE DIPLOMA SUBJECTS OFFERED IN 2025-2026

Group 1: Studies in Language and Literature
- English Literature HL/SL
- English Language & Literature HL/SL
- German Language & Literature HL/SL
- Self-taught Literature (SL only)

A language not offered as a taught language at BBIS may be studied as a self-taught language at SL only. Possible in Group 1, 2 or 6

Group 2: Language Acquisition
- English B HL (foreign language)
- German B HL/SL (foreign language)
- French B HL/SL (foreign language)
- Spanish B HL/SL (foreign language)
- German ab initio SL (beginners)
- Spanish ab Initio (beginners)

Group 3: Individuals and Societies
- Business Management HL/SL
- Economics HL/SL
- Geography HL/SL
- History HL/SL
- Global politics HL/SL
- Psychology HL/SL

Group 4: Sciences
- Biology HL/SL
- Chemistry HL/SL
- Physics HL/SL
- Design Technology HL/SL
- Sport, exercise and health science HL/SL
- Environmental systems and societies HL/SL
- Computer Science HL/SL

Group 5: Mathematics
- Analysis & Approaches HL/SL
- Applications & Interpretations HL/SL

Group 6: The Arts
- Music HL/SL
- Visual Arts HL/SL
- Film HL/SL

According to scheduling restraints not all combinations of subjects and/or levels might be possible.

ASSESSMENT IN THE DIPLOMA PROGRAMME

Assessment is an integral part of teaching and learning. Its most important aim is to support student learning based on the IB curricular goals. As assessment at BBIS is criterion-based, it is a tool to evaluate students' achievement in relation to pre-determined levels of attainment, and not in relation to the work of other students.

At BBIS we believe that assessment:

- takes into account the individual student's current knowledge and experiences.
- uses strategies that are developmentally appropriate for the student.
- uses agreed systems for assessing, documenting and reporting.
- should maintain open communication as part of a collaborative approach to assessment that includes teachers, students and parents/guardians.
- nurtures the attributes of the IB Learner Profile, as well as encouraging persistence, effort and a striving for personal excellence.

For both external and internal assessments there are a set of objectives for each subject to match the assessment criteria. Every course has a different a number of assessment criteria, e.g. language (receptive, productive, interactive, etc.) Economics (terminology, application, analysis, evaluation, etc.), Mathematics (communication, mathematical presentations, personal engagement, reflection, use of mathematics, etc.)

Courses may have different numerical mark bands for the criteria, i.e. 1–8, or 1–10. Even within one subject the criteria may have different numerical bands, i.e. criterion A 1–8, criterion B 1–15. (Information on Academic integrity can be found in the Secondary School Handbook)

In the Diploma Programme students will be assessed on a regular basis. The academic achievement grade at the end of each term is the student's highest consistent level of achievement. This is not necessarily a mathematical average, but rather reflects the level at which the student performs most of the time on summative assessments, with formative assessments also being taken into consideration. Students also receive a grade for their mock exams at the end of their first three semesters. Students also receive a grade for their end of semester exams in Grade 11 and their mock exams in January of Grade 12. The final exams are graded externally and the results are published online via IBO log in confidentially for each individual student.

LATE SUBMISSION OF WORK

At the beginning of each school year all students in Grades 11 and 12 receive detailed information concerning BBIS internal deadlines to upload drafts or finals on to ManageBac. These internal deadlines are mandatory for all students.

If students do not submit a summative assessment on the due date, the work will not be marked by the teacher. As late work will not be assessed, it cannot be used to determine the student's level of achievement at the end of term. A failure to submit a piece of work will affect the final mark insofar as that the student will not have demonstrated proficiency in all of the competencies assessed in each criterion.

Student(s) affected by adverse circumstances, may receive an extension of a deadline for internally assessed work granted by the teacher at his or her discretion. Extension of a deadline for externally assessed work cannot be granted.

REPORTING ON LEARNING

Student progress and achievement is reported on over the school year in a variety of ways, which may include:
- parent-teacher conferences
- progress indicators and reports
- written reports
- portfolios
- on-going feedback
- access to ManageBac

THEORY OF KNOWLEDGE (TOK)

A required inter-disciplinary course intended to stimulate critical reflection upon the knowledge and experience gained inside and outside the classroom. TOK challenges students to question the basis of knowledge, to be aware of subjective and ideological biases, and to develop a personal mode of thought based on analysis of evidence expressed in rational argument. TOK seeks to develop a coherent approach to learning which transcends and unifies the academic subjects and encourages appreciation of other cultural perspectives.

Grading system
A=Excellent, B=Good, C=Satisfactory, D=Mediocre, E=Elementary.

EXTENDED ESSAY

Another required component of the diploma programme, candidates must undertake original research and write an extended essay of some 4,000 words. The project offers the opportunity to investigate a topic of special interest and acquaints students with the kind of independent research and writing skills expected at university. Students are guided by teachers who are supervisors. Students are required to produce all notes and drafts of their essay when requested to do so.

Grading system
A=Excellent, B=Good, C=Satisfactory, D=Mediocre, E=Elementary.

SUBJECT CHANGES

All IB DP subjects are taught as two-year courses. Changes to subject choices can only be made in the first few weeks of the programme. Students must complete a subject change request form and have it approved by their parent, teacher and coordinator.

COLLABOARTIVE SCIENCE PROJECT (CSP)

An additional requirement of the IB DP is the compulsory completion of the CSP. The CSP is a collaborative and multidisciplinary activity, which encourages students to appreciate the environmental, social and ethical implications of science.

THE VECTORS UNIT

BBIS has signed an agreement with the IBO which will allow IB Mathematics SL students' IB Diplomas to meet the KMK's standard for university recognition and access to STEM courses at German universities. This is a benefit for our graduating students and their access to all subject areas of higher education in Germany from May 2021 onwards. The requirement for this recognition is that all IB Mathematics SL students take an additional 16-hour-module on vectors, with curriculum guidance provided by the IB. All IB mathematics SL students are required to attend.

ACE – ACADEMIC CENTRE OF EXCELLENCE

The BBIS Academic Centre for Excellence (ACE) helps Grade 11 and 12 students develop to their fullest potential as they complete their chosen study pathway.

ACE coaches work closely with classroom teachers to deliver support with each student's needs in mind. This may involve helping students to plan assessments; develop academic writing skills; understand course content and core requirements such as the Extended Essay; prepare for tests and exams; create study schedules; fill specific skill gaps; maintain concentration and motivation, and find extension materials.

All Grade 11 and 12 students are encouraged to engage with the Academic Centre for Excellence.

While some students may be referred by their teachers or parents, most approach our academic coaches in-person or via e-mail at *secondary.academiccoaching@bbis.de*.

Support available includes:

- 1-on-1 academic coaching during study periods. Coaching sessions are available by appointment and on a drop-in basis. The sessions are planned and delivered with the unique needs of each student in mind.
- Group workshops to support the development of academic writing skills, study skills, exam skills, and assessment-specific skills
- Support in setting up effective peer study groups
- Visiting and supporting classes
- Access to ACE Academic Support Materials

CREATIVITY, ACTIVITY, SERVICE (CAS)

A fundamental component of the diploma programme, the CAS requirement takes seriously students' life away from scholastic commitments, providing a counter-balance to the academic demands of this very challenging programme.

Participation in theatre productions, sports and community service activities encourages young people to share their energies and special talents while developing awareness, concern with the world around them and the ability to work cooperatively with others. The goal of educating the whole person and fostering a more compassionate global population comes alive in an immediate way when students reach beyond themselves and their books.

Over the course of the two-year programme, all students are required to both participate in and initiate their own creative, physical activity and service based experiences. Additionally, students are required to maintain thorough documentation of and reflections on their experiences, including their CAS Project (a long term project driven by their own initiative).

THE SEVEN CAS LEARNING OUTCOMES

Throughout the 18 months of the diploma programme, students are expected to regularly ...

1. Identify their own strengths and develop areas for growth.
2. Demonstrate that challenges have been undertaken, developing new skills in the process.
3. Demonstrate how to initiate and plan a CAS experience.
4. Show commitment to and perseverance in CAS experiences.
5. Demonstrate the skills and recognize the benefits of working collaboratively.
6. Demonstrate engagement with issues of global significance.
7. Recognize and consider the ethics of choices and actions.

GRADING SYSTEM

For all other courses examinations are awarded grades on a seven-point scale:

GRADE	
7	Excellent
6	Very Good
5	Good
4	Satisfactory
3	Mediocre
2	Poor
1	Very Poor

To earn the IB Diploma, a candidate must normally have at least a total of 24 points. Best total for all subjects: 42 points.

Three additional points can be obtained for the TOK and EE according to the following table:

TOK/EE					
A	3	3	2	2	failing
B	3	2	2	1	failing
C	2	2	1	0	failing
D	2	1	0	0	failing
E	failing	failing	failing	failing	failing

The Diploma will not be awarded when:

- CAS requirements have not been met
- Candidate's total points are fewer than 24
- An "N" has been given for TOK, EE or another subject
- A grade "E" has been awarded for the EE or TOK
- There is a grade 1 awarded in a subject/level.
- Grade 2 has been awarded three or more times (HL or SL).
- Grade 3 or below has been awarded four or more times (HL or SL).
- Candidate has gained fewer than 12 points on HL.
- Candidate has gained fewer than 9 points on SL.

Any student who does not complete the requirements of the courses in CAS, Theory of Knowledge in a satisfactory manner, or fails to complete an extended essay, will not be eligible for the award of the diploma.

A student who does not complete the full diploma may be awarded certificates in individual subjects.

UNIVERSITY RECOGNITION

Most universities accept students on the basis of their IB Diploma qualifications. Recognising the high standards of the IB Diploma programme, admissions officers in many institutions look favourably at students who are enrolled in IB courses.

However, for entrance into universities in some countries (including Germany) there are certain course requirements. Students are advised to check theses requirements for details under

https://www.ibo.org/university-admission/recognition-of-the-ib-diplma-by-countries-and-universities/country-recognition-statements/

before making their subject choices at the end of grade 10 or before the beginning of grade 11 for students new to BBIS can view and update their institution's IB recognition policy at: **www.ibo.org/informationfor/universitiesandgovernments/universities/** before making their subject choices at the end of grade 10 or before the beginning of grade 11 for students new to BBIS.

PLANNING A COURSE OF STUDY

Students should begin by consulting the information in this booklet and by considering their own strengths and interests. They should, however, also take into consideration their future study and career plans as certain selections or omissions from the programme will limit study choices in some university systems. Therefore, before they plan, students should become familiar with the requirements and expectations of the universities in the country or countries to which they intend to apply. They must consult with the College Counselor, the IB Coordinator, their teachers and, of course, their parents.

For many students, once individual subjects have been chosen, the greatest difficulty is in deciding whether to study a subject at Standard or Higher Level. In some subjects HL and SL vary substantially in degree of difficulty and type of material covered; in other subjects, the levels differ primarily in the amount of work required.

In making these decisions, students need to balance carefully their interests and abilities with university requirements or expectation. Students (and their parents) should attend the IB Information Evenings (see BBIS calendar) and consider the subject teachers' recommendations. Below are several examples of programmes for IB Diploma Candidates. These should not be seen as guidelines or as models for students planning their programmes. They are offered only as illustrations of the range of possibilities.

1. A student whose only language is English, interested in Art and Humanities

- HL English language & literature, History, Visual Arts
- SL German ab initio, Math Studies, Biology

2. A student whose best language is Japanese, with particular interest in Mathematics and Science

- HL Mathematics, Physics, Chemistry
- SL Japanese (self-taught), Geography, English B

3. A student with native language German who has always studied in English

- HL German language & literature, Mathematics, History
- SL English Language & Literature, Physics, Music

AWARD OF THE INTERNATIONAL BACCALAUREATE DIPLOMA

The International Baccalaureate Diploma will be awarded by the International Baccalaureate Organization upon successful completion of its requirements. Candidates' results will be issued on the World Wide Web on 6 July each year, and the diplomas and certificates will be mailed to school in late August. Every student who will have left Germany by then must leave a forwarding address with the Secondary School secretary.

In 1997 the first 3 students obtained a Diploma at BBIS. Since then the number of students who have taken the chance to follow the challenging Diploma programme has risen continually and they received excellent results. Although we always have students with top results (40-45 points), we also celebrate the success of those students who invested an incredible amount of effort, but received lower results.

GROUP 1 – LANGUAGE AND LITERATURE

To fulfil the requirements of the IB Diploma Programme (DP), students must study one of the three courses in the studies in language and literature group.

Language A: language and literature
Students will focus on a range of literary and non-literary texts and explore the crucial role language plays in communication

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: literature self-taught
The requirements for the self-taught languages (all languages except English and German) are similar to the ones listed under Language A: literature. The students have to compile their own book list according to the syllabus of the SL Literature course. In order to do so, there is a "Prescribed reading list" available for each language.

A "Language A" teacher will be appointed as supervisor for all self-taught students. This teacher collaborates with the coordinator and works with the students in order to:

- guide students in developing a booklist
- approve students' booklist once completed, ensuring that it meets course requirements
- help students to set a timeline of study
- help students to choose which other language A classes they could attend to further their studies
- discuss the assessment components and the assessment criteria for the course
- meet with students individually about their progress at least once a month
- meet all self-taught students as a group weekly at a fixed time in their school timetable
- administer the individual oral component
- connect with students first and best language tutor
- be a resource for students
- give students access to past papers and exemplars

Self-taught candidates are exclusively assessed by external examiners. Attendance in all meetings with the supervisor is mandatory.

LITERATURE AND LITERATURE SELF-TAUGHT

COURSE DESCRIPTION AND AIMS

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

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

- engage with a range of texts, in a variety of media and forms, from different periods, styles and cultures
- develop skills in listening, speaking, reading, writing, viewing, presenting and performing
- develop skills in interpretation, analysis and evaluation
- develop sensitivity to the formal and aesthetic qualities of texts and an appreciation of how they contribute to diverse responses and open up multiple meanings
- develop an understanding of relationships between texts and a variety of perspectives, cultural contexts, and local and global issues, and an appreciation of how they contribute to diverse responses and open up multiple meanings
- develop an understanding of the relationships between studies in language and literature and other disciplines
- communicate and collaborate in a confident and creative way
- foster a lifelong interest in and enjoyment of language and literature.

CURRICULUM MODEL OVERVIEW

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

ASSESSMENT MODEL

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

1. Know, understand and interpret:
- a range of texts, works and/or performances, and their meanings and implications
- contexts in which texts are written and/or received
- elements of literary, stylistic, rhetorical, visual and/or performance craft
- features of particular text types and literary forms.

2. Analyse and evaluate:
- ways in which the use of language creates meaning
- uses and effects of literary, stylistic, rhetorical, visual or theatrical techniques
- relationships among different texts
- ways in which texts may offer perspectives on human concerns.

3. Communicate:
- ideas in clear, logical and persuasive ways
- in a range of styles, registers and for a variety of purposes and situations
- (for literature and performance only) ideas, emotion, character and atmosphere through performance.

ASSESSMENT AT A GLANCE

Type of assessment	**Format of assessment**	**Time (hours)**		**Weighting of final grade (%)**	
		SL	**HL**	**SL**	**HL**
External		**3**	**4**	**70**	**80**
Paper 1: Guided literary analysis	Guided analysis of unseen literary passage/ passages from different text types.	1.25	2.25	35	35
Paper 2: Comparative essay	Comparative essay based on two literary works written in response to a choice of one out of four questions.	1.75	1.75	35	25
HL essay	Written coursework component: 1,200–1,500 word essay on one work studied.				20
Internal				**30**	**20**
Individual oral	Prepared oral response on the way that one work originally written in the language studied and one work studied in translation have approached a common global issue.			30	20

LANGUAGE AND LITERATURE

COURSE DESCRIPTION AND AIMS

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

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

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

- engage with a range of texts, in a variety of media and forms, from different periods, styles and cultures
- develop skills in listening, speaking, reading, writing, viewing, presenting and performing
- develop skills in interpretation, analysis and evaluation
- develop sensitivity to the formal and aesthetic qualities of texts and an appreciation of how they contribute to diverse responses and open up multiple meanings
- develop an understanding of relationships between texts and a variety of perspectives, cultural contexts, and local and global issues, and an appreciation of how they contribute to diverse responses and open up multiple meanings
- develop an understanding of the relationships between studies in language and literature and other disciplines
- communicate and collaborate in a confident and creative way
- foster a lifelong interest in and enjoyment of language and literature.

CURRICULUM MODEL OVERVIEW

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

ASSESSMENT MODEL

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

1. Know, understand and interpret:
- a range of texts, works and/or performances, and their meanings and implications
- contexts in which texts are written and/or received
- elements of literary, stylistic, rhetorical, visual and/or performance craft
- features of particular text types and literary forms.

2. Analyse and evaluate:
- ways in which the use of language creates meaning
- uses and effects of literary, stylistic, rhetorical, visual or theatrical techniques
- relationships among different texts
- ways in which texts may offer perspectives on human concerns.

3. Communicate:
- ideas in clear, logical and persuasive ways
- in a range of styles, registers and for a variety of purposes and situations
- (for literature and performance only) ideas, emotion, character and atmosphere through performance.

ASSESSMENT AT A GLANCE

Type of assessment	Format of assessment	Time (hours)		Weighting of final grade (%)	
		SL	**HL**	**SL**	**HL**
External		**3**	**4**	**70**	**80**
Paper 1: Guided textual analysis	Guided analysis of unseen non-literary passage/passages from different text types.	1.25	2.25	35	35
Paper 2: Comparative essay	Comparative essay based on two literary works written in response to a choice of one out of four questions.	1.75	1.75	35	25
HL essay	Written coursework component: 1,200–1,500 word essay on one literary work or a non-literary body of work studied.				20
Internal				**30**	**20**
Individual oral	Prepared oral response on the way that one literary work and one non-literary body of work studied have approached a common global issue.			30	20

GROUP 2 – LANGUAGE ACQUISITION

NATURE OF THE SUBJECT

Language acquisition consists of two modern language courses: "Language ab initio" and "Language B"

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

The two modern language courses "Language ab initio" and "Language B" develop students' linguistic abilities through the development of receptive, productive and interactive skills.

ENGAGING WITH SENSITIVE TOPICS

All language acquisition courses will provide the opportunity to engage with a broad range of texts, stimuli and scenarios that address topics of personal, local or national and global significance. Such work may well raise issues that challenge learners intellectually, personally and culturally. Engagement with these topics, whether intentional or incidental, can be opportunities for development of IB learner profile traits. Teachers should help learners to approach such materials in a sensitive, responsible and reflective manner, bearing in mind the IB's mission and its commitment to international-mindedness and intercultural respect within the context of the course. Consideration should also be given to the personal and social values of others.

As part of the collective consideration of the school, language acquisition students must be supported in maintaining an ethical perspective during their course. Schools must make every reasonable effort to encourage students to respond appropriately (without seeking to offend), to promote respect for their peers and to consider the environment in all their actions.

In selecting texts and preparing materials and tasks for language acquisition courses, teachers are reminded to consider the cultural environment and the make-up of the student body, in order to act as role models in demonstrating an awareness of, and sensitivity to, deeply held personal and community values.

PRIOR LEARNING

Students enter language acquisition courses with varying degrees of exposure to the target language(s).

It is, therefore, important that students are placed into a course that is most suited to their language development needs and that will provide them with an appropriate academic challenge.

LANGUAGE ACQUISITION AIMS

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

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

LANGUAGE AB INITIO

COURSE DESCRIPTION AND AIMS

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

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

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

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

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

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

CURRICULUM MODEL OVERVIEW

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

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

Communication is evidenced through receptive, productive and interactive skills.

ASSESSMENT MODEL

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

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

ASSESSMENT AT A GLANCE

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

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

CONTENT OUTLINE

Theme	Guiding principle	Prescribed topics	Possible questions
Identities	Explore the nature of the self and how we express who we are.	• Personal attributes • Personal relationships • Eating and drinking • Physical well-being	• How do I present myself to others? • How do I express my identity? • How do I achieve a balanced and healthy lifestyle?
Experiences	Explore and tell the stories of the events, experiences and journeys that shape our lives.	• Daily routine • Leisure • Holidays • Festivals and celebrations	• How does travel broaden our horizons? • How would my life be different if I lived in another culture? • What are the challenges of being a teenager? • How are customs and traditions similar or different across cultures?
Human ingenuity	Explore the ways in which human creativity and innovation affect our world.	• Transport • Entertainment • Media • Technology	• How do science and technology affect my life? • How do I use media in my daily life? • What can I learn about a culture through entertainment?
Social organization	Explore the ways in which groups of people organize themselves, or are organized, through common systems or interests.	• Neighbourhood • Education • The workplace • Social issues	• What purpose do rules and regulations have in society? • What is my role in society? • What options do I have in the world of work?
Sharing the planet	Explore the challenges and opportunities faced by individuals and communities in the modern world.	• Climate • Physical geography • The environment • Global issues	• What can I do to help the environment? • How do my surroundings affect the way I live? • What can I do to make the world a better place?

LANGUAGE B

COURSE DESCRIPTION AND AIMS

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

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

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

At HL the study of two literary works originally written in the target language is required and students are expected to extend the range and complexity of the language they use and understand in order to communicate. Students continue to develop their knowledge of vocabulary and grammar, as well as their conceptual understanding of how language works, in order to construct, analyse and evaluate arguments on a variety of topics relating to course content and the target language culture(s).

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

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

CURRICULUM MODEL OVERVIEW

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

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

Communication is evidenced through receptive, productive and interactive skills.

ASSESSMENT MODEL

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

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

ASSESSMENT AT A GLANCE

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

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

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

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

CONTENT OUTLINE

Theme	**Guiding principle**	**Optional recommended topics**	**Possible questions**
Identities	Explore the nature of the self and how we express who we are.	• Lifestyles • Health and well-being • Beliefs and values • Subcultures • Language and identity	• What constitutes an identity? • How do language and culture contribute to form our identity?
Experiences	Explore and tell the stories of the events, experiences and journeys that shape our lives.	• Leisure activities • Holidays and travel • Life stories • Rites of passage • Customs and traditions • Migration	• How does our past shape our present and our future? • How and why do different cultures mark important moments in life?
Human ingenuity	Explore the ways in which human creativity and innovation affect our world.	• Entertainment • Artistic expressions • Communication and media • Technology • Scientific innovation	• What can we learn about a culture through its artistic expression? • How do the media change the way we relate to each other?
Social organization	Explore the ways in which groups of people organize themselves, or are organized, through common systems or interests.	• Social relationships • Community • Social engagement • Education • The working world • Law and order	• What is the individual's role in the community? • What role do rules and regulations play in the formation of a society?
Sharing the planet	Explore the challenges and opportunities faced by individuals and communities in the modern world.	• The environment • Human rights • Peace and conflict • Equality • Globalization • Ethics • Urban and rural environment	• What environmental and social issues present challenges to the world, and how can these challenges be overcome? • What challenges and benefits does globalization bring?

GROUP 3 – INDIVIDUALS AND SOCIETIES

AIMS

The aims of all subjects in group 3 are to:

- encourage the systematic and critical study of: human experience and behaviour; physical, economic and social environments; and the history and development of social and cultural institutions
- 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
- enable the student to collect, describe and analyse data used in studies of society, to test hypotheses, and to interpret complex data and source material
- promote the appreciation of the way in which learning is relevant both to the culture in which the student lives, and the culture of other societies
- develop an awareness in the student that human attitudes and beliefs are widely diverse and that the study of society requires an appreciation of such diversity
- enable the student to recognize that the content and methodologies of the subjects in group 3 are contestable and that their study requires the toleration of uncertainty.

BUSINESS MANAGEMENT HIGHER LEVEL

COURSE DESCRIPTION AND AIMS

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

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

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

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

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

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

CURRICULUM MODEL OVERVIEW

Component	Recommended teaching hours
Unit 1: Introduction to business management 1.1 What is a business? 1.2 Types of business entities 1.3 Business objectives 1.4 Stakeholders 1.5 Growth and evolution 1.6 Multinational companies (MNCs)	20
Unit 2: Human resource management 2.1 Introduction to human resource management 2.2 Organizational structure 2.3 Leadership and management 2.4 Motivation and demotivation 2.5 Organizational (corporate) culture (HL only) 2.6 Communication 2.7 Industrial/employeerelations (HL only)	35
Unit 3: Finance and accounts 3.1 Introduction to finance 3.2 Sources of finance 3.3 Costs and revenues 3.4 Final accounts 3.5 Profitability and liquidity ratio analysis 3.6 Debt/equity ratio analysis (HL only) 3.7 Cashflow 3.8 Investment appraisal 3.9 Budgets (HL only)	45

CURRICULUM MODEL OVERVIEW

Component	Recommended teaching hours
Unit 4: Marketing 4.1 Introduction to marketing 4.2 Marketing planning 4.3 Sales forecasting (HL only) 4.4 Market research 4.5 The seven Ps of the marketing mix 4.6 International marketing (HL only)	35
Unit 5: Operations management 5.1 Introduction to operations management 5.2 Operations methods 5.3 Lean production and quality management (HL only) 5.4 Location 5.5 Break-even analysis 5.6 Production planning (HL only) 5.7 Crisis management and contingency planning (HL only) 5.8 Research and development (HL only) 5.9 Management information systems (HL only)	45
Business management toolkit	35
Research time allocated for the pre-released statement in paper 1	5
Internal assessment	20

ASSESSMENT AT A GLANCE

Type of assessment	Format of assessment	Time (hours)	Weighting of final grade (%)
External		**4.5**	**80**
Paper 1	Based on a pre-released statement that specifies the context and background for the unseen case study	1.5	25
Paper 2	Based on unseen stimulus material with a quantitative focus	1.75	30
Paper 3	Based on unseen stimulus material about a social enterprise	1.25	25
Internal		**20**	**20**
Business research project	Students produce a research project about a real business issue or problem facing a particular organization using a conceptual lens	20	20

ASSESSMENT MODEL

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

AO1: Knowledge and understanding
Demonstrate knowledge and understanding of:
- business management tools and theories
- course topics and concepts
- business problems, issues and decisions
- HL extension topics (HL only).

AO2: Application and analysis
Apply and analyse:
- business management tools and theories
- course topics and concepts
- business problems, issues and decisions
- business decisions and issues through the selection and use of appropriate data
- HL extension topics (HL only).

AO3: Synthesis and evaluation
Synthesize and evaluate:
- business management tools and theories
- course topics and concepts
- business problems, issues and decisions
- stakeholder interests to reach informed business decisions
- recommendations for competing future strategic options (HL only)
- HL extension topics (HL only).

AO4: Use and application of appropriate skills
- Select and apply relevant business management tools, theories and concepts to support research into a business issue or problem.
- Select, interpret and analyse business materials from a range of primary and secondary sources.
- Create well-structured materials using business management terminology.
- Communicate analysis, evaluation and conclusions of research effectively.

BUSINESS MANAGEMENT
STANDARD LEVEL

COURSE DESCRIPTION AND AIMS

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

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

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

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

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

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

CURRICULUM MODEL OVERVIEW

Component	Recommended teaching hours
Unit 1: Introduction to business management 1.1 What is a business? 1.2 Types of business entities 1.3 Business objectives 1.4 Stakeholders 1.5 Growth and evolution 1.6 Multinational companies (MNCs)	20
Unit 2: Human resource management 2.1 Introduction to human resource management 2.2 Organizational structure 2.3 Leadership and management 2.4 Motivation and demotivation 2.5 Organizational (corporate) culture (HL only) 2.6 Communication 2.7 Industrial/employeerelations (HL only)	20
Unit 3: Finance and accounts 3.1 Introduction to finance 3.2 Sources of finance 3.3 Costs and revenues 3.4 Final accounts 3.5 Profitability and liquidity ratio analysis 3.6 Debt/equity ratio analysis (HL only) 3.7 Cashflow 3.8 Investment appraisal 3.9 Budgets (HL only)	30

CURRICULUM MODEL OVERVIEW

Component	Recommended teaching hours
Unit 4: Marketing 4.1 Introduction to marketing 4.2 Marketing planning 4.3 Sales forecasting (HL only) 4.4 Market research 4.5 The seven Ps of the marketing mix 4.6 International marketing (HL only)	30
Unit 5: Operations management 5.1 Introduction to operations management 5.2 Operations methods 5.3 Lean production and quality management (HL only) 5.4 Location 5.5 Break-even analysis 5.6 Production planning (HL only) 5.7 Crisis management and contingency planning (HL only) 5.8 Research and development (HL only) 5.9 Management information systems (HL only)	15
Business management toolkit	10
Research time allocated for the pre-released statement in paper 1	5
Internal assessment	20

ASSESSMENT MODEL

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

AO1: Knowledge and understanding
Demonstrate knowledge and understanding of:
- business management tools and theories
- course topics and concepts
- business problems, issues and decisions
- HL extension topics (HL only).

AO2: Application and analysis
Apply and analyse:
- business management tools and theories
- course topics and concepts
- business problems, issues and decisions
- business decisions and issues through the selection and use of appropriate data
- HL extension topics (HL only).

AO3: Synthesis and evaluation
Synthesize and evaluate:
- business management tools and theories
- course topics and concepts
- business problems, issues and decisions
- stakeholder interests to reach informed business decisions
- recommendations for competing future strategic options (HL only)
- HL extension topics (HL only).

AO4: Use and application of appropriate skills
- Select and apply relevant business management tools, theories and concepts to support research into a business issue or problem.
- Select, interpret and analyse business materials from a range of primary and secondary sources.
- Create well-structured materials using business management terminology.
- Communicate analysis, evaluation and conclusions of research effectively.

ASSESSMENT AT A GLANCE

Type of assessment	Format of assessment	Time (hours)	Weighting of final grade (%)
External		**3**	**70**
Paper 1	Based on a pre-released statement that specifies the context and background for the unseen case study	1.5	35
Paper 2	Based on unseen stimulus material with a quantitative focus	1.5	35
Internal		**20**	**30**
Business research project	Students produce a research project about a real business issue or problem facing a particular organization using a conceptual lens	20	30

ECONOMICS HIGHER LEVEL

COURSE DESCRIPTION AND AIMS

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

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

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

CURRICULUM MODEL OVERVIEW

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

CURRICULUM MODEL OVERVIEW

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

ASSESSMENT MODEL

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

Assessment objective 1: Knowledge and understanding
- Demonstrate knowledge and understanding of specified content
- Demonstrate knowledge and understanding of the common SL/HL syllabus
- Demonstrate knowledge and understanding of current economic issues and data
- Demonstrate knowledge and understanding of the HL extension topics

Assessment objective 2: Application and analysis
- Apply economic concepts and theories to real-world situations
- Identify and interpret economic data
- Analyse how economic information is used effectively in particular contexts
- In the internal assessment task: Explain the link between key economic concepts and economic commentaries
- Demonstrate application and analysis of the HL extension topics

Assessment objective 3: Synthesis and evaluation
- Examine economic concepts and theories
- Use economic concepts and examples to construct and present an argument
- Discuss and evaluate economic information and theories
- Demonstrate economic synthesis and evaluation of the HL extension topics
- elect and use economic data using economic theory to make policy recommendations

Assessment objective 4:
Use and application of appropriate skills
- Produce well-structured written material, using appropriate economic theory, concepts and terminology
- Produce and use diagrams to help explain economic theory, concepts and real-world issues
- Select, interpret and analyse appropriate extracts from the news media
- Interpret appropriate data sets
- Use quantitative techniques to identify, explain and analyse economic relationships

ASSESSMENT AT A GLANCE

Type of assessment	Format of assessment	Time (hours)	Weighting of final grade (%)
External		**4.75**	**80**
Paper 1	Extended response paper based on all units of the syllabus	1.25	20
Paper 2	Data response paper based on all units of the syllabus	1.75	30
Paper 3	Policy paper based on all units of the syllabus	1.75	30
Internal		**20**	**20**
Portfolio	Three commentaries based on different units of the syllabus (except the introductory unit) and from published extracts from the news media, analysed using different key concepts	20	20

ECONOMICS STANDARD LEVEL

COURSE DESCRIPTION AND AIMS

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

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

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

CURRICULUM MODEL OVERVIEW

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

CURRICULUM MODEL OVERVIEW

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

ASSESSMENT MODEL

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

Assessment objective 1: Knowledge and understanding
- Demonstrate knowledge and understanding of specified content
- Demonstrate knowledge and understanding of the common SL/HL syllabus
- Demonstrate knowledge and understanding of current economic issues and data

Assessment objective 2: Application and analysis
- Apply economic concepts and theories to real-world situations
- Identify and interpret economic data
- Analyse how economic information is used effectively in particular contexts
- In the internal assessment task: Explain the link between key economic concepts and economic commentaries

Assessment objective 3: Synthesis and evaluation
- Examine economic concepts and theories
- Use economic concepts and examples to construct and present an argument
- Discuss and evaluate economic information and theories

Assessment objective 4:
Use and application of appropriate skills
- Produce well-structured written material, using appropriate economic theory, concepts and terminology
- Produce and use diagrams to help explain economic theory, concepts and real-world issues
- Select, interpret and analyse appropriate extracts from the news media
- Interpret appropriate data sets
- Use quantitative techniques to identify, explain and analyse economic relationships

ASSESSMENT AT A GLANCE

Type of assessment	Format of assessment	Time (hours)	Weighting of final grade (%)
External		**3**	**70**
Paper 1	Extended response paper based on all units of the syllabus	1.25	30
Paper 2	Data response paper based on all units of the syllabus	1.75	40
Internal		**20**	**30**
Portfolio	Three commentaries based on different units of the syllabus (except the introductory unit) and from published extracts from the news media, analysed using different key concepts	20	30

GEOGRAPHY

COURSE DESCRIPTION AND AIMS

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

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

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

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

- develop an understanding of the dynamic interrelationships between people, places, spaces and the environment at different scales
- develop a critical awareness and consider complexity thinking in the context of the nexus of geographic issues, including:

  a. acquiring an in-depth understanding of how geographic issues, or wicked problems, have been shaped by powerful human and physical processes

  b. synthesizing diverse geographic knowledge in order to form viewpoints about how these issues could be resolved.
- understand and evaluate the need for planning and sustainable development through the management of resources at varying scales.

ASSESSMENT MODEL

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

1. Demonstrate knowledge and understanding of specified content
- the core theme – global change
- two optional themes at SL and three optional themes at HL
- at HL, the HL extension – global interactions
- in internal assessment, a specific geographic research topic.

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

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

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

CURRICULUM MODEL OVERVIEW

Syllabus component	Recommended teaching hours	
	SL	**HL**
Geographic themes – seven options **SL – two options; HL – three options** • Freshwater • Oceans and coastal margins • Extreme environments • Geophysical hazards • Leisure, tourism and sport • Food and health • Urban environments	60	90
SL and HL core **Geographic perspectives – global change** • Population distribution – changing population • Global climate – vulnerability and resilience • Global resource consumption and security	70	70
HL only **Geographic perspectives – global interactions** • Power, places and networks • Human development and diversity • Global risks and resilience		60
Internal assessment **SL and HL Fieldwork** Fieldwork, leading to one written report based on a fieldwork question, information collection and analysis with evaluation	20	20
Total teaching hours	**150**	**240**

ASSESSMENT AT A GLANCE

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

HISTORY HIGHER LEVEL

COURSE DESCRIPTION AND AIMS

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

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

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

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

CURRICULUM MODEL OVERVIEW

Component	Recommended teaching hours
Prescribed subjects ***One of the following, using two case studies, each taken from a different region of the world:*** 1. Military leaders 2. Conquest and its impact 3. The move to global war 4. Rights and protest 5. Conflict and intervention	40
World history topics ***Two of the following, using topic examples from more than one region of the world:*** 1. Society and economy (750–1400) 2. Causes and effects of wars (750–1500) 3. Dynasties and rulers (750–1500) 4. Societies in transition (1400–1700) 5. Early Modern states (1450–1789) 6. Causes and effects of Early Modern wars (1500–1750) 7. Origins, development and impact of industrialization (1750–2005) 8. Independence movements (1800–2000) 9. Emergence and development of democratic states (1848–2000) 10. Authoritarian states (20th century) 11. Causes and effects of 20th-century wars 12. The Cold War: Superpower tensions and rivalries (20th century)	90
HL options: Depth studies ***One of the following:*** 1. History of Africa and the Middle East 2. History of the Americas 3. History of Asia and Oceania 4. History of Europe	90
Internal assessment Historical investigation	20

ASSESSMENT MODEL

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

Assessment objective 1: Knowledge and understanding
- Demonstrate detailed, relevant and accurate historical knowledge.
- Demonstrate understanding of historical concepts and context.
- Demonstrate understanding of historical sources.

Assessment objective 2: Application and analysis
- Formulate clear and coherent arguments.
- Use relevant historical knowledge to effectively support analysis. z Analyse and interpret a variety of sources.

Assessment objective 3: Synthesis and evaluation
- Integrate evidence and analysis to produce a coherent response.
- Evaluate different perspectives on historical issues and events, and integrate this evaluation effectively into a response.
- Evaluate sources as historical evidence, recognizing their value and limitations.
- Synthesize information from a selection of relevant sources.

Assessment objective 4: Use and application of appropriate skills
- Structure and develop focused essays that respond effectively to the demands of a question.
- Reflect on the methods used by, and challenges facing, the historian. z Formulate an appropriate, focused question to guide a historical inquiry.
- Demonstrate evidence of research skills, organization, reference and selection of appropriate sources.

ASSESSMENT AT A GLANCE

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

HISTORY STANDARD LEVEL

COURSE DESCRIPTION AND AIMS

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

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

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

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

CURRICULUM MODEL OVERVIEW

Component	Recommended teaching hours
Prescribed subjects ***One of the following, using two case studies, each taken from a different region of the world:*** 1. Military leaders 2. Conquest and its impact 3. The move to global war 4. Rights and protest 5. Conflict and intervention	40
World history topics ***Two of the following, using topic examples from more than one region of the world:*** 1. Society and economy (750–1400) 2. Causes and effects of wars (750–1500) 3. Dynasties and rulers (750–1500) 4. Societies in transition (1400–1700) 5. Early Modern states (1450–1789) 6. Causes and effects of Early Modern wars (1500–1750) 7. Origins, development and impact of industrialization (1750–2005) 8. Independence movements (1800–2000) 9. Emergence and development of democratic states (1848–2000) 10. Authoritarian states (20th century) 11. Causes and effects of 20th-century wars 12. The Cold War: Superpower tensions and rivalries (20th century)	90
Internal assessment Historical investigation	20

ASSESSMENT MODEL

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

Assessment objective 1: Knowledge and understanding
- Demonstrate detailed, relevant and accurate historical knowledge.
- Demonstrate understanding of historical concepts and context.
- Demonstrate understanding of historical sources.

Assessment objective 2: Application and analysis
- Formulate clear and coherent arguments.
- Use relevant historical knowledge to effectively support analysis.
- Analyse and interpret a variety of sources.

Assessment objective 3: Synthesis and evaluation
- Integrate evidence and analysis to produce a coherent response.
- Evaluate different perspectives on historical issues and events, and integrate this evaluation effectively into a response.
- Evaluate sources as historical evidence, recognizing their value and limitations.
- Synthesize information from a selection of relevant sources.

Assessment objective 4: Use and application of appropriate skills
- Integrate evidence and analysis to produce a coherent response.
- Evaluate different perspectives on historical issues and events, and integrate this evaluation effectively into a response.
- Evaluate sources as historical evidence, recognizing their value and limitations.
- Synthesize information from a selection of relevant sources.

ASSESSMENT AT A GLANCE

Type of assessment	Format of assessment	Time (hours)	Weighting of final grade (%)
External		**2,5**	**75**
Paper 1	Source-based paper based on the five prescribed subjects	1	30
Paper 2	Essay paper based on the 12 world history topics	1.5	45
Internal		**20**	**25**
Historical investigation	A historical investigation into a topic of the student's choice.	20	25

GLOBAL POLITICS

COURSE DESCRIPTION AND AIMS

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

The course integrates concepts, content and contexts through inquiry.

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

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

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

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

CURRICULUM MODEL OVERVIEW

Syllabus component	Recommended teaching hours	
	SL	**HL**
Core	125	125
Understanding power and global politics		
Thematic studies		
• Rights and justice • Development and sustainability • Peace and conflict		
Internal assessment	25	35
Engagement project		
HL extension: global political challenges	-	80
Total teaching hours	**150**	**240**

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

ASSESSMENT MODEL

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

Knowledge and understanding
Demonstrate knowledge and understanding of:
- power relationships
- political concepts
- relevant source material
- political issues and challenges.

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

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

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

ASSESSMENT AT A GLANCE

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

SAMPLE QUESTIONS

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

PSYCHOLOGY

COURSE DESCRIPTION AND AIMS

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

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

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

Psychologists employ a range of research methods, both qualitative and quantitative, to test their observations and hypotheses. DP psychology promotes an understanding of the various approaches to research and how they are used to critically reflect on the evidence as well as assist in the design, implementation, analysis and evaluation of the students'own investigations. Surrounding the approaches and the options are the overarching themes of research and ethics. A consideration of both is paramount to the nature of the subject.

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

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

CURRICULUM MODEL OVERVIEW

Syllabus component	Recommended teaching hours	
	SL	**HL**
Core	90	120
• Biological approach to understanding behaviour • Cognitive approach to understanding behaviour • Sociocultural approach to understanding behaviour • Approaches to researching behaviour	20	60
Options	20	40
• Abnormal psychology • Developmental psychology • Health psychology • Psychology of human relationships		
Internal assessment	20	20
Experimental study		
Total teaching hours	**150**	**240**

ASSESSMENT MODEL

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

1. Knowledge and comprehension of specified content
- Demonstrate knowledge and comprehension of:
  - key terms and concepts in psychology
  - a range of psychological theories and studies
- the biological, cognitive and sociocultural approaches to mental processes and behaviour
- research methods used in psychology.

2. Application and analysis
- Demonstrate an ability to use examples of psychological research and psychological concepts to formulate an argument in response to a specific question.
- Demonstrate application and analysis of:
  - a range of psychological theories and research studies
  - the knowledge relevant to areas of applied psychology.
- At HL only, analyse qualitative and quantitative research in psychology.

3. Synthesis and evaluation
- Evaluate the contribution of:
  - psychological theories to understanding human psychology
  - research to understanding human psychology
  - the theories and research in areas of applied psychology.
- At HL only, evaluate research scenarios from a methodological and ethical perspective.

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

ASSESSMENT AT A GLANCE

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

GROUP 4 – SCIENCES

AIMS

Through studying any of the group 4 subjects, 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 distinguishes the group 4 subjects from other disciplines and characterizes each of the subjects within group 4.

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

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

A common curriculum model applies to all the Diploma programme group 4 subjects: biology, chemistry, physics and design technology. (There are some differences in this model for design technology and these arise from the design project, which is a unique feature of this subject.)

Students at both SL and HL study a core syllabus, and this is supplemented by the study of options. Students at HL also study additional higher level (AHL) material. Students at both SL and HL study one option. There are three kinds of options: those specific to SL students, those specific to HL students and those that can be taken by both SL and HL students. Students at SL are required to spend 40 hours, and students at HL 60 hours, on practical/investigative work. This includes 10 hours for the group 4 project and 10 hours for the Individual Investigation.

OBJECTIVES

It is the intention of all the Diploma programme experimental science courses that students achieve the following objectives.

Demonstrate knowledge and understanding of:
- facts, concepts and terminology
- methodologies and techniques
- communicating scientific information

Apply:
- facts, concepts and terminology
- methodologies and techniques
- fcommunicating scientific information

Formulate, analyse and evaluate:
- hypotheses, research questions and predictions
- methodologies and techniques
- primary and secondary data
- scientific explanations

Demonstrate the appropriate research, experiment, and personal skills necessary to carry out insightful and ethical investigations.

INTERNAL ASSESSMENT

Standard Level
40 Hours Practical work including 10 hours "Group 4 Project" (an interdisciplinary project) and 10 hours "individual investigation".

Higher Level
60 Hours Practical work including10 hours "Group 4 Project" (an interdisciplinary project) and 10 hours "individual investigation". For details of internal assessment criteria see below.

PRACTICAL WORK AND INTERNAL ASSESSMENT

The internal assessment (IA) requirements are the same for all group 4 subjects. The IA, worth 20% of the final assessment, consists of one scientific investigation. The individual investigation should cover a topic that is commensurate with the level of the course of study.

Student work is internally assessed by the teacher and externally moderated by the IBO. The performance in IA at both SL and HL is marked against assessment criteria, with a total mark out of 24.

CRITERIA AND ASPECTS

The internal assessment uses five assessment criteria to assess the final report of the individual investigation for both SL and HL students:

Personal Engagement	2 marks	8 %
Exploration	6 marks	25 %
Analysis	6 marks	25 %
Evaluation	6 marks	25 %
Communication	4 marks	17 %

ASSESSMENT CRITERIA

Personal Engagement assesses the extent to which the student engages with the exploration and makes it their own. Personal engagement may be recognized in different attributes and skills. These could include addressing personal interests or showing evidence of independent thinking, creativity or initiative in the designing, implementation or presentation of the investigation.

Exploration assesses the extent to which the student establishes the scientific context for the work, states a clear and focused research question and uses concepts and techniques appropriate to the Diploma programme level. Where appropriate, this criterion also assesses awareness of safety, environmental, and ethical considerations.

Analysis assesses the extent to which the student's report provides evidence that the student has selected, recorded, processed and interpreted the data in ways that are relevant to the research question and can support a conclusion.

Evaluation assesses the extent to which the student's report provides evidence of evaluation of the investigation and the results with regard to the research question and the accepted scientific context.

Communication assesses whether the investigation is presented and reported in a way that supports effective communication of the focus, process and outcomes.

THE GROUP 4 PROJECT

The Group 4 project is a collaborative activity where students from different group 4 subjects work together on a scientific or technological topic, allowing for concepts and perceptions from across the disciplines to be shared in line with aim 10 – that is, to "encourage an understanding of the relationships between scientific disciplines and the overarching nature of the scientific method". The project can be practically or theoretically based. The group 4 project allows students to appreciate the environmental, social and ethical implications of science and technology. It may also allow them to understand the limitations of scientific study, for example, the shortage of appropriate data and/or the lack of resources.

The emphasis is on interdisciplinary cooperation and the processes involved in scientific investigation, rather than the products of such investigation. The project clearly addresses aims 7, 8 and 10 of the group 4 subject guides. The project involves students collaborating with those from other group 4 subjects at all stages.

BIOLOGY

COURSE DESCRIPTION AND AIMS

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

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

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

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

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

CURRICULUM MODEL OVERVIEW

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

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

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

CURRICULUM MODEL OVERVIEW

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

Syllabus component	Recommended teaching hours	
	SL	**HL**
Unity and diversity	19	33
• Water • Nucleic acids • Origins of cells * • Cell structure • Viruses * • Diversity of organisms • Classification and cladistics * • Evolution and speciation • Conservation of biodiversity		
Form and function	26	39
• Carbohydrates and lipids • Proteins • Membranes and membrane transport • Organelles and compartmentalization • Cell specialization • Gas exchange • Transport • Muscle and motility * • Adaptation to environment • Ecological niches		
Interaction and interdependance	31	48
• Enzymes and metabolism • Cell respiration • Photosynthesis • Chemical signalling * • Neural signalling • Integration of body systems • Defence against disease • Populations and communities • Transfer of energy and matter		
Continuity and change	34	60
• DNA replication • Protein synthesis • Mutations and gene editing • Cell and nuclear division • Gene expression * • Water potential • Reproduction • Inheritance • Homeostasis • Natural selection • Sustainability and change • Climate change		
Experimental programme	**40**	**60**
Practical work	20	40
Collaborative sciences project	10	10
Scientific investigation	10	10
Total teaching hours	**110**	**180**

SKILLS IN THE STUDY OF BIOLOGY

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

Tools
- Experimental techniques
- Technology
- Mathematics

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

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

ASSESSMENT MODEL

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

Assessment objective 1
Demonstrate knowledge of:
- terminology, facts and concepts
- skills, techniques and methodologies.

Assessment objective 2
Understand and apply knowledge of:
- terminology and concepts
- skills, techniques and methodologies.

Assessment objective 3
Analyse, evaluate, and synthesize:
- experimental procedures
- primary and secondary data
- trends, patterns and predictions.

Assessment objective 4
Demonstrate the application of skills necessary to carry out insightful and ethical investigations.

ASSESSMENT AT A GLANCE

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

CHEMISTRY

COURSE DESCRIPTION AND AIMS

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

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

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

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

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

CURRICULUM MODEL OVERVIEW

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

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

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

CURRICULUM MODEL OVERVIEW

Syllabus component	Recommended teaching hours	
	SL	**HL**
Structure 1: Models of the particulate nature of matter • Structure 1.1: Introduction to the particulate nature of matter • Structure 1.2: The nuclear atom • Structure 1.3: Electron configurations • Structure 1.4: Counting particles by mass: The mole • Structure 1.5: Ideal gases	17	21
Structure 2: Models of bonding and structure • Structure 2.1: The ionic model • Structure 2.2: The covalent model • Structure 2.3: The metallic model • Structure 2.4: From models to materials	20	30
Structure 3: Classification of matter • Structure 3.1: The periodic table: Classification of elements • Structure 3.2: Functional groups: Classification of organic compounds	16	31
Reactivity 1: What drives chemical reactions? • Reactivity 1.1: Measuring enthalpy change • Reactivity 1.2: Energy cycles in reactions • Reactivity 1.3: Energy from fuels • Reactivity 1.4: Entropy and spontaneity (Additional higher level)	12	22
Reactivity 2: How much, how fast and how far? • Reactivity 2.1: How much? The amount of chemical change • Reactivity 2.2: How fast? The rate of chemical change • Reactivity 2.3: How far? The extent of chemical change	21	31
Reactivity 3: What are the mechanisms of chemical change? • Reactivity 3.1: Proton transfer reactions • Reactivity 3.2: Electron transfer reactions • Reactivity 3.3: Electron sharing reactions • Reactivity 3.4: Electron-pair sharing reactions	24	45
Experimental programme	**40**	**60**
Practical work	20	40
Collaborative sciences project	10	10
Scientific investigation	10	10
Total teaching hours	**110**	**180**

SKILLS IN THE STUDY OF CHEMISTRY

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

Tools
- Experimental techniques
- Technology
- Mathematics

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

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

ASSESSMENT MODEL

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

Assessment objective 1
Demonstrate knowledge of:
- terminology, facts and concepts
- skills, techniques and methodologies.

Assessment objective 2
Understand and apply knowledge of:
- terminology and concepts
- skills, techniques and methodologies.

Assessment objective 3
Analyse, evaluate, and synthesize:
- experimental procedures
- primary and secondary data
- trends, patterns and predictions.

Assessment objective 4
Demonstrate the application of skills necessary to carry out insightful and ethical investigations.

ASSESSMENT AT A GLANCE

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

PHYSICS

COURSE DESCRIPTION AND AIMS

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

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

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

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

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

CURRICULUM MODEL OVERVIEW

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

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

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

CURRICULUM MODEL OVERVIEW

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

Syllabus component	Recommended teaching hours	
	SL	**HL**
A Space, time and motion	27	42
• A.1 Kinematics * • A.2 Forces and momentum * • A.3 Work, energy and power * • A.4 Rigid body mechanics *** • A.5 Galilean and special relativity ***		
B. The particulate nature of matter	24	32
• B.1 Thermal energy transfers * B.2 Greenhouse effect * • B.3 Gas laws * • B.4 Thermodynamics *** • B.5 Current and circuits *		
C. Wave behaviour	17	29
• C.1 Simple harmonic motion ** • C.2 Wave model * • C.3 Wave phenomena ** • C.4 Standing waves and resonance * • C.5 Doppler effect **		
D. Fields	19	38
• D.1 Gravitational fields ** • D.2 Electric and magnetic fields ** • D.3 Motion in electromagnetic fields * • D.4 Induction ***		
E. Nuclear and quantum physics		
• E.1 Structure of the atom ** • E.2 Quantum physics *** • E.3 Radioactive decay ** • E.4 Fission * • E.5 Fusion and stars *		
Experimental programme	**40**	**60**
Practical work	20	40
Collaborative sciences project	10	10
Scientific investigation	10	10
Total teaching hours	**110**	**180**

SKILLS IN THE STUDY OF PHYSICS

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

Tools
- Experimental techniques
- Technology
- Mathematics

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

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

ASSESSMENT MODEL

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

Assessment objective 1
Demonstrate knowledge of:
- terminology, facts and concepts
- skills, techniques and methodologies.

Assessment objective 2
Understand and apply knowledge of:
- terminology and concepts
- skills, techniques and methodologies.

Assessment objective 3
Analyse, evaluate, and synthesize:
- experimental procedures
- primary and secondary data
- trends, patterns and predictions.

Assessment objective 4
Demonstrate the application of skills necessary to carry out insightful and ethical investigations.

ASSESSMENT AT A GLANCE

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

DESIGN TECHNOLOGY HIGHER LEVEL

COURSE DESCRIPTION AND AIMS

The Diploma Programme design technology course aims to develop internationally minded people whose enhanced understanding of design and the technological world can facilitate our shared guardianship of the planet and create a better world.

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

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

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

1. a sense of curiosity as they acquire the skills necessary for independent and lifelong learning and action through inquiry into the technological world around them

2. an ability to explore concepts, ideas and issues with personal, local and global significance to acquire in-depth knowledge and understanding of design and technology

3. initiative in applying thinking skills critically and creatively to identify and resolve complex social and technological problems through reasoned ethical decision-making

4. an ability to understand and express ideas confidently and creatively using a variety of communication techniques through collaboration with others

5. a propensity to act with integrity and honesty, and take responsibility for their own actions in designing technological solutions to problems

6. an understanding and appreciation of cultures in terms of global technological development, seeking and evaluating a range of perspectives

7. a willingness to approach unfamiliar situations in an informed manner and explore new roles, ideas and strategies to confidently articulate and defend proposals

8. an understanding of the contribution of design and technology to the promotion of intellectual, physical and emotional balance and the achievement of personal and social well-being

9. empathy, compassion and respect for the needs and feelings of others in order to make a positive difference to the lives of others and to the environment

10. skills that enable them to reflect on the impacts of design and technology on society and the environment in order to develop their own learning and enhance solutions to technological problems.

CURRICULUM MODEL OVERVIEW

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

The group 4 project
The group 4 project is a collaborative activity where students from different group 4 subjects, within or between schools, work together. It allows for concepts and perceptions from across disciplines to be shared while appreciating the environmental, social and ethical implications of science and technology.

It can be practically or theoretically based and aims to develop an understanding of the relationships between scientific disciplines and their influence on other areas. The emphasis is on interdisciplinary cooperation and the scientific processes.

ASSESSMENT MODEL

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

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

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

3. Construct, analyse and evaluate:
- design briefs, problems, specifications and plans methods, techniques and products
- data, information and technological explanations.

4. Demonstrate the appropriate research, experimentation, modelling and personal skills necessary to carry out innovative, insightful, ethical and effective designing.

ASSESSMENT AT A GLANCE

Type of assessment	Format of assessment	Time (hours)	Weighting of final grade (%)
External		**4**	**60**
Paper 1	Multiple-choice questions on core and HL extension material	1	20
Paper 2	Data based, short-answer, and extended-response questions on core material	1.5	20
Paper 3	Structured questions on HL extension material	1,5	20
Internal		**60**	**40**
Design project	Individual design project	60	40

DESIGN TECHNOLOGY STANDARD LEVEL

COURSE DESCRIPTION AND AIMS

The Diploma Programme design technology course aims to develop internationally minded people whose enhanced understanding of design and the technological world can facilitate our shared guardianship of the planet and create a better world.

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

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

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

1. a sense of curiosity as they acquire the skills necessary for independent and lifelong learning and action through inquiry into the technological world around them

2. an ability to explore concepts, ideas and issues with personal, local and global significance to acquire in-depth knowledge and understanding of design and technology

3. initiative in applying thinking skills critically and creatively to identify and resolve complex social and technological problems through reasoned ethical decision-making

4. an ability to understand and express ideas confidently and creatively using a variety of communication techniques through collaboration with others

5. a propensity to act with integrity and honesty, and take responsibility for their own actions in designing technological solutions to problems

6. an understanding and appreciation of cultures in terms of global technological development, seeking and evaluating a range of perspectives

7. a willingness to approach unfamiliar situations in an informed manner and explore new roles, ideas and strategies to confidently articulate and defend proposals

8. an understanding of the contribution of design and technology to the promotion of intellectual, physical and emotional balance and the achievement of personal and social well-being

9. empathy, compassion and respect for the needs and feelings of others in order to make a positive difference to the lives of others and to the environment

10. skills that enable them to reflect on the impacts of design and technology on society and the environment in order to develop their own learning and enhance solutions to technological problems.

CURRICULUM MODEL OVERVIEW

Component	Recommended teaching hours
Core	**90**
1. Human factors and ergonomics	12
2. Resource management and sustainable production	22
3. Modelling	12
4. Raw material to final product	23
5. Innovation and design	13
6. Classic design	8
Practical work	**60**
Design project	40
Group 4 project	10
Teacher-directed activities	10

The group 4 project
The group 4 project is a collaborative activity where students from different group 4 subjects, within or between schools, work together. It allows for concepts and perceptions from across disciplines to be shared while appreciating the environmental, social and ethical implications of science and technology.

It can be practically or theoretically based and aims to develop an understanding of the relationships between scientific disciplines and their influence on other areas. The emphasis is on interdisciplinary cooperation and the scientific processes.

ASSESSMENT MODEL

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

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

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

3. Construct, analyse and evaluate:
- design briefs, problems, specifications and plans methods, techniques and products
- data, information and technological explanations.

4. Demonstrate the appropriate research, experimentation, modelling and personal skills necessary to carry out innovative, insightful, ethical and effective designing.

ASSESSMENT AT A GLANCE

Type of assessment	Format of assessment	Time (hours)	Weighting of final grade (%)
External		**2.25**	**60**
Paper 1	Multiple-choice questions on core material	0.75	30
Paper 2	Data-based, short-answer, and extended-response questions on core material	1.5	30
Internal		**40**	**40**
Design project	Individual design project	40	40

SPORTS, EXERCISE AND HEALTH SCIENCE

COURSE DESCRIPTION AND AIMS

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

The course is organized 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 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.

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

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

CURRICULUM MODEL OVERVIEW

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

The DP SEHS course is built on:

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

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

While nature of science and the three SEHS themes serve as the basis for developing conceptual understanding, the approaches to learning and the skills in the study of SEHS support students' learning processes during and beyond their IB experience. Throughout the syllabus, there are opportunities to practise and refine these skills and apply them in different areas of study.

CURRICULUM MODEL OVERVIEW

Syllabus component	Recommended teaching hours	
	SL	**HL**
Total teaching hours	**110**	**180**
A. Exercise physiology and nutrition of the human body		
• A.1 Communication	23	28
• A.2 Hydration and nutrition	16	22
• A.3 Response	8	19
B. Biomechanics		
• B.1 Generating movement in the body	12	17
• B.2 Forces, motion and movement	11	31
• B.3 Injury	7	9
C. Sports psychology and motor learning		
• C.1 Individual differences	4	10
• C.2 Motor learning	12	12
• C.3 Motivation	8	16
• C.4 Stress and coping	5	7
• C.5 Psychological skills	4	9
Experimental programme	**40**	**60**
Practical work	20	40
Collaborative sciences project	10	10
Scientific investigation	10	10

SKILLS IN THE STUDY OF SPORTS, EXERCISE AND HEALTH SCIENCES

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

Tools
- Experimental techniques
- Technology
- Mathematics

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

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

ASSESSMENT MODEL

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

Assessment objective 1
Demonstrate knowledge of:

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

Assessment objective 2
Understand and apply knowledge of:

- terminology and concepts
- skills, techniques and methodologies.

Assessment objective 3
Analyse, evaluate, and synthesize:

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

Assessment objective 4
Demonstrate the application of skills necessay to carry out insightful and ethical investigations.

ASSESSMENT AT A GLANCE

Type of assessment	Format of assessment	Time (hours)		Weighting of final grade (%)	
		SL	HL	SL	HL
External		**3**	**4.25**	**76**	**76**
Paper 1	Paper 1A: Multiple-choice questions Paper 1B: Data-based questions and questions on experimental work	1.5	1,75	36	36
Paper 2	One data-b Short answer and extended-response questions	1.5	2,5	40	40
Internal		**10**	**10**	**24**	**24**
Scientific investigation	The scientific investigation is an open-ended task inwhich the student gathers and analyses data in order to answer their own formulated research question. The outcome of the scientific investigation will beassessed through the form of a written report. Themaximum overall word count for the report is 3,200 words.	10	10	24	24

ENVIRONMENT SYSTEMS AND SOCIETIES HIGHER AND STANDARD LEVEL

COURSE DESCRIPTION AND AIMS

Environmental systems and societies (ESS) is an interdisciplinary course, encompassing both the sciences and individuals and societies and is offered at both standard level (SL) and higher level (HL). As such, ESS combines a mixture of methodologies, techniques and knowledge associated with both the sciences and individuals and societies.

ESS is both a complex and contemporary course that engages students in the challenges of 21st century environmental issues. Consequently, it requires its students to develop a diverse set of skills, knowledge and understanding from different disciplines. Students develop a scientific approach through explorations of environmental systems. They also acquire understandings and methods from individuals and societies subjects whilst studying sustainability issues within social, cultural, economic, political, and ethical contexts. The interdisciplinary nature of the course means students produce a synthesis of understanding from the various topics studied. It also emphasizes the ability to perform research and investigations and to participate in philosophical, ethical, and pragmatic discussions of the issues involved from the local through to the global level.

ESS aims to empower and equip students to:

- develop understanding of their own environmental impact, in the broader context of the impact of humanity on the Earth and its biosphere
- develop knowledge of diverse perspectives to address issues of sustainability
- engage and evaluate the tensions around environmental issues using critical thinking
- develop a systems approach that provides a holistic lens for the exploration of environmental issues
- be inspired to engage in environmental issues across local and global contexts.

Because of the interdisciplinary nature of the subject, students can choose to study ESS to count as either a sciences or individuals and societies course, or as both. In this latter option, students have the opportunity to study an additional subject from any other subject group, including the sciences and individuals and societies subjects.

CURRICULUM MODEL OVERVIEW

Syllabus component	Recommended teaching hours	
	SL	HL
Total teaching hours	**100**	**190**
Topic 1 Foundation	**16**	**16**
• 1.1 Perspectives	3	3
• 1.2 Systems	5	5
• 1.3 Sustainability	8	8
Topic 2 Ecology	**22**	**35**
Topic 3 Biodiversity and conservation	**13**	**26**
Topic 4 Water	**12**	**25**
Topic 5 Land	**8**	**15**
Topic 6 Atmosphere and climate change	**10**	**23**
Topic 7 Natural resources	**10**	**18**
Topic 8 Human populations and urban systems	**9**	**15**
Higher level (HL) lens		
HL. a. Environmental law		5
HL. b. Environmental and ecological economics		7
HL. c. Environmental ethics		5
Experimental programme	**50**	**50**
Practical work	30	30
Collaborative sciences project	10	10
Scientific investigation	10	10

ASSESSMENT MODEL

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

Assessment objective 1
Demonstrate knowledge and understanding of relevant:
- terminology, facts, and concepts
- methodologies and techniques
- perspectives and worldviews.

Assessment objective 2
Apply this knowledge and understanding in the analysis of:
- explanations, concepts, and theories
- primary and secondary data and models
- case studies and examples
- arguments and values.

Assessment objective 3
Evaluate, justify and synthesize, as appropriate
- explanations, concepts, theories, and models
- arguments and proposed solutions
- methods of fieldwork and investigation
- political, economic, ethical and sociocultural contexts of issues.

Assessment objective 4
Engage with investigations of environmental and societal issues at the local and global level through:
- identifying an appropriate environmental issue and research question for investigation
- selecting and demonstrate the use of appropriate methods and skills to carry out insightful and
- ethical investigations into environmental issues.

ASSESSMENT AT A GLANCE

Type of assessment	Format of assessment	Time (hours)		Weighting of final grade (%)	
		SL	HL	SL	HL
External		**3**	**4.5**	**75**	**80**
Paper 1	Students will be provided with data in a variety offorms relating to a specific, previously unseen case study. Questions will be based on the analysis and evaluation of the data in the case study. All questions are compulsory.	1	2	25	30
Paper 2	Section A is made up of short-answer and data-based questions. Section B requires students to answer structured essay questions. There is a limited amount of choice.	2	2.5	50	50
Internal		**10**	**10**	**25**	**20**
Scientific investigation	The individual investigation is an open-ended taskin which the student gathers and analyses data to answer their own formulated research question. The outcome of the Individual investigation will be assessed through the form of a written report. Themaximum overall word count for the report is 3,000 words.	10	10	25	20

COMPUTER SCIENCE HIGHER LEVEL

COURSE DESCRIPTION AND AIMS

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

The course is organized 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 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.

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

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

CURRICULUM MODEL OVERVIEW

Component	Recommended teaching hours
Core syllabus content	
SL/HL core	**80**
• Topic 1: System fundamentals • Topic 2: Computer organization • Topic 3: Networks • Topic 4: Computational thinking, problem-solving and programming	
HL extension	**45**
• Topic 5: Abstract data structures • Topic 6: Resource management • Topic 7: Control	
Case study	**30**
Additional subject content introduced by the annually issued case study	
Option	
SL/HL core	**30**
HL extension	**15**
Students study one of the following options: • Option A: Databases • Option B: Modelling and simulation • Option C: Web science • Option D: Object-oriented programming (OOP)	

CURRICULUM MODEL OVERVIEW

Component	Recommended teaching hours
Internal assessment	
Solution Practical application of skills through the development of a product and associated documentation	**30**
Group 4 Project	**10**

ASSESSMENT MODEL

Having followed the computer science higher level course, students will be expected to:

Know and understand:
- relevant facts and concepts
- appropriate methods and techniques
- computer science terminology
- methods of presenting information.

Apply and use:
- relevant facts and concepts
- relevant design methods and techniques
- terminology to communicate effectively
- appropriate communication methods to present information.

Construct, analyse, evaluate and formulate:
- success criteria, solution specifications including task outlines, designs and test plans
- appropriate techniques within a specified solution.

Demonstrate the personal skills of cooperation and perseverance as well as appropriate technical skills for effective problem-solving in developing a specified product.

ASSESSMENT AT A GLANCE

Type of assessment	Format of assessment	Time (hours)	Weighting of final grade (%)
External			**80**
Paper 1	• Section A consists of several compulsory short answer questions. • Section B consists of five compulsory structured questions.	2 hours, 10 min	40
Paper 2	An examination paper of between three and seven compulsory questions; linked to the option studied.	1 hour, 20 min	20
Paper 3	An examination paper consisting of four compulsory questions based on a pre-seen case study.	1 hour	20
Internal			**20**
Written commentary	A report of The development of a computational solution. Students must produce: • a cover page that follows the prescribed format • a product • supporting documentation (word limit 2,000 words).	30 hours	25
Group 4 Project	To be assessed using the criterion Personal skills.	10 hours	

SAMPLE QUESTIONS

- Draw the representation of the binary search tree if the following data were inserted in this order: FALCON, CANARY, PIGEON, TURKEY, OSPREY.
- Discuss the methods used by criminals to hide or disguise certain files. For each method, identify the countermeasures that can be taken by a computer forensic scientist.

COMPUTER SCIENCE STANDARD LEVEL

COURSE DESCRIPTION AND AIMS

The IB DP Computer science SL course requires an understanding of the fundamental concepts of computational thinking as well as knowledge of how computers and other digital devices operate. The course, underpinned by conceptual thinking, draws on a wide spectrum of knowledge, and enables and empowers innovation, exploration and the acquisition of further knowledge. Students study how computer science interacts with and influences cultures, society and how individuals and societies behave, and the ethical issues involved. During the course the student will develop computational solutions. This will involve the ability to:

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

The aims of the computer science standard level courses are to:

- provide opportunities for study and creativity within a global context that will stimulate and challenge students developing the skills necessary for independent and lifelong learning
- provide a body of knowledge, methods and techniques that characterize computer science
- enable students to apply and use a body of knowledge, methods and techniques that characterize computer science
- demonstrate initiative in applying thinking skills critically to identify and resolve complex problems
- engender an awareness of the need for, and the value of, effective collaboration and communication in resolving complex problems
- develop logical and critical thinking as well as experimental, investigative and problem-solving skills
- develop and apply the students' information and communication technology skills in the study of computer science to communicate information confidently and effectively
- raise awareness of the moral, ethical, social, economic and environmental implications of using science and technology
- develop an appreciation of the possibilities and limitations associated with continued developments in IT systems and computer science
- encourage an understanding of the relationships between scientific disciplines and the overarching nature of the scientific method.

CURRICULUM MODEL OVERVIEW

Component	Recommended teaching hours
Core syllabus content	
SL/HL core The topics that must be studied, including some practical work, are: • Topic 1: System fundamentals • Topic 2: Computer organization • Topic 3: Networks • Topic 4: Computational thinking, problem-solving and programming	**80**
Option	
SL/HL core	**30**
Internal assessment	
Solution Practical application of skills through the development of a product and associated documentation	**30**
Group 4 Project	**10**

ASSESSMENT MODEL

Having followed the computer science standard level course, students will be expected to:

Know and understand:
- relevant facts and concepts
- appropriate methods and techniques
- computer science terminology
- methods of presenting information.

Apply and use:
- relevant facts and concepts
- relevant design methods and techniques
- terminology to communicate effectively
- appropriate communication methods to present information.

Construct, analyse, evaluate and formulate:
- success criteria, solution specifications including task outlines, designs and test plans
- appropriate techniques within a specified solution.

Demonstrate the personal skills of cooperation and perseverance as well as appropriate technical skills for effective problem-solving in developing a specified product.

ASSESSMENT AT A GLANCE

Type of assessment	Format of assessment	Time (hours)	Weighting of final grade (%)
External			**70**
Paper 1	• Section A consists of several compulsory short answer questions. • Section B consists of three compulsory structured questions.	1.5	45
Paper 2	An examination paper of between two and five compulsory question; linked to the option studied.	1	25
Internal			**30**
Solution·	The development of a computational solution. Students must produce: • a cover page that follows the prescribed format • a product supporting documentation (word limit 2,000 words). There must be evidence of independent research and investigation for students to reach the top level.	30	
Group 4 Project	To be assessed using the criterion Personal skills.	10 hours	

SAMPLE QUESTIONS

- The colour of a pixel can be stored as a 16-bit integer.
  (a) State how many different colours can be represented in a 16-bit integerfield.
  (b) State whether this storage system for colour values is digital or analog.
  (c) Outline one advantage and one disadvantage of using 32-bits per-pixel to store colours instead of 16-bits per-pixel.
- State the output of the following code fragment:
  double n= 1234.5678; double p = math.
  floor((n*100)/100); output (p); Recall that math.floor(3.7) produces the integer result 3.

GROUP 5 – MATHEMATICS

Individual students have different needs, aspirations, interests and abilities. For this reason there are two different subjects in mathematics, each available at SL and HL These courses are designed for different types of students: those who wish to study mathematics as a subject in its own right or to pursue their interests in areas related to mathematics, and those who wish to gain understanding and competence in how mathematics relates to the real world and to other subjects. Each course is designed to meet the needs of a particular group of students. Mathematics: analysis and approaches and Mathematics: applications and interpretation are both offered at SL and HL. 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 IB DP Programme.
- Their academic plans, in particular the subjects they wish to study in the future
- Their choice of career

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

CONCEPTS

Concepts promote the development of a broad, balanced, conceptual and connected curriculum. They represent big ideas that are relevant and facilitate connections within topics, across topics and also to other subjects within the DP. The twelve concepts support conceptual understanding, can inform units of work and can help to organize teaching and learning. Explanations of each of these concepts in a mathematical context have also been provided.

Approximation
This concept refers to a quantity or a representation which is nearly but not exactly correct.

Change
This concept refers to a variation in size, amount or behaviour.

Equivalence
This concept refers to the state of being identically equal or interchangeable, applied to statements, quantities or expressions.

Generalization
This concept refers to a general statement made on the basis of specific examples.

Modelling
This concept refers to the way in which mathematics can be used to represent the real world.

Patterns
This concept refers to the underlying order, regularity or predictability of the elements of a mathematical system.

Quantity
This concept refers to an amount or nuber.

Relationships
This concept refers to the connection between quantities, properties or concepts; these connections may be expressed as models, rules or statements. Relationships provide opportunities for students to explore patterns in the world around them.

Representation
This concept refers to using words, forlae, diagrams, tables, charts, graphs and models to represent mathematical information.

Space
This concept refers to the frame of geometrical dimensions describing an entity.

Systems
This concept refers to groups of interrelated elements.

Validity
This concept refers to using well-founded, logical mathematics

FORMAT OF THE SYLLABUS

The format of the syllabus section of the mathematics guides is the same for each subject and each level. This structure gives prominence and focus to the aspects of teaching and learning, including conceptual understandings, content and enrichment.

There are five topics and within these topics there are sub-topics. The five topics are:

- number and algebra
- functions
- geometry and trigonometry
- probability and statistics
- calculus

Each topic begins with a section on conceptual understandings. Details are given of which of the twelve key concepts could be used to relate to the topic. Essential understandings give details of the overall aims of the topic and then content-specific conceptual understandings give specific details of the aims and purpose of the topic and sub-topics. Each topic begins with SL content which is common to both Mathematics: analysis and approaches and to Mathematics: applications and interpretation.

ANALYSIS AND APPROACHES

COURSE DESCRIPTION AND AIMS

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

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

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

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

CURRICULUM MODEL OVERVIEW

Syllabus component	**Recommended teaching hours**	
	SL	**HL**
Number and algebra	19	39
Functions	21	32
Geometry and trigonometry	25	51
Statisticsandprobability	27	33
Calculus	28	55
Development of investigational, problem-solving and modelling skills and the exploration of an area of mathematics	30	30
Total teaching hours	**150**	**240**

ASSESSMENT MODEL

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

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

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

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

ASSESSMENT AT A GLANCE

Type of assessment	Format of assessment	Time (hours)		Weighting of final grade (%)	
		SL	HL	SL	HL
External		**3**	**5**	**75**	**80**
Paper 1	No technology allowed. **Section A:** compulsory short-response questions based on the syllabus. **Section B:** compulsory extended-response questions based on the syllabus.	1.5	2	40	30
Paper 2	Technology allowed. **Section A:** compulsory short-response questions based on the syllabus. **Section B:** compulsory extended-response questions based on the syllabus.	1.5	2	40	30
Paper 3	Technology allowed. Two compulsory extended-response problem-solving questions.		1		20
Internal		**15**	**15**	**20**	**20**
Exploration		15	15	20	20

APPLICATIONS AND INTERPRETATIONS

COURSE DESCRIPTION AND AIMS

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

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

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

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

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

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

CURRICULUM MODEL OVERVIEW

Syllabus component	Recommended teaching hours	
	SL	HL
Number and algebra	16	29
Functions	31	42
Geometry and trigonometry	18	46
Statistics and probability	36	52
Calculus	19	41
Development of investigational, problem-solving and modelling skills and the exploration of an area of mathematics	30	30
Total teaching hours	**150**	**240**

ASSESSMENT MODEL

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

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

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

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

ASSESSMENT AT A GLANCE

Type of assessment	Format of assessment	Time (hours)		Weighting of final grade (%)	
		SL	HL	SL	HL
External		**3**	**5**	**75**	**80**
Paper 1	Technology allowed. Compulsory short-response questions based on the syllabus.	1.5	2	40	30
Paper 2	Technology allowed. Compulsory extended-response questions based on the syllabus.	1.5	2	40	30
Paper 3	Technology allowed. Two compulsory extended-response problem-solving questions.	2	1		20
Internal		**15**	**15**	**20**	**20**
Exploration		15	15	20	20

GROUP 6 – THE ARTS

MUSIC

COURSE DESCRIPTION AND AIMS

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

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

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

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

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

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

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

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

What do students do in a music classroom?

- Engage with a diverse range of music that will broaden their musical horizons and provide stimuli to expand their own music-making
- Connect theoretical studies to practical work to gain a deeper understanding of the music they engage with.
- Communicate and present music as researchers, creators and performers.

How are music students assessed?

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

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

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

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

In addition, HL students will submit the following project.

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

By the end of the course students will have:

- broadened their musical horizons through engagement with diverse musical material
- analysed a wide range of music
- engaged with music technology as a compulsory part of the course
- gained confidence in the essential processes associated with music-making
- developed as holistic musicians with experience as creators and performers
- developed both independent and collaborative working skills
- honed their inquiry, reflection and critical thinking skills.

The course is ideal for students who ...

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

CURRICULUM MODEL OVERVIEW

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

ASSESSMENT AT A GLANCE

Type of assessment	Weighting of final grade (%)	
	SL	**HL**
External	**70**	**50**
Exploring music in context Students select samples of their work for a portfolio submission. Students submit: a) written work demonstrating engagement with, and understanding of, diverse musical material b) practical exercises in creating and performing	30	20
Presenting music Students submit a collection of works demonstrating engagement with diverse musical material from four areas of inquiry. The submission contains: a) Programmenotes b) Presenting as a creator: composition and/or improvisation c) Presenting as a performer: solo and/ or ensemble	40	30
Internal	**30**	**50**
Experimenting with music Students submit an experimentation report with evidence of their musical processes in creating and performing in two areas of inquiry in a local and/ or global context. The report provides a rationale and commentary for each process. Students submit: a) awrittenexperimentationreport that supports the experimentation b) practical musical evidence of the experimentation process in creating and performing	30	20
The contemporary music-maker (HL only) Students submit a continuous multimedia presentation documenting their real-life project which evidences: a) the project proposal b) the process and evaluation c) the realized project, or curated selections of it.		30

VISUAL ARTS HIGHER LEVEL

COURSE DESCRIPTION AND AIMS

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

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

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

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

1. enjoy lifelong engagement with the arts

2. become informed, reflective and critical practitioners in the arts

3. understand the dynamic and changing nature of the arts

4. explore and value the diversity of the arts across time, place and cultures

5. express ideas with confidence and competence

6. develop perceptual and analytical skills.

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

7. make artwork that is influenced by personal and cultural contexts

8. become informed and critical observers and makers of visual culture and media

9. develop skills, techniques and processes in order to communicate concepts and ideas.

CURRICULUM MODEL OVERVIEW

Syllabus component	
Visual arts in context • Examine and compare the work of artists from different cultural contexts. • Consider the contexts influencing their own work and the work of others. • Make art through a process of investigation, thinking critically and experimenting with techniques. • Apply identified techniques to their own developing work. • Develop an informed response to work and exhibitions they have seen and experienced. • Begin to formulate personal intentions for creating and displaying their own artworks.	80
Visual arts methods • Look at different techniques for making art. • Investigate and compare how and why different techniques have evolved and the processes involved. • Experiment with diverse media and explore techniques for making art. • Develop concepts through processes informed by skills, techniques and media. • Evaluate how their ongoing work communicates meaning and purpose. • Consider the nature of "exhibition", and think about the process of selection and the potential impact of their work on different audiences.	80
Communicating visual arts • Explore ways of communicating through visual and written means. • Make artistic choices about how to most effectively communicate knowledge and understanding. • Produce a body of artwork through a process of reflection and evaluation, showing a synthesis of skill, media and concept. • Select and present resolved works for exhibition. • Explain the ways in which the works are connected. • Discuss how artistic judgments impact the overall presentation.	80
Total teaching hours	**240**

Throughout the course students are required to maintain a visual arts journal. Although sections of the journal will be selected, adapted and presented for assessment, the journal itself is not directly assessed or moderated. It is, however, regarded as a fundamental activity of the course.

ASSESSMENT MODEL

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

1. Demonstrate knowledge and understanding of specified content

- Identify various contexts in which the visual arts can be created and presented
- Describe artwork from differing contexts, and identify the ideas, conventions and techniques employed by the art-makers
- Recognize the skills, techniques, media, forms and processes associated with the visual arts
- Present work, using appropriate visual arts language, as appropriate to intentions

2. Demonstrate application and analysis of knowledge and understanding

- Express concepts, ideas and meaning through visual communication
- Analyse artworks from a variety of different contexts
- Apply knowledge and understanding of skills, techniques, media, forms and processes related to art-making

3. Demonstrate synthesis and evaluation

- Critically analyse and discuss artworks created by themselves and others and articulate an informed personal response
- Formulate personal intentions for the planning, development and making of artworks that consider how meaning can be conveyed to an audience
- Demonstrate the use of critical reflection to highlight success and failure in order to progress work
- Evaluate how and why art-making evolves and justify the choices made in their own visual practice

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

- Experiment with different media, materials and techniques in art-making
- Make appropriate choices in the selection of images, media, materials and techniques in art-making
- Demonstrate technical proficiency in the use and application of skills, techniques, media, images, forms and processes
- Produce a body of resolved and unresolved artworks as appropriate to intentions

ASSESSMENT AT A GLANCE

Type of assessment	Format of assessment	Weighting of final grade (%)
External		**60**
Comparative study	• 10–15 screens which examine and compare at least 3 artworks, at least 2 of which need to be by different artists • 3–5 screens which analyse the extent to which the student's work and practices have been influenced by the art and artists examined • A list of sources used	20
Process portfolio	• 13–25 screens which evidence sustained experimentation, exploration, manipulation and refinement of a variety of art-making activities	40
Internal		**40**
Exhibition	• A curatorial rationale that does not exceed 700 words • 8–11 artworks • Exhibition text (stating the title, medium, size and intention) for each artwork	40

VISUAL ARTS STANDARD LEVEL

COURSE DESCRIPTION AND AIMS

The IB Diploma Programme visual arts course encourages students to challenge their own creative and cultural expectations and boundaries. It is a thought-provoking course in which students develop analytical skills in problem-solving and divergent thinking, while working towards technical proficiency and confidence as art-makers. In addition to exploring and comparing visual arts from different perspectives and in different contexts, students are expected to engage in, experiment with and critically reflect upon a wide range of contemporary practices and media. The course is designed for students who want to go on to study visual arts in higher education as well as for those who are seeking lifelong enrichment through visual arts.

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

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

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

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

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

CURRICULUM MODEL OVERVIEW

Syllabus component	
Visual arts in context • Examine and compare the work of artists from different cultural contexts. • Consider the contexts influencing their own work and the work of others. • Make art through a process of investigation, thinking critically and experimenting with techniques. • Apply identified techniques to their own developing work. • Develop an informed response to work and exhibitions they have seen and experienced. • Begin to formulate personal intentions for creating and displaying their own artworks.	50
Visual arts methods • Look at different techniques for making art. • Investigate and compare how and why different techniques have evolved and the processes involved. • Experiment with diverse media and explore techniques for making art. • Develop concepts through processes informed by skills, techniques and media. • Evaluate how their ongoing work communicates meaning and purpose. • Consider the nature of "exhibition", and think about the process of selection and the potential impact of their work on different audiences.	50
Communicating visual arts • Explore ways of communicating through visual and written means. • Make artistic choices about how to most effectively communicate knowledge and understanding. • Produce a body of artwork through a process of reflection and evaluation, showing a synthesis of skill, media and concept. • Select and present resolved works for exhibition. • Explain the ways in which the works are connected. • Discuss how artistic judgments impact the overall presentation.	50
Total teaching hours	**150**

Throughout the course students are required to maintain a visual arts journal. Although sections of the journal will be selected, adapted and presented for assessment, the journal itself is not directly assessed or moderated. It is, however, regarded as a fundamental activity of the course

ASSESSMENT MODEL

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

1. Demonstrate knowledge and understanding of specified content

- Identify various contexts in which the visual arts can be created and presented
- Describe artwork from differing contexts, and identify the ideas, conventions and techniques employed by the art-makers
- Recognize the skills, techniques, media, forms and processes associated with the visual arts
- Present work, using appropriate visual arts language, as appropriate to intentions

2. Demonstrate application and analysis of knowledge and understanding

- Express concepts, ideas and meaning through visual communication
- Analyse artworks from a variety of different contexts
- Apply knowledge and understanding of skills, techniques, media, forms and processes related to art-making

3. Demonstrate synthesis and evaluation

- Critically analyse and discuss artworks created by themselves and others and articulate an informed personal response
- Formulate personal intentions for the planning, development and making of artworks that consider how meaning can be conveyed to an audience
- Demonstrate the use of critical reflection to highlight success and failure in order to progress work
- Evaluate how and why art-making evolves and justify the choices made in their own visual practice

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

- Experiment with different media, materials and techniques in art-making
- Make appropriate choices in the selection of images, media, materials and techniques in art-making
- Demonstrate technical proficiency in the use and application of skills, techniques, media, images, forms and processes
- Produce a body of resolved and unresolved artworks as appropriate to intentions

ASSESSMENT AT A GLANCE

Type of assessment	Format of assessment	Weighting of final grade (%)
External		**60**
Comparative study	• 10–15 screens which examine and compare at least 3 artworks, at least 2 of which should be by different artists • A list of sources used	20
Process portfolio	• 9–18 screens which evidence the student's sustained experimentation, exploration, manipulation and refinement of a variety of art-making activities	40
Internal		**40**
Exhibition	• A curatorial rationale that does not exceed 400 words • 4–7 artworks • Exhibition text (stating the title, medium, size and intention) for each artwork	40

FILM

COURSE DESCRIPTION AND AIMS

The DP film course aims to develop students as proficient interpreters and makers of film texts. Through the study and analysis of film texts, and practical exercises in film production, students develop critical abilities and appreciation of artistic, cultural, historical and global perspectives in film. They examine concepts, theories, practices and ideas from multiple perspectives, challenging their own views to understand and value those of others. Students are challenged to acquire and develop critical thinking, reflective analysis and the imaginative synthesis through practical engagement in the art, craft and study of film.

Students experiment with film and multimedia technology, acquiring the skills and creative competencies required to successfully communicate through the language of the medium. They develop an artistic voice and learn how to express personal perspectives through film. The course emphasizes the importance of working collaboratively, international and intercultural dynamics, and an appreciation of the development of film across time and culture.

The film syllabus allows for greater breadth and depth in teaching and learning at HL through an additional assessment task, requiring HL students to reflect on the core syllabus areas to formulate their own intentions for a completed film. They work collaboratively as a core production team in order to effectively communicate on screen.

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

- explore the various contexts of film and make links to, and between, films, filmmakers and filmmaking techniques (inquiry)
- acquire and apply skills as discerning interpreters of film and as creators of film, working both individually and collaboratively (action)
- develop evaluative and critical perspectives on their own film work and the work of others (reflection).

CURRICULUM MODEL OVERVIEW

Syllabus component	Recommended teaching hours	
	SL	**HL**
Reading film Examine film as an art form, studying a broad range of film texts from a variety of cultural contexts and analysing how film elements combine to create meaning.	45	45
Contextualizing film Explore the evolution of film across time and culture. Examine various areas of film focus in order to recognize the similarities and differences that exist between films from contrasting cultural contexts.	45	45
Exploring film production roles Explore various film production roles through engagement with all phases of the filmmaking process. Acquire, develop and apply skills through filmmaking exercises, experiments and completed films.	60	60
HL only: Collaboratively producing film Focus on the collaborative aspects of filmmaking and experience working in core production teams to fulfill shared artistic intentions. Work in chosen film production roles and contribute to all phases of the filmmaking process to collaboratively create original completed films.		90
Total teaching hours	**150**	**240**

ASSESSMENT MODEL

It is expected that by the end of the film course, students at SL or HL will be able to demonstrate the following.

1. **Knowledge and understanding of specified contexts and processes**

- Identify the film elements associated with conveying meaning in a variety of film texts.
- Formulate personal intentions for work, which arise from both research and artistic endeavour.
- Identify informative moments and examples from their own filmmaking work to support analysis.
- Present ideas, discoveries and learning that arise from both research and practical engagement with films, filmmakers and techniques.

2. **Application and analysis of knowledge and understanding**

- Analyse film from various cultural contexts and explain links between areas of film focus and film elements employed by filmmakers.
- Demonstrate knowledge and understanding of films, filmmakers and their various cultural contexts in order to influence, inform and impact the creation of film work.
- Explore and experiment with a variety of film-production roles in order to understand the associated skills, techniques and processes employed by filmmakers.

3. **Synthesis and evaluation**

- Critically interpret various sources of information in order to support analysis.
- Compare and contrast filmmakers, their films and their various cultural contexts in order to further the understanding of particular areas of film focus.
- Evaluate films created by themselves and others and articulate an informed personal response using appropriate cinematic language and vocabulary.
- Reflect on the process of collaboration and on the successes and challenges encountered as a member of a core production team.

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

- Make appropriate choices in the selection of words, images, sounds and techniques when assembling their own work for presentation.
- Experiment in a variety of film-production roles in order to produce film work that conveys meaning on screen.
- Collaborate effectively with others in the creation of film work.

ASSESSMENT AT A GLANCE

Type of assessment	Weighting of final grade (%)	
	SL	**HL**
External	**60**	**40**
Textual analysis Textual analysis (max 1,750 words) of a prescribed film text based on a chosen extract (max 5 mins), and list of sources.	30	20
Comparative study Recorded multimedia comparative study (max 10 mins), and list of sources.	30	20
Internal	**40**	**60**
Film portfolio Portfolio pages (max 9 pages: 3 pages per production role) and list of sources. A film reel (max 9 mins: 3 mins per production role, including 1 completed film).	40	25
Collaborative film project (HL only) Completed film (max 7 mins). Project report (max 2,000 words) and list of sources.		35

THEORY OF KNOWLEDGE

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.

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.
- **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; and 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.

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.
- **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.

AIMS

The aims of the TOK course are:

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

ASSESSMENT OBJECTIVES

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

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

COURSE OUTLINE

- Core theme: Knowledge and the knower
- This theme provides an opportunity for students to reflect on themselves as knowers and thinkers, and on the different communities of knowers to which we belong.

Optional themes
Students are required to study two optional themes from the following five options.

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

Areas of knowledge
Students are required to study the following five areas of knowledge.

- History
- The human sciences
- The natural sciences
- The arts
- Mathematics

ASSESSMENT VISUAL TOK

External: 67%	**Internal: 33%**
EXTERNAL ASSESSMENT 2/3 (67%)	**INTERNAL ASSESSMENT 1/3 (33%)**
TOK essay on a prescribed title (10 marks) For this component, students are required to write an essay in response to one of the six prescribed titles that are issued by the IB for each examination session. As an external assessment component, it is marked by IB examiners.	**Theory of knowledge exhibition (10 marks)** For this component, students are required to create an exhibition that explores how TOK manifests in the world around us. This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.

THE BBIS HIGH SCHOOL DIPLOMA

HIGH SCHOOL DIPLOMA COURSE REQUIREMENTS

Students at BBIS can choose three pathways to graduation

- IB DP – The International Baccalaureate Diploma Programme
- BBIS High School Diploma + IB DP Certificates
- BBIS High School Diploma

High School Diploma students take The International Baccalaureate Diploma Programme (DP) classes. If High School Diploma students take IB DP certificates in specific subjects they must complete the same assessments and examinations as DP students. If students do not take a DP certificate in the course, their assessments are marked internally and credit will be listed as High School subject Grade 11/12. To graduate with the BBIS High School Diploma, students must take a combination of at least five courses which include:

- two language courses (from groups one or two)
- one course from I&S (group 3)
- once science (group 4)
- one maths course (group 5)

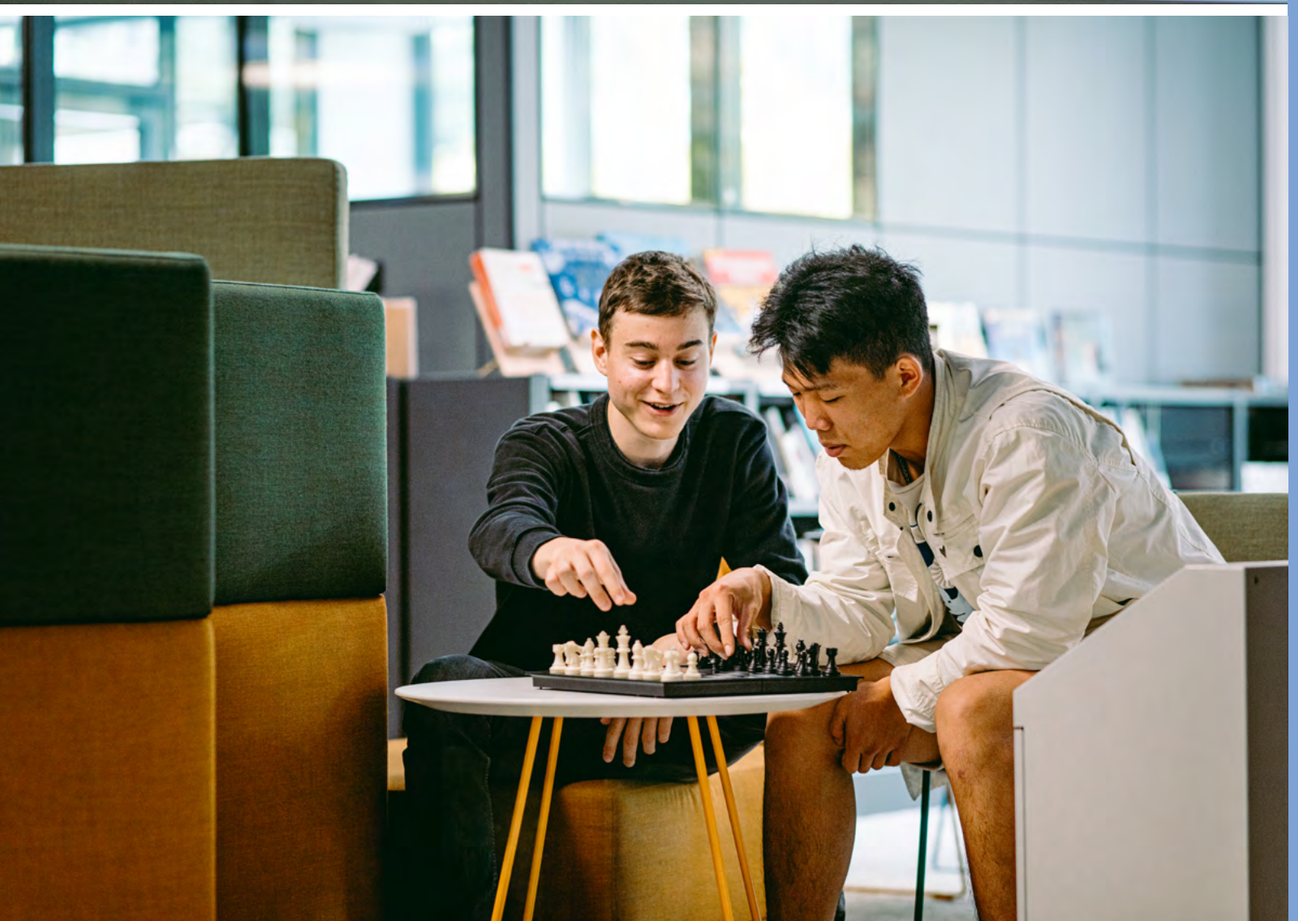
In addition, High School Diploma students must meet the following requirements:

- gain a minimum attendance of 90% for each year of the programme
- pass all courses
- fulfil the CAS requirements for DP
- attend the TOK course
- take at least five courses in each of Grade 11 and 12
- have acquired the following credits during Grades 9 and 12 (one credit is the equivalent of passing a one-year course)

GRADUATION REQUIREMENTS (1 credit = 1 year of a course)	**Credits (Grade 9–12)**
English	4.0
Mathematics	4.0
German, Language Acquisition or a second Language & Literature Subject	4.0
Individuals & Societies	4.0
Science	3.0
PE	2.0
Design	2.0
Art	2.0
Electives	3.0
Total	**28.0**

Students in Grade 11 and 12 are required to enrol in at least 5 classes, which must be Group 1: Studies in Language and Literature, Group 2: Language Acquisition (or a second Group 1), Group 3: Individuals & Societies, Group 4: Sciences, Group 5: Mathematics.

Exemptions to credit requirements are at the discretion of the Secondary Principal.



As of: July 2025

BBIS Berlin Brandenburg International School
Genehmigte Ersatz- und Ganztagsschule Klasse 1–10, Anerkannte Ergänzungsschule Klasse 11–12

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