



*Years 12 and 13  
at  
Dover Court  
International School*



DOVER COURT  
INTERNATIONAL SCHOOL  
A NORD ANGLIA EDUCATION SCHOOL



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## *Welcome to the Sixth Form at DCIS*

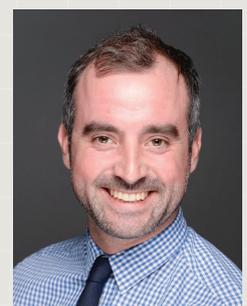
Dover Court International School is founded on the principles of a culture of high standards, high aspirations and active participation. We offer students an emotionally rich and inclusive learning environment where every child is known and every learner supported. At DCIS, we are committed to providing a high quality, challenging, international education at all levels through a framework of high expectations and this shaped our decision to offer the IBDP and BTEC programmes in Years 12 and 13. We offer a range of programmes which support all our learners to reach their chosen destination including the International Baccalaureate Diploma Programme (IBDP), IB Courses or a more career related study through our BTEC Business Programme.

The International Baccalaureate (IB) was founded in 1968, and seeks to provide an international education that develops the intellectual, personal, emotional and social skills needed to live, learn and work in a rapidly changing, intercultural world. Through the IBDP, we develop students who:

- have excellent breadth and depth of knowledge
- flourish physically, intellectually, emotionally and ethically
- study at least two languages
- excel in traditional academic subjects
- explore the nature of knowledge through the programme's unique theory of knowledge course.

The IBDP is an accessible and rewarding programme that provides excellent preparation for university education and employment. IBDP students are valued for their high academic standards and how prepared they are for university. According to UK Higher Education Admissions research, the International Baccalaureate offers the best preparation for University. The Diploma programme ranks top in 14 out of 16 different factors from self-management to intercultural skills, creativity and an ability to cope with pressure. Being able to think and learn independently is the most important factor in students being ready and equipped to thrive at university. In addition, the IB Learner Profile helps students to be critical thinkers who are open-minded, resilient and reflective and have a greater understanding of the wider world. Throughout the programme we encourage our students to study hard and also to become involved in school and community activities through the Creativity, Activity and Service Programme.

The BTEC programme helps students to prepare for higher education, an internship, apprenticeship or a position in a designated field of interest in Business. It provides the opportunity for students to learn about concepts and theories through application and practice, while developing broad - based skills in an authentic and meaningful context. At DCIS, we are able to provide our students with a variety of subjects to suit their interests and requirements, as well as excellent support for all students through the core elements of the Diploma Programme. Our highly qualified and dedicated teachers are well prepared and qualified to help students achieve at the highest levels during the IBDP. We expect our students to commit themselves whole-heartedly to all aspects of school life so that our DCIS Sixth Form will be an enriching and rewarding experience.



**Dominic O'Shea**  
*Head of Sixth Form & IB Coordinator*

## *The four pathways for our Sixth Form students at DCIS*

In Years 12 and 13 we offer a wide range of options and subjects that are designed to allow our students to pursue their interests and strengths in preparation for further study or the first steps of their career. There are four programmes of study available which are detailed below:

- International Baccalaureate Diploma Programme
- International Baccalaureate Courses with 3 Higher Level subjects
- International Baccalaureate Courses
- BTEC International Diploma in Business

Regardless of which programme is selected all students are supported with information and counselling for their next steps, which includes talks from local and international universities, careers fairs and guidance counselling. Throughout the Sixth Form we seek to develop students' academic progress and contribute to shaping their personal development. DCIS students can look forward to a challenging and rewarding programme along with excellent teaching and learning.

Our staff are on hand to assist students and their families with choosing the right programme. Please do take the time to read through the booklet to understand the wealth of opportunities available.

### **Programme 1:**

#### **The International Baccalaureate Diploma Programme**

The IBDP is a broad but challenging programme which provides excellent preparation for university education and life in the real world.

Over the course of the two-year programme, students study six subjects chosen from six subject groups:

- Three subjects are studied at Higher Level (HL)
- Three subjects are studied at Standard Level (SL)
- Plus three core requirements:
  - Extended Essay (EE)
  - Theory of Knowledge (TOK)
  - Creativity, Activity, Service (CAS)

The IBDP admission requirement is at least 5 GCSEs (or their equivalent) at grades 9 – 5 (including English and Maths). For Higher Level Maths, students should achieve a grade 9/8. For Higher Level English Literature, students should have achieved a 7 at GCSE. For science, these grades apply to double and triple award science qualifications, not single award. In addition to this, students will also be expected to have demonstrated a large degree of organisation skills and self-motivation as these are key skills required to succeed on the IBDP. Students should obtain the following grades where they have studied the subject previously:

- For HL options, grade 6 or above at GCSE
- For SL options, grade 5 or above at GCSE

### **Programme 2:**

#### **The International Baccalaureate Courses with 3 Higher Level subjects**

Students studying the IB Courses must choose a minimum of 4 subjects, with at least 3 of these subjects at Higher Level. Students will follow their courses for 2 years and will be examined in exactly the same way as IBDP students; sitting the examinations in May of the second year. IB courses students follow the same curriculum and are assessed and examined in the same way. Students are expected to also meet the requirements of Creativity, Activity and Service (CAS). They can also choose to complete the Extended Essay and Theory Of Knowledge and would receive additional credit for doing so successfully.

The IB Courses admission requirements are that students must have achieved at least 5 GCSEs (or their equivalent) at grades 9 – 5. For students wishing to attend university and/or those studying 3 HL courses, this must include English and Maths. For Higher Level Maths, students should achieve a Grade 9/8, and for Standard Level they should attain a minimum of grade 5 at GCSE. For Higher Level English Literature, students should have achieved a 7 at GCSE. For science, these grades apply to double and triple award science qualifications, not single award. In addition, the subjects they have chosen should be relatable to the GCSEs they have studied; e.g. in order to study Geography at IB, students should have studied it at GCSE. Students should obtain:

- For HL options, grade 6 or above at GCSE
- For SL options, grade 5 or above at GCSE

### Programme 3:

#### The International Baccalaureate Courses

Students studying the IB Courses must choose a minimum of 4 subjects and can choose these at Standard Level or Higher Level. Students will follow their courses for 2 years and will be examined in exactly the same way as IBDP students; sitting the examinations in May of the second year. IB courses students follow the same curriculum and are assessed and examined in the same way. Students are expected to also meet the requirements of Creativity, Activity and Service (CAS). They can also choose to complete the Extended Essay and Theory Of Knowledge and would receive additional credit for doing so successfully.

The IB Courses admission requirements are that students must have achieved at least 5 GCSEs (or their equivalent) at grades 9 – 5. For students wishing to attend university and/or those studying 3 HL courses, this must include English and Maths. For Higher Level Maths, students should achieve a Grade 9/8, and for Standard Level they should get a minimum of grade 5 at GCSE. For Higher Level English Literature, students should have achieved a 7 at GCSE. For science, these grades apply to double and triple award science qualifications, not single award. In addition, the subjects they have chosen should be relatable to the GCSEs they have studied; e.g. in order to study Geography at IB, students should have studied it at GCSE. Students should obtain:

- For HL options, grade 6 or above at GCSE
- For SL options, grade 5 or above at GCSE

### Programme 4:

#### BTEC International Diploma in Business

##### BTEC International Level 2 in Business

The Level 2 qualification is equivalent to four International GCSEs and can lead to either the first step in a career or to the BTEC Level 3 qualification. Students complete core and optional units of study including Business Organisation, Financial Forecasting, Personal Finance, Marketing Planning, Using Office Equipment, Communication Skills and Working in Teams. In addition, students follow Information and Communications Technology (ICT), Presentation Skills and Physical Education. Students also have both guided and independent study time where they can complete assignments and homework.

##### BTEC International Level 3 in Business

The Level 3 qualification is equivalent to two A Levels and can either lead to the first step in a career or to University or Polytechnic study. Students complete core and optional units of study with subjects ranging from Planning a Marketing Campaign, Business Decision Making, Event Planning, Human Resources, Financial Statements, Logistics, Career Planning and Health & Safety. In addition, students will access other curriculum areas to develop key employability skills, as well as having independent and guided study periods.



## Student Feedback on IBDP and BTEC

“ At the start, IB seemed like an extremely daunting adventure I was embarking on. One thing that made me really happy about this course was CAS. In my opinion, it is such a helpful subject which allows a student to continue things your school might not offer in the IB course. For example, the activity element of CAS allows me to stay physically fit and also explore deep-sea diving as an activity. At the same time, it has allowed me to return to the hospital I used to volunteer at and continue my service skills from there. Overall, this course might seem daunting in the start but it brings a lot of positives and at the end of the two years, it is all going to be worth it. ”

Mehr, Year 12

“ I joined DCIS in Year 12 (Sixth Form) and my time here has been absolutely amazing. My decision of joining Dover is one of the best ones I ever made. The teachers, students and staff are so welcoming that you feel like you have been in this school for years. Anyone you meet on campus is more than willing to extend a helping hand. Sixth Form also means the start of your IBDP journey. The curriculum seems very difficult and honestly it is, but once you learn how to manage your time, life becomes quite simple. In the first few weeks of IB, you will be overwhelmed by the amount and type of work you need to do, however eventually you learn to prioritise and get work done. My advice would be to keep discussing whatever you have on your mind with your teachers as they are always ready to offer suggestions from their experience. All in all, the 2 most exciting years of your life. ”

Arnav, Year 12

“ The best thing about BTEC Business is the small and relaxed classroom environment. It doesn't feel competitive or stressful but we get work done with quality. Lessons are very insightful and we learn about the inner workings of businesses. Lessons include real world examples and we learn to work and do research efficiently and independently. I have enjoyed Unit 1 as it opened a new world of business insight which was previously alien to me. I feel very fulfilled as I have found something very interesting to learn. ”

Edgar, Year 12

“ The best thing about studying BTEC Business is it is a good class environment to learn in and engage with the lesson. To me, it has boosted my confidence communicating with other and learning new business key terms. I have enjoyed learning about SMART targets most this year as I know they will be important to know when I start my own business. ”

Arjan, Year 12

“ IB at DCIS has been a wonderful experience so far. We have had a wide range of subject choices, here at DCIS. Besides all the 6 subjects, we also have TOK. I really enjoy the new TOK subject which is part of the IB Diploma Programme. The subject is very open and therefore has lots of room for creativity and personal opinion as there is no right answer. Every answer is correct if it is linked to the concept, the ways of knowing, areas of knowledge and a clear judgement. I feel TOK links well to the IB Learner Profile as the 3 aims of TOK are to think critically, open minded and differently. I feel TOK is having a big impact on me as it is developing the quality of my thoughts, which would lead to development of my overall personality. ”

Ishita, Year 12

“ My genuine greetings from the Year 12 IB student group. My name is Thorin Khaw, or Geroder Koewe and I am currently the Official Student Photographer of selected DCIS events such as UN Day and Sports Day. I recently moved into the IB Diploma from IGCSE, where the current experience in the beginning days in Term 1 of Key Stage 5 have gotten off to a slow but smooth start for me, but expecting a large amount of workload that centres around not only my chosen subjects, but also the IB Diploma where Theory of Knowledge, Extended Essay and CAS are the Three Keys to success in the forthcoming two years that will lie ahead for each and every one of us. The IB Learner's Profile is a crucial component if we are to achieve the best of ourselves in not just our academics, but also our contributions in and out of school through the attributes of Inquiring, having Knowledge, be Thinkers, express Communication, have a Principle, convey Open-Mindedness, show our Care for others, Take Risks out of our comfort zone, have a structured Balance and last but not least, Reflect our choices and actions we make. ”

Thorin, Year 12

“ At Dover Court, there are plenty of opportunities available to nurture and showcase your passions as well as develop your leadership. The teachers are patient, understanding and most importantly, passionate about what they teach - they give life and meaning to it - making me enjoy the subjects so much more than I initially thought I would. Dover Court has a strong culture of inclusivity, and I feel stronger mentally, emotionally and physically because I have my friends and teachers to help and look out for me. ”

Shravana, Year 12



*Course information for  
International Baccalaureate  
Diploma Programme and  
International Baccalaureate  
Course*



# IB learner profile

The aim of all IB programmes is to develop internationally minded people who, recognizing their common humanity and shared guardianship of the planet, help to create a better and more peaceful world.

As IB learners we strive to be:

## INQUIRERS

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

## KNOWLEDGEABLE

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

## THINKERS

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

## COMMUNICATORS

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

## PRINCIPLED

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

## OPEN-MINDED

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

## CARING

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

## RISK-TAKERS

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

## BALANCED

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

## REFLECTIVE

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

The IB learner profile represents 10 attributes valued by IB World Schools. We believe these attributes, and others like them, can help individuals and groups become responsible members of local, national and global communities.

# International Baccalaureate Diploma Programme

## Standard level and higher level courses

### The Diploma Programme model

The IB Diploma Programme (DP) is a rigorous, academically challenging and balanced programme of education designed to prepare students aged 16 to 19 for success at university and in life. The DP aims to encourage students to be knowledgeable, inquiring, caring, open-minded and to develop intercultural understanding and the attitudes necessary to appreciate a range of viewpoints.

The DP provides the opportunity to develop both disciplinary and interdisciplinary knowledge that meets the rigorous standards set by institutions of higher learning around the world.

To ensure both breadth and depth of knowledge and understanding, students choose courses from the following subject groups: studies in language and literature; language acquisition; individuals and societies; sciences; mathematics; and the arts. Most subjects may be taken at either standard level (SL) or higher level (HL).

To earn the full diploma a student must take at least three subjects at HL. In addition, three core elements—the extended essay, theory of knowledge and creativity, activity, service—are compulsory and central to the philosophy of the programme.



### The nature of HL and SL courses

It is essential for any pre university education to equip students with the depth of discipline-specific knowledge and skills that they will need for their chosen academic and career paths. However, this must be balanced with the breadth needed to develop well-rounded students who can draw connections between the different disciplines.

As such, the philosophy of the IB DP is that students should engage with a range of subjects while being able to explore specific areas of personal interest in greater depth. SL courses ensure students are exposed to a range of disciplines that they might otherwise opt out of, and HL courses allow students to spend more time with subjects they are more interested in by exploring options in addition to the SL core curriculum. In this sense, all DP courses, regardless of whether they are SL or HL, are integral to the programme.

### Curriculum and assessment

Both SL and HL courses are meant to span the two years of the DP. SL courses are recommended to have at least 150 hours of instructional time, and HL courses are recommended to have at least 240 instructional hours.

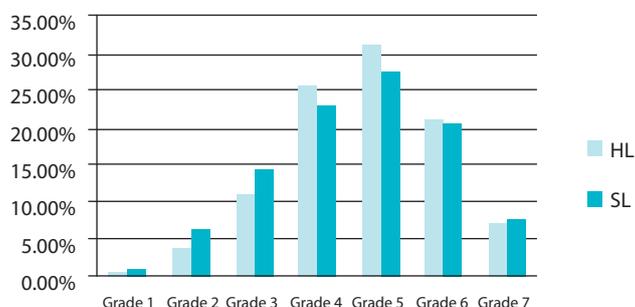
In most cases both SL and HL courses consist of the same educational aims, core syllabus and curriculum and assessment models. HL courses typically also include a range of additional elements designed to allow students to explore areas of interest within the subject in more depth. In this sense, SL courses are not watered down versions of their HL counterparts. The assessment criteria are equally demanding for both levels, and SL exams are marked and standardized with the same rigour as all IB coursework.

## Comparisons with other programme of study

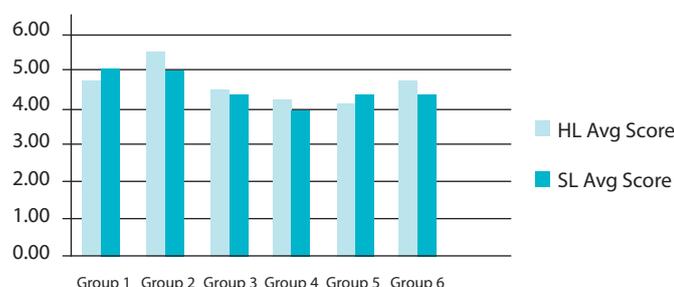
Typically when doing course comparisons, external bodies have compared IB SL courses with the alternative curriculum. Comparisons have been made between SL courses and AP, A level, Australia National Curriculum, Indian boards, Knowledge and Skills for University Success (KSUS) and so on, and in most instances SL courses were found to be as demanding if not more so than the comparative courses.

The below figures on DP student exam performance provide some evidence of the equitability of SL and HL assessments.

HL/SL course grade distributions, May 2014



Average HL/SL grades for each subject group, May 2014



The below example of the DP physics course highlights the nature of the difference in curriculum and assessment between HL and SL courses.

DP physics curriculum components		
Syllabus component	Recommended teaching hours	
	SL	HL
<b>Core</b>	<b>95</b>	
1. Measurements and uncertainties	5	
2. Mechanics	22	
3. Thermal physics	11	
4. Waves	15	
5. Electricity and magnetism	15	
6. Circular motion and gravitation	5	
7. Atomic, nuclear and particle physics	14	
8. Energy production	8	
<b>Additional higher level</b>		<b>60</b>
9. Wave phenomena		17
10. Fields		11
11. Electromagnetic induction		16
12. Quantum and nuclear physics		16
<b>Option (1 of 4)</b>	<b>15</b>	<b>25</b>
<b>A. Relativity</b>	15	25
<b>B. Engineering physics</b>	15	25
<b>C. Imaging</b>	15	25
<b>D. Astrophysics</b>	15	25
<b>Practical scheme of work</b>	<b>40</b>	<b>60</b>
• Practical activities	20	40
• Individual investigation (internal assessment)	10	10
• Group 4 project	10	10
<b>Total teaching hours</b>	<b>150</b>	<b>240</b>

DP physics assessment components				
Component	Overall weighting (%)		Duration (hours)	
	SL	HL	SL	HL
Paper 1	20	20	0.75	1
Paper 2	40	36	1.25	2.25
Paper 3	20	24	1	1.25
Internal assessment	20	20	10	10

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Dixon, M, Charles, C, Moss, J, Hubber, P and Pitt, P. 2014. The International Baccalaureate Diploma Programme: Alignment with the Australian Curriculum and Australian Qualifications Framework. Bethesda, MD, USA. International Baccalaureate Organization.

Geetha, T. 2009. Comparative Curriculum Analysis of the IB Diploma course and the CBSE and the CISCE for their senior school examination courses. Central Institute of Education, University of Delhi.

Office of Qualifications and Examinations Regulation (OFQUAL), 2012. International comparisons in senior secondary assessment. <http://dera.ioe.ac.uk/14715/>

Qualifications and Curriculum Authority (QCA), 2003. Comparability between GCE and International Baccalaureate examinations: <http://webarchive.nationalarchives.gov.uk/+www.ofqual.gov.uk/308.aspx>

For further examples of curriculum and assessment requirements for specific DP HL and SL courses, subject briefs for all courses are available at: <http://www.ibo.org/en/university-admission/recognition-of-the-ib-diploma-by-countries-and-universities/ib-recognition-resources-and-document-library/>

# International Baccalaureate Diploma Programme Subject Brief

## Creativity, activity, service

For students graduating in 2017 and after



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

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

These DP subject briefs illustrate four key course components.

- I. Description and aims
- II. Programme overview



- III. Learning outcomes
- IV. Sample projects

## I. Description and aims

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

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

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

CAS aims to develop students who:

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

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

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

## II. Programme overview

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

A CAS experience must:

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

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

Typically, students' service experiences involve the following stages.

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

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

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

### III. Learning outcomes

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

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

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

### IV. Sample projects

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

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

For further information on the IB Diploma Programme, visit: [www.ibo.org/en/programmes/diploma-programme/](http://www.ibo.org/en/programmes/diploma-programme/).

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

For more on how the DP prepares students for success at university, visit: [www.ibo.org/en/university-admission](http://www.ibo.org/en/university-admission) or email: [recognition@ibo.org](mailto:recognition@ibo.org).

# International Baccalaureate Diploma Programme Subject Brief

## Diploma Programme Core:

### Extended essay, including the world studies option

First assessment 2018



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

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

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



These DP subject briefs illustrate four key course components.

I. Course description and aims

II. Overview of the extended essay process

III. Assessment model

IV. Sample extended essay topics

## I. Course description and aims

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

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

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

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

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

## II. Overview of the extended essay process

### The extended essay process

#### The research process

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

### Writing and formal presentation

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

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

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

### Reflection process

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

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

The viva voce serves as:

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

## III. Assessment model

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

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

## Assessment at a glance

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

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

## IV. Sample extended essay topics

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

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# International Baccalaureate Diploma Programme Subject Brief

## Diploma Programme core: Theory of knowledge

First assessments 2022—last assessments 2029

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

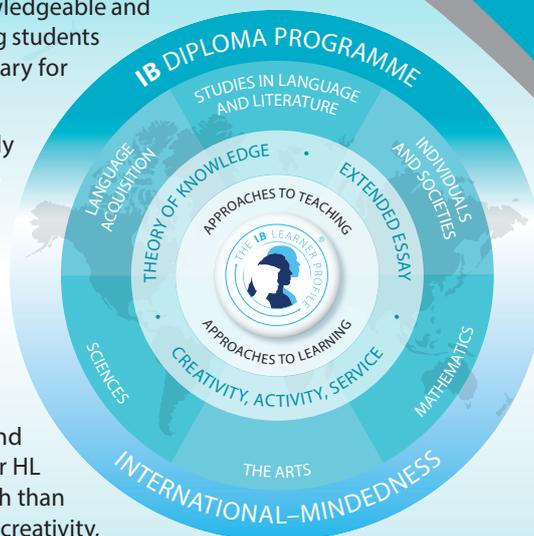
The course is presented as six academic areas enclosing a central core. Students study two modern languages (or a modern language and a classical language), a humanities or social science subject, an experimental science, mathematics and one of the creative arts. Instead of an arts subject, students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

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

These DP subject briefs illustrate four key course components.

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

- III. Assessment model
- IV. Sample questions



## I. Course description and aims

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

The aims of the DP **theory of knowledge** course are:

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

## II. Curriculum model overview

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

### III. Assessment model

Students are required to complete **two** assessment tasks for theory of knowledge:

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

#### Assessment objectives

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

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

#### Assessment details

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

### IV. Sample questions

#### Specimen essay titles

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

#### Sample exhibition prompts

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

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# International Baccalaureate Diploma Programme Subject Brief

## Language A: language and literature

First assessments for SL and HL—2021

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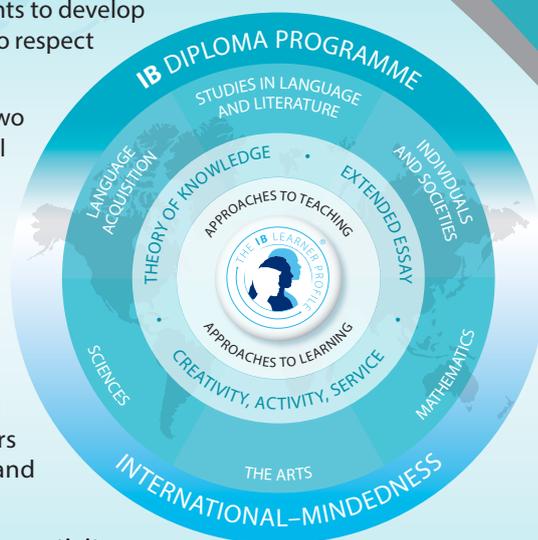
The course is presented as six academic areas enclosing a central core. Students study two modern languages (or a modern language and a classical language), a humanities or social science subject, an experimental science, mathematics and one of the creative arts. Instead of an arts subject, students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

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

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

This IB DP subject brief has three key components:

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



## I. Course description and aims

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

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

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

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

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

## II. Curriculum model overview

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

### III. Assessment model

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

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

### Assessment at a glance

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

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# International Baccalaureate Diploma Programme Subject Brief

## Language ab initio

First assessment 2020

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

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

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

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

This IB DP subject brief has four key components:

I. Course description and aims

II. Curriculum model overview

III. Assessment model

IV. Content outline



## I. Course description and aims

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

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

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

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

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

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

## II. Curriculum model overview

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

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

Communication is evidenced through receptive, productive and interactive skills.

### III. Assessment model

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

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

### Assessment at a glance

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

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

### IV. Content outline

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

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# International Baccalaureate Diploma Programme Subject Brief

## Language B

First assessment 2020

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

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

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

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

This IB DP subject brief has four key components:

I. Course description and aims

II. Curriculum model overview

III. Assessment model

IV. Content outline



## I. Course description and aims

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

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

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

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

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

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

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

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

## II. Curriculum model overview

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

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

Communication is evidenced through receptive, productive and interactive skills.

## III. Assessment model

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

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

## Assessment at a glance

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

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

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

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

## IV. Content outline

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

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# International Baccalaureate Diploma Programme Subject Brief

## Individuals and societies:

### Business management— Standard level

First assessments 2016 – Last assessments 2022

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

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



These IB DP subject briefs illustrate four key course components.

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

- III. Assessment model
- IV. Sample questions

## I. Course description and aims

The business management course is designed to develop students' knowledge and understanding of business management theories, as well as their ability to apply a range of tools and techniques. Students learn to analyse, discuss and evaluate business activities at local, national and international levels. The course covers a range of organizations from all sectors, as well as the sociocultural and economic contexts in which those organizations operate.

The course covers the key characteristics of business organization and environment, and the business functions of human resource management, finance and accounts, marketing and operations management. Through the exploration of six underpinning concepts (change, culture, ethics, globalization, innovation and strategy), the course allows students to develop a holistic understanding of today's complex and dynamic business environment. The conceptual learning is firmly anchored in business management theories, tools and techniques and placed in the context of real world examples and case studies.

The course encourages the appreciation of ethical concerns, at both a local and global level. It aims to develop relevant and transferable skills, including the ability to: think critically; make ethically sound and well-informed decisions; appreciate the pace, nature and significance of change; think strategically; and undertake long term planning, analysis and evaluation. The course also develops subject-specific skills, such as financial analysis.

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

1. encourage a holistic view of the world of business
2. empower students to think critically and strategically about individual and organizational behaviour

3. promote the importance of exploring business issues from different cultural perspectives
4. enable the student to appreciate the nature and significance of change in a local, regional and global context
5. promote awareness of the importance of environmental, social and ethical factors in the actions of individuals and organizations
6. develop an understanding of the importance of innovation in a business environment.

## II. Curriculum model overview

Component	Recommended teaching hours
<b>Unit 1: Business organization and environment</b>	<b>40</b>
1.1 Introduction to business management	
1.2 Types of organizations	
1.3 Organizational objectives	
1.4 Stakeholders	
1.5 External environment	
1.6 Growth and evolution	
<b>Unit 2: Human resource management</b>	<b>15</b>
2.1 Functions and evolution of human resource management	
2.2 Organizational structure	
2.3 Leadership and management	
2.4 Motivation	

<b>Unit 3: Finance and accounts</b>	<b>35</b>
3.1 Sources of finance	
3.2 Costs and revenues	
3.3 Break-even analysis	
3.4 Final accounts (some HL only)	
3.5 Profitability and liquidity ratio analysis	
3.6 Cash flow	
3.7 Investment appraisal (some HL only)	
<b>Unit 4: Marketing</b>	<b>35</b>
4.1 The role of marketing	
4.2 Marketing planning (including introduction to the four Ps)	
4.3 Market research	
4.4 The four Ps (product, price, promotion, place)	
4.5 E-commerce	
<b>Unit 5: Operations management</b>	<b>10</b>
5.1 The role of operations management	
5.2 Production methods	
5.3 Location	
<b>Internal assessment</b>	<b>15</b>

### III. Assessment model

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

- Demonstrate knowledge and understanding of:
  - the business management tools, techniques and theories specified in the syllabus content
  - the six concepts that underpin the subject
  - real-world business problems, issues and decisions
- Demonstrate application and analysis of:
  - knowledge and skills to a variety of real-world and fictional business situations
  - business decisions by explaining the issue(s) at stake, selecting and interpreting data, and applying appropriate tools, techniques, theories and concepts
- Demonstrate synthesis and evaluation of:
  - business strategies and practices, showing evidence of critical thinking
  - business decisions, formulating recommendations
- Demonstrate a variety of appropriate skills to:
  - produce well-structured written material using business terminology
  - select and use quantitative and qualitative business tools, techniques and methods
  - select and use business material, from a range of primary and secondary sources.

### Assessment at a glance

Type of assessment	Format of assessment	Time (hours)	Weighting of final grade (%)
External		3	75
Paper 1	Structured questions	1.25	35
Paper 2	Structured and extended response questions	1.75	40
Internal		15	25
Written commentary	Students produce a written commentary based on three to five supporting documents about a real issue or problem facing a particular organization. Maximum 1,500 words.	15	25

### IV. Sample questions

- Apply the Boston Consulting Group (BCG) matrix to B-Pharma's product portfolio.
- Examine possible strategies for Dan Electro to prevent cash flow difficulties.
- With reference to one organization that you have studied, examine what changes globalization brings about in the management of human resources.

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# International Baccalaureate Diploma Programme Subject Brief

## Individuals and societies:

### Business management—Higher level

First assessments 2016 – Last assessments 2022

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

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

These IB DP subject briefs illustrate four key course components.

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



- III. Assessment model
- IV. Sample questions

## I. Course description and aims

The business management course is designed to develop students' knowledge and understanding of business management theories, as well as their ability to apply a range of tools and techniques. Students learn to analyse, discuss and evaluate business activities at local, national and international levels. The course covers a range of organizations from all sectors, as well as the sociocultural and economic contexts in which those organizations operate.

The course covers the key characteristics of business organization and environment, and the business functions of human resource management, finance and accounts, marketing and operations management. Links between the topics are central to the course. Through the exploration of six underpinning concepts (change, culture, ethics, globalization, innovation and strategy), the course allows students to develop a holistic understanding of today's complex and dynamic business environment. The conceptual learning is firmly anchored in business management theories, tools and techniques and placed in the context of real world examples and case studies.

The course encourages the appreciation of ethical concerns at both a local and global level. It aims to develop relevant and transferable skills, including the ability to: think critically; make ethically sound and well-informed decisions; appreciate the pace, nature and significance of change; think strategically; and undertake long-term planning, analysis and evaluation. The course also develops subject-specific skills, such as financial analysis.

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

1. encourage a holistic view of the world of business
2. empower students to think critically and strategically about individual and organizational behaviour
3. promote the importance of exploring business issues from different cultural perspectives
4. enable the student to appreciate the nature and significance of change in a local, regional and global context
5. promote awareness of the importance of environmental, social and ethical factors in the actions of individuals and organizations
6. develop an understanding of the importance of innovation in a business environment.

## II. Curriculum model overview

Component	Recommended teaching hours
<b>Unit 1: Business organization and environment</b>	<b>50</b>
1.1 Introduction to business management	
1.2 Types of organizations	
1.3 Organizational objectives	
1.4 Stakeholders	
1.5 External environment	
1.6 Growth and evolution	
1.7 Organizational planning tools	

<b>Unit 2: Human resource management</b> 2.1 Functions and evolution of human resource management 2.2 Organizational structure 2.3 Leadership and management 2.4 Motivation 2.5 Organizational (corporate) culture 2.6 Industrial/employee relations	<b>30</b>
<b>Unit 3: Finance and accounts</b> 3.1 Sources of finance 3.2 Costs and revenues 3.3 Break-even analysis 3.4 Final accounts 3.5 Profitability and liquidity ratio analysis 3.6 Efficiency ratio analysis 3.7 Cash flow 3.8 Investment appraisal 3.9 Budgets	<b>50</b>
<b>Unit 4: Marketing</b> 4.1 The role of marketing 4.2 Marketing planning (including introduction to the four Ps) 4.3 Sales forecasting 4.4 Market research 4.5 The four Ps (product, price, promotion, place) 4.6 The extended marketing mix of seven Ps 4.7 International marketing 4.8 E-commerce	<b>50</b>
<b>Unit 5: Operations management</b> 5.1 The role of operations management 5.2 Production methods 5.3 Lean production and quality management 5.4 Location 5.5 Production planning 5.6 Research and development 5.7 Crisis management and contingency planning	<b>30</b>
<b>Internal assessment</b>	<b>30</b>

### III. Assessment model

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

- Demonstrate knowledge and understanding of:
  - the business management tools, techniques and theories specified in the syllabus content
  - the six concepts that underpin the subject
  - real-world business problems, issues and decisions
  - the HL extension topics.

- Demonstrate application and analysis of:
  - knowledge and skills to a variety of real-world and fictional business situations
  - business decisions by explaining the issue(s) at stake, selecting and interpreting data, and applying appropriate tools, techniques, theories and concepts
  - the HL extension topics.
- Demonstrate synthesis and evaluation of:
  - business strategies and practices, showing evidence of critical thinking
  - business decisions, formulating recommendations
  - the HL extension topics.
- Demonstrate a variety of appropriate skills to:
  - produce well-structured written material using business terminology
  - select and use quantitative and qualitative business tools, techniques and methods
  - select and use business material, from a range of primary and secondary sources.

### Assessment at a glance

Type of assessment	Format of assessment	Time (hours)	Weighting of final grade (%)
External		4.5	75
Paper 1	Structured and extended response questions	2.25	35
Paper 2	Structured and extended response questions	2.25	40
Internal		30	25
Research project	Students research and report on an issue facing an organization or a decision to be made by an organization (or several organizations). Maximum 2,000 words.	30	25

### IV. Sample questions

- Analyse the appropriateness of a cost-plus pricing strategy for B-Pharma's drugs.
- Evaluate the effectiveness of the democratic leadership style of the partners at Hands.
- With reference to one or two organization(s) that you have studied, discuss how marketing strategies may differ in two cultures that you are familiar with.

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# International Baccalaureate Diploma Programme Subject Brief

## Individuals and societies: Economics—standard level

First assessments 2022—last assessments 2029

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

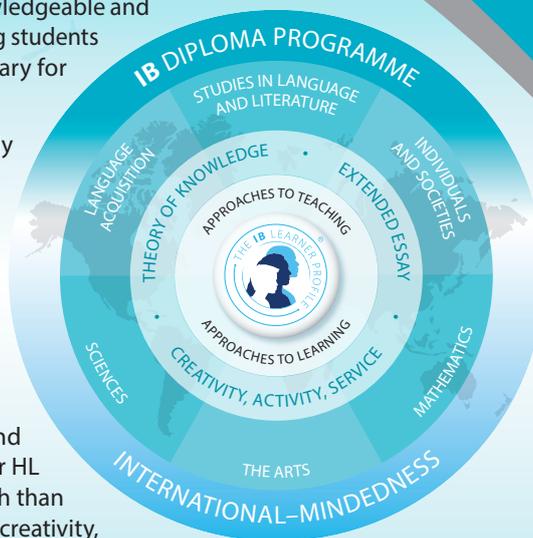
The course is presented as six academic areas enclosing a central core. Students study two modern languages (or a modern language and a classical language), a humanities or social science subject, an experimental science, mathematics and one of the creative arts. Instead of an arts subject, students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

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

These DP subject briefs illustrate four key course components.

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

- III. Assessment model
- IV. Sample questions



### I. Course description and aims

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

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

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

### II. Curriculum model overview

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

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

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

### III. Assessment model

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

#### Assessment objective 1: Knowledge and understanding

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

#### Assessment objective 2: Application and analysis

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

#### Assessment objective 3: Synthesis and evaluation

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

#### Assessment objective 4: Use and application of appropriate skills

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

### IV. Sample questions

#### Paper 1

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

#### Paper 2

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

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# International Baccalaureate Diploma Programme Subject Brief

## Individuals and societies: Economics—higher level

First assessments 2022—last assessments 2029

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

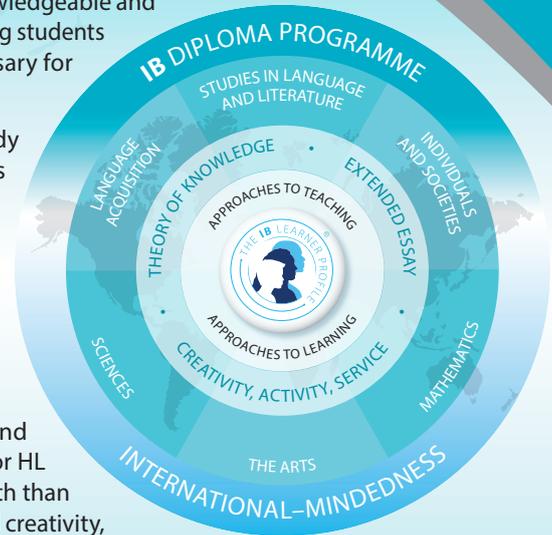
The course is presented as six academic areas enclosing a central core. Students study two modern languages (or a modern language and a classical language), a humanities or social science subject, an experimental science, mathematics and one of the creative arts. Instead of an arts subject, students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

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

These DP subject briefs illustrate four key course components.

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

- III. Assessment model
- IV. Sample questions



## I. Course description and aims

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

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

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

## II. Curriculum model overview

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

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

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

### III. Assessment model

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

#### Assessment objective 1: Knowledge and understanding

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

#### Assessment objective 2: Application and analysis

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

#### Assessment objective 3: Synthesis and evaluation

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

#### Assessment objective 4: Use and application of appropriate skills

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

### IV. Sample questions

#### Paper 1

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

#### Paper 2

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

#### Paper 3

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

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# International Baccalaureate Diploma Programme Subject Brief

## Individuals and societies: Geography

First assessments 2019



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

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

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

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

- III. Assessment model
- IV. Sample questions



### I. Course description and aims

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

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

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

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

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

### II. Curriculum model overview

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

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

## Assessment at a glance

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

## III. Assessment model

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

### 1. Demonstrate knowledge and understanding of specified content

- between areas of film focus and film elements employed by
- the core theme—global change
- two optional themes at SL and three optional themes at HL
- at HL, the HL extension—global interactions
- in internal assessment, a specific geographic research topic.

### 2. Demonstrate application and analysis of knowledge and understanding

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

### 3. Demonstrate synthesis and evaluation

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

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

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

## IV. Sample questions

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

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# International Baccalaureate Diploma Programme Subject Brief

## Individuals and societies: History—standard level

First assessments 2017—last assessments 2025

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



These DP subject briefs illustrate four key course components.

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

- III. Assessment model
- IV. Sample questions

### I. Course description and aims

The DP history course is a world history course based on a comparative and multi-perspective approach to history. It involves the study of a variety of types of history, including political, economic, social and cultural, and provides a balance of structure and flexibility.

The course emphasizes the importance of encouraging students to think historically and to develop historical skills as well as gaining factual knowledge. It puts a premium on developing the skills of critical thinking, and on developing an understanding of multiple interpretations of history. In this way, the course involves a challenging and demanding critical exploration of the past. Teachers explicitly teach thinking and research skills such as comprehension, text analysis, transfer, and use of primary sources.

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

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

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

- develop an understanding of history as a discipline and to develop historical consciousness including a sense of chronology and context, and an understanding of different historical perspectives
- develop key historical skills, including engaging effectively with sources
- increase students' understanding of themselves and of contemporary society by encouraging reflection on the past.

### II. Curriculum model overview

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

<b>World history topics</b> <b>Two of the following, using topic examples from more than one region of the world:</b> <ol style="list-style-type: none"> <li>1. Society and economy (750–1400)</li> <li>2. Causes and effects of medieval wars (750–1500)</li> <li>3. Dynasties and rulers (750–1500)</li> <li>4. Societies in transition (1400–1700)</li> <li>5. Early Modern states (1450–1789)</li> <li>6. Causes and effects of Early Modern wars (1500–1750)</li> <li>7. Origins, development and impact of industrialization (1750–2005)</li> <li>8. Independence movements (1800–2000)</li> <li>9. Evolution and development of democratic states (1848–2000)</li> <li>10. Authoritarian states (20th century)</li> <li>11. Causes and effects of 20th-century wars</li> <li>12. The Cold War: Superpower tensions and rivalries (20th century)</li> </ol>	<b>90</b>
<b>Internal assessment</b> Historical investigation	<b>20</b>

**Assessment objective 4: Use and application of appropriate skills**

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

**Assessment at a glance**

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

**III. Assessment model**

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

**Assessment objective 1: Knowledge and understanding**

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

**Assessment objective 2: Application and analysis**

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

**Assessment objective 3: Synthesis and evaluation**

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

**IV. Sample questions**

Paper 2 (HL and SL)

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

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# International Baccalaureate Diploma Programme Subject Brief

## Individuals and societies: History—higher level

First assessments 2017—last assessments 2025

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

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



These DP subject briefs illustrate four key course components.

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

- III. Assessment model
- IV. Sample questions

### I. Course description and aims

The DP history course is a world history course based on a comparative and multi-perspective approach to history. It involves the study of a variety of types of history, including political, economic, social and cultural, and provides a balance of structure and flexibility.

The course emphasizes the importance of encouraging students to think historically and to develop historical skills as well as gaining factual knowledge. It puts a premium on developing the skills of critical thinking, and on developing an understanding of multiple interpretations of history. In this way, the course involves a challenging and demanding critical exploration of the past. Teachers explicitly teach thinking and research skills such as comprehension, text analysis, transfer, and use of primary sources.

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

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

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

- develop an understanding of history as a discipline and to develop historical consciousness including a sense of chronology and context, and an understanding of different historical perspectives
- develop key historical skills, including engaging effectively with sources
- increase students' understanding of themselves and of contemporary society by encouraging reflection on the past.

### II. Curriculum model overview

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

<b>World history topics</b> <b>Two of the following, using topic examples from more than one region of the world:</b> <ol style="list-style-type: none"> <li>1. Society and economy (750–1400)</li> <li>2. Causes and effects of medieval wars (750–1500)</li> <li>3. Dynasties and rulers (750–1500)</li> <li>4. Societies in transition (1400–1700)</li> <li>5. Early Modern states (1450–1789)</li> <li>6. Causes and effects of Early Modern wars (1500–1750)</li> <li>7. Origins, development and impact of industrialization (1750–2005)</li> <li>8. Independence movements (1800–2000)</li> <li>9. Evolution and development of democratic states (1848–2000)</li> <li>10. Authoritarian states (20th century)</li> <li>11. Causes and effects of 20th-century wars</li> <li>12. The Cold War: Superpower tensions and rivalries (20th century)</li> </ol>	<b>90</b>
<b>HL options: Depth studies</b> <b>One of the following:</b> <ol style="list-style-type: none"> <li>1. History of Africa and the Middle East</li> <li>2. History of the Americas</li> <li>3. History of Asia and Oceania</li> <li>4. History of Europe</li> </ol>	<b>90</b>
<b>Internal assessment</b> Historical investigation	<b>20</b>

#### Assessment objective 4: Use and application of appropriate skills

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

#### Assessment at a glance

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

### III. Assessment model

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

#### Assessment objective 1: Knowledge and understanding

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

#### Assessment objective 2: Application and analysis

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

#### Assessment objective 3: Synthesis and evaluation

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

### IV. Sample questions

Paper 1

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

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

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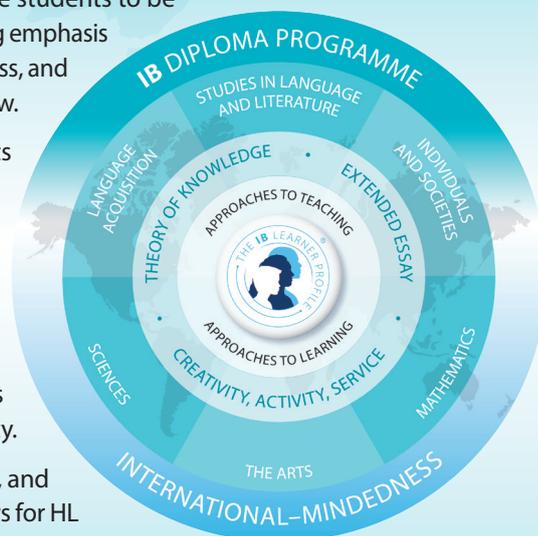
## Individuals and societies: Digital society

First assessment 2024

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

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

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



### I. Course description and aims

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

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

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

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

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

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

## II. Curriculum model overview

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

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

## III. Assessment model

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

### Understand, apply, analyse, evaluate and synthesize:

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

### Develop and refine digital society skills including:

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

## Assessment at a glance

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

## IV. Sample questions

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

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# International Baccalaureate Diploma Programme Subject Brief

## Individuals and societies: Psychology

First assessment 2019

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

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

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

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

This IB DP subject brief has four key components:

I. Course description and aims

II. Curriculum model overview

III. Assessment model

IV. Sample questions



## I. Course description and aims

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

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

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

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

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

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

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

## II. Curriculum model overview

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

## III. Assessment model

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

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

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

## Assessment at a glance

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

## IV. Sample questions

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

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# International Baccalaureate Diploma Programme Subject Brief

Sciences:

Biology—Standard level

First assessments 2016 – Last assessments 2022

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



These IB DP subject briefs illustrate four key course components.

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

- III. Assessment model
- IV. Sample questions

## I. Course description and aims

Biology is the study of life. The vast diversity of species makes biology both an endless source of fascination and a considerable challenge. Biologists attempt to understand the living world at all levels from the micro to the macro using many different approaches and techniques. Biology is still a young science and great progress is expected in the 21st century. This progress is important at a time of growing pressure on the human population and the environment.

By studying biology in the DP students should become aware of how scientists work and communicate with each other. While the scientific method may take on a wide variety of forms, it is the emphasis on a practical approach through experimental work that characterizes the sciences. Teachers provide students with opportunities to design investigations, collect data, develop manipulative skills, analyse results, collaborate with peers and evaluate and communicate their findings

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

1. appreciate scientific study and creativity within a global context through stimulating and challenging opportunities
2. acquire a body of knowledge, methods and techniques that characterize science and technology
3. apply and use a body of knowledge, methods and techniques that characterize science and technology
4. develop an ability to analyse, evaluate and synthesize scientific information
5. develop a critical awareness of the need for, and the value of, effective collaboration and communication during scientific activities

6. develop experimental and investigative scientific skills including the use of current technologies
7. develop and apply 21st century communication skills in the study of science
8. become critically aware, as global citizens, of the ethical implications of using science and technology
9. develop an appreciation of the possibilities and limitations of science and technology
10. develop an understanding of the relationships between scientific disciplines and their influence on other areas of knowledge.

## II. Curriculum model overview

Component	Recommended teaching hours
<b>Core</b>	<b>95</b>
1. Cell biology	15
2. Molecular biology	21
3. Genetics	15
4. Ecology	12
5. Evolution and biodiversity	12
6. Human physiology	20
<b>Option (choice of 1 out of 4)</b>	<b>15</b>
1. Neurobiology and behaviour	15
2. Biotechnology and bioinformatics	15
3. Ecology and conservation	15
4. Human physiology	15

<b>Practical scheme of work</b>	<b>40</b>
Prescribed and other practical activities	20
Individual investigation	10
Group 4 project	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 of knowledge. The emphasis is on interdisciplinary cooperation and the scientific processes.

## III. Assessment model

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

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

## Assessment at a glance

Type of assessment	Format of assessment	Time (hours)	Weighting of final grade (%)
External		3	80
Paper 1	30 multiple-choice questions	0.75	20
Paper 2	Data-based, short answer and extended response questions	1.25	40
Paper 3	Data-based, short answer and extended response questions	1	20
Internal		10	20
Individual investigation	Investigation and write-up of 6 to 12 pages	10	20

## IV. Sample questions

- Cyclins were discovered by Timothy R. Hunt in 1982 while studying sea urchins. What is a function of cyclins? (Paper 1)
- Antibiotics can be used to treat bacterial infections in human tissues because of differences in cell structure between prokaryotes and eukaryotes.
  - o Distinguish between the structure of prokaryotes and eukaryotes.
  - o Evaluate the drug tests that Florey and Chain carried out on penicillin.
  - o Explain the reasons for the ineffectiveness of antibiotics in the treatment of viral diseases. (Paper 2)
- The company BASF produces a genetically modified potato called Amflora. Outline the purpose of modifying the potato. (Paper 3)

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# International Baccalaureate Diploma Programme Subject Brief

Sciences:

Biology—Higher level

First assessments 2016 – Last assessments 2022

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

These IB DP subject briefs illustrate four key course components.

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

- III. Assessment model
- IV. Sample questions



## I. Course description and aims

Biology is the study of life. The vast diversity of species makes biology both an endless source of fascination and a considerable challenge. Biologists attempt to understand the living world at all levels from the micro to the macro using many different approaches and techniques. Biology is still a young science and great progress is expected in the 21st century. This progress is important at a time of growing pressure on the human population and the environment.

By studying biology in the DP students should become aware of how scientists work and communicate with each other. While the scientific method may take on a wide variety of forms, it is the emphasis on a practical approach through experimental work that characterizes the sciences. Teachers provide students with opportunities to design investigations, collect data, develop manipulative skills, analyse results, collaborate with peers and evaluate and communicate their findings.

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

1. appreciate scientific study and creativity within a global context through stimulating and challenging opportunities
2. acquire a body of knowledge, methods and techniques that characterize science and technology
3. apply and use a body of knowledge, methods and techniques that characterize science and technology
4. develop an ability to analyse, evaluate and synthesize scientific information
5. develop a critical awareness of the need for, and the value of, effective collaboration and communication during scientific activities

6. develop experimental and investigative scientific skills including the use of current technologies
7. develop and apply 21st century communication skills in the study of science
8. become critically aware, as global citizens, of the ethical implications of using science and technology
9. develop an appreciation of the possibilities and limitations of science and technology
10. develop an understanding of the relationships between scientific disciplines and their influence on other areas of knowledge.

## II. Curriculum model overview

Component	Recommended teaching hours
<b>Core</b>	<b>95</b>
1. Cell biology	15
2. Molecular biology	21
3. Genetics	15
4. Ecology	12
5. Evolution and biodiversity	12
6. Human physiology	20
<b>Additional higher level</b>	<b>60</b>
7. Nucleic acids	9
8. Metabolism, cell respiration and photosynthesis	14
9. Plant biology	13
10. Genetics and evolution	8
11. Animal physiology	16

<b>Option (Choice of one out of four)</b>	<b>25</b>
A. Neurobiology and behaviour	25
B. Biotechnology and bioinformatics	25
C. Ecology and conservation	25
D. Human physiology	25
<b>Practical scheme of work</b>	<b>60</b>
Prescribed and other practical activities	40
Individual investigation	10
Group 4 project	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

## III. Assessment model

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

- Demonstrate knowledge and understanding of:
  - facts, concepts, and terminology
  - methodologies and techniques
  - communicating scientific information.
- Apply:
  - facts, concepts, and terminology
  - methodologies and techniques
  - methods of communicating scientific information.
- Formulate, analyse and evaluate:
  - hypotheses, research questions and predictions
  - methodologies and techniques
  - primary and secondary data
  - scientific explanations.
- Demonstrate the appropriate research, experimental, and personal 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 (%)
External		4.5	80
Paper 1	40 multiple-choice questions	1	20
Paper 2	Data-based, short answer and extended response questions	2.25	36
Paper 3	Data-based, short answer and extended response questions	1.25	24
Internal		10	20
Individual investigation	Investigation and write-up of 6 to 12 pages	10	20

## IV. Sample questions

- Membrane proteins of mice cells were marked with green and membrane proteins of human cells were marked with red. The cells were fused together. What would be seen after two hours? (Paper 1)
- The species is the basis for naming and classifying organism.
  - Explain how new species can emerge by
    - directional selection
    - disruptive selection
    - polyploidy.
  - Outline the advantages to scientists of the binomial system for naming species.
  - Describe the use of dichotomous keys for the identification of specimens. (Paper 2)
- Brain death is a clinical diagnosis based on the absence of neurological function, with a known irreversible cause of coma.
  - Explain a named method to assess brain damage.
  - Distinguish between a reflex arc and other responses by the nervous system.
  - Describe the events that occur in the nervous system when something very hot is touched. (Paper 3)

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# International Baccalaureate Diploma Programme Subject Brief

Sciences:

Chemistry—Standard level

First assessments 2016 – Last assessments 2022

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

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

These IB DP subject briefs illustrate four key course components.

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



- III. Assessment model
- IV. Sample questions

## I. Course description and aims

Chemistry is an experimental science that combines academic study with the acquisition of practical and investigational skills. Chemical principles underpin both the physical environment in which we live and all biological systems. Chemistry is often a prerequisite for many other courses in higher education, such as medicine, biological science and environmental science.

Both theory and practical work should be undertaken by all students as they complement one another naturally, both in school and in the wider scientific community. The DP chemistry course allows students to develop a wide range of practical skills and to increase facility in the use of mathematics. It also allows students to develop interpersonal and information technology skills, which are essential to life in the 21st century.

By studying chemistry students should become aware of how scientists work and communicate with each other. While the scientific method may take on a wide variety of forms, it is the emphasis on a practical approach through experimental work that characterizes the subject. Teachers provide students with opportunities to develop manipulative skills, design investigations, collect data, analyse results and evaluate and communicate their findings.

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

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

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

## II. Curriculum model overview

Component	Recommended teaching hours
<b>Core</b>	<b>95</b>
1. Stoichiometric relationships	13.5
2. Atomic structure	6
3. Periodicity	6
4. Chemical bonding and structure	13.5
5. Energetics/thermochemistry	9
6. Chemical kinetics	7
7. Equilibrium	4.5
8. Acids and bases	6.5
9. Redox processes	8
10. Organic chemistry	11
11. Measurement and data processing	10

<b>Option (choice of one out of four)</b>	<b>15</b>
A. Materials	15
B. Biochemistry	15
C. Energy	15
D. Medicinal chemistry	15
<b>Practical scheme of work</b>	<b>40</b>
Prescribed and other practical activities	20
Individual investigation (internally assessed)	10
Group 4 project	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 of knowledge. The emphasis is on interdisciplinary cooperation and the scientific processes.

### III. Assessment model

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

- Demonstrate knowledge and understanding of:
  - facts, concepts, and terminology
  - methodologies and techniques
  - communicating scientific information.
- Apply:
  - facts, concepts, and terminology
  - methodologies and techniques
  - methods of communicating scientific information.
- Formulate, analyse and evaluate:
  - hypotheses, research questions and predictions
  - methodologies and techniques
  - primary and secondary data
  - scientific explanations.
- Demonstrate the appropriate research, experimental, and personal 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 (%)
External		3	80
Paper 1	30 multiple-choice questions (Core)	0.75	20
Paper 2	Short answer and extended response questions (Core)	1.25	40
Paper 3	Data- and practical-based questions, plus short answer and extended response questions on the option	1	20
Internal		10	20
Individual investigation	Investigation and write-up of 6 to 12 pages	10	20

### IV. Sample questions

- What is the total number of atoms in 0.50 mol of 1,4-diaminobenzene,  $\text{H}_2\text{NC}_6\text{H}_4\text{NH}_2$ ?
  - $16.0 \times 10^{23}$
  - $48.0 \times 10^{23}$
  - $96.0 \times 10^{23}$
  - $192.0 \times 10^{23}$
 (Avogadro's constant ( $L$  or  $N_A$ ) =  $6.0 \times 10^{23} \text{ mol}^{-1}$ .) (Paper 1)
- Many automobile manufacturers are developing vehicles that use hydrogen as a fuel.
  - Suggest why such vehicles are considered to cause less harm to the environment than those with internal combustion engines.
  - Hydrogen can be produced from the reaction of coke with steam:  $\text{C(s)} + 2\text{H}_2\text{O(g)} \rightarrow 2\text{H}_2\text{(g)} + \text{CO}_2\text{(g)}$   
Using information from section 12 of the data booklet, calculate the change in enthalpy,  $\Delta H$ , in  $\text{kJ mol}^{-1}$ , for this reaction. (Paper 2)

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# International Baccalaureate Diploma Programme Subject Brief

Sciences:

Chemistry—Higher level

First assessments 2016 – Last assessments 2022

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

These IB DP subject briefs illustrate four key course components.

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



- III. Assessment model
- IV. Sample questions

## I. Course description and aims

Chemistry is an experimental science that combines academic study with the acquisition of practical and investigational skills. Chemical principles underpin both the physical environment in which we live and all biological systems. Chemistry is often a prerequisite for many other courses in higher education, such as medicine, biological science and environmental science.

Both theory and practical work should be undertaken by all students as they complement one another naturally, both in school and in the wider scientific community. The DP chemistry course allows students to develop a wide range of practical skills and to increase facility in the use of mathematics. It also allows students to develop interpersonal and information technology skills, which are essential to life in the 21st century.

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

Teachers provide students with opportunities to develop manipulative skills, design investigations, collect data, analyse results and evaluate and communicate their findings.

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

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

characterize science and technology

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

## II. Curriculum model overview

Component	Recommended teaching hours
<b>Core</b>	<b>95</b>
1. Stoichiometric relationships	13.5
2. Atomic structure	6
3. Periodicity	6
4. Chemical bonding and structure	13.5
5. Energetics/thermochemistry	9
6. Chemical kinetics	7
7. Equilibrium	4.5
8. Acids and bases	6.5
9. Redox processes	8
10. Organic chemistry	11
11. Measurement and data processing	10

<b>Additional higher level (AHL)</b>	<b>60</b>
12. Atomic structure	2
13. The periodic table—the transition metals	4
14. Chemical bonding and structure	7
15. Energetics/thermochemistry	7
16. Chemical kinetics	6
17. Equilibrium	4
18. Acids and bases	10
19. Redox processes	6
20. Organic chemistry	12
21. Measurement and analysis	2
<b>Option (Choice of one out of four)</b>	<b>25</b>
A. Materials	25
B. Biochemistry	25
C. Energy	25
D. Medicinal chemistry	25
<b>Practical scheme of work</b>	<b>60</b>
Prescribed and other practical activities	40
Individual investigation (internally assessed)	10
Group 4 project	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 of knowledge. The emphasis is on interdisciplinary cooperation and the scientific processes.

## III. Assessment model

Studying this course, students should be able to fulfill the following assessment objectives:

- Demonstrate knowledge and understanding of:
  - facts, concepts, and terminology
  - methodologies and techniques
  - communicating scientific information.
- Apply:
  - facts, concepts, and terminology
  - methodologies and techniques
  - methods of communicating scientific information.
- Formulate, analyse and evaluate:
  - hypotheses, research questions and predictions
  - methodologies and techniques
  - primary and secondary data
  - scientific explanations.

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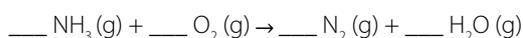
- Demonstrate the appropriate research, experimental, and personal skills necessary to carry out insightful and ethical investigations.

## Assessment at a glance

Type of assessment	Format of assessment	Time (hours)	Weighting of final grade (%)
External		4.5	80
Paper 1	40 multiple-choice questions (Core and AHL)	1	20
Paper 2	Short answer and extended response questions (Core and AHL)	2.25	36
Paper 3	Data- and practical –based questions, plus short answer and extended response questions on the option	1.25	24
Internal		10	20
Individual investigation	Investigation and write-up of 6 to 12 pages	10	20

## IV. Sample questions

- What is the sum of the coefficients when the equation for the combustion of ammonia is balanced using the smallest possible whole numbers?



- 6
- 12
- 14
- 15 (Paper 1)

- The two isomers of  $[\text{Pt}(\text{NH}_3)_2\text{Cl}_2]$  are crystalline. One of the isomers is widely used in the treatment of cancer.
  - Draw both isomers of the complex,
  - Explain the polarity of each isomer using a diagram of each isomer to support your answer,
  - State a suitable method (other than looking at dipole moments) to distinguish between the two isomers
  - Compare and contrast the bonding types formed by nitrogen in  $[\text{Pt}(\text{NH}_3)_2\text{Cl}_2]$  (Paper 2)

# International Baccalaureate Diploma Programme Subject Brief

Sciences:

## Design technology—Standard level

First assessments 2016 — Last assessments 2022

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

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

These IB DP subject briefs illustrate four key course components.

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



- III. Assessment model
- IV. Sample questions

## I. Course description and aims

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

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

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

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

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

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

## II. Curriculum model overview

Component	Recommended teaching hours
<b>Core</b>	<b>90</b>
1. Human factors and ergonomics	12
2. Resource management and sustainable production	22
3. Modelling	12
4. Raw material to final product	23
5. Innovation and design	13
6. Classic design	8
<b>Practical work</b>	<b>60</b>
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.

## III. Assessment model

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

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

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

### Assessment at a glance

Type of assessment	Format of assessment	Time (hours)	Weighting of final grade (%)
External		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

## IV. Sample questions

- Which phrase best reflects the philosophy of the circular economy? (Paper 1)
  - Cradle to cradle
  - Cradle to grave
  - Made to be made again
  - Take, make, dispose
- Explain how the use of “design for the environment” software assists designers in choosing materials. (Paper 2)
- Discuss why the use of thermoplastic renders a product green but not sustainable. (Paper 2)

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# International Baccalaureate Diploma Programme Subject Brief

## Sciences:

### Design technology—Higher level

First assessments 2016 — Last assessments 2022

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

These IB DP subject briefs illustrate four key course components.

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



- III. Assessment model
- IV. Sample questions

## I. Course description and aims

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

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

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

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

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

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

## II. Curriculum model overview

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

### The group 4 project

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

## III. Assessment model

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

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

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

### Assessment at a glance

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

## IV. Sample questions

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

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# International Baccalaureate Diploma Programme Subject Brief

Interdisciplinary course:

Environmental systems and societies—standard level

First assessments 2017—last assessments 2023

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

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

These DP subject briefs illustrate four key course components.

I. Course description and aims  
II. Curriculum model overview



III. Assessment model  
IV. Sample questions

## I. Course description and aims

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

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

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

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

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

## II. Curriculum model overview

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

### The group 4 project

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

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

## III. Assessment model

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

### Assessment objective 1

Demonstrate knowledge and understanding of relevant:

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

### Assessment objective 2

Apply this knowledge and understanding in the analysis of:

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

### Assessment objective 3

Evaluate, justify and synthesize, as appropriate:

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

### Assessment objective 4

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

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

## Assessment at a glance

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

## IV. Sample questions

Paper 1

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

Paper 2

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

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# International Baccalaureate Diploma Programme Subject Brief

Sciences:

Physics—Standard level

First assessments 2016 – Last assessments 2022

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

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



These IB DP subject briefs illustrate four key course components.

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

- III. Assessment model
- IV. Sample questions

## I. Course description and aims

Physics is the most fundamental of the experimental sciences as it seeks to explain the universe itself, from the very smallest particles to the vast distances between galaxies. Despite the exciting and extraordinary development of ideas throughout the history of physics, observations remain 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 helping us better understand the natural world, physics gives us the ability to alter our environments. This raises the issue of the impact of physics on society, the moral and ethical dilemmas, and the social, economic and environmental implications of the work of physicists.

By studying physics students should become aware of how scientists work and communicate with each other. While the scientific method may take on a wide variety of forms, it is the emphasis on a practical approach through experimental work that characterizes the subject. Teachers provide students with opportunities to develop manipulative skills, design investigations, collect data, analyse results and evaluate and communicate their findings.

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

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

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

## II. Curriculum model overview

Component	Recommended teaching hours
<b>Core</b>	<b>95</b>
1. Measurements and uncertainties	5
2. Mechanics	22
3. Thermal physics	11
4. Waves	15
5. Electricity and magnetism	15
6. Circular motion and gravitation	5
7. Atomic, nuclear and particle physics	14
8. Energy production	8

<b>Option (Choice of one out of four)</b>	<b>15</b>
A. Relativity	15
B. Engineering physics	15
C. Imaging	15
D. Astrophysics	15
<b>Practical scheme of work</b>	<b>40</b>
Prescribed and other practical activities	20
Individual investigation (internally assessed)	10
Group 4 project	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 of knowledge. The emphasis is on interdisciplinary cooperation and the scientific processes.

## III. Assessment model

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

- Demonstrate knowledge and understanding of:
  - facts, concepts, and terminology
  - methodologies and techniques
  - communicating scientific information.
- Apply:
  - facts, concepts, and terminology
  - methodologies and techniques
  - methods of communicating scientific information.
- Formulate, analyse and evaluate:
  - hypotheses, research questions and predictions
  - methodologies and techniques
  - primary and secondary data
  - scientific explanations.
- Demonstrate the appropriate research, experimental, and personal 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 (%)
External		3	80
Paper 1	30 multiple-choice questions	0.75	20
Paper 2	Short answer and extended response questions (Core)	1.25	40
Paper 3	Data- and practical-based questions plus, short answer and extended response questions on the option	1	20
Internal		10	20
Individual investigation	Investigation and write-up of 6 to 12 pages	10	20

## IV. Sample questions

- An object falls freely from rest through a vertical distance of 44.0m in a time of 3.0s. What value should be quoted for the acceleration of free-fall? (Paper 1)
  - $9.778\text{m s}^{-2}$
  - $9.780\text{m s}^{-2}$
  - $9.78\text{m s}^{-2}$
  - $9.8\text{m s}^{-2}$
- There is a suggestion that the temperature of the Earth may increase if the use of fossil fuels is not reduced over the coming years. Explain, with reference to the enhanced greenhouse effect, why this temperature increase may occur. (Paper 2)
- In an experiment to measure the specific heat capacity of a metal, a piece of metal is placed inside a container of boiling water at  $100^{\circ}\text{C}$ . The metal is then transferred into a calorimeter containing water at a temperature of  $10^{\circ}\text{C}$ . The final equilibrium temperature of the water was measured. One source of error in this experiment is that the small mass of boiling water will be transferred to the calorimeter along with the metal.
  - Suggest the effect of the error on the measured value of the specific heat capacity of the metal
  - State one other source of error for this experiment (Paper 3)

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# International Baccalaureate Diploma Programme Subject Brief

Sciences:

Physics—Higher level

First assessments 2016 – Last assessments 2022

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

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

These IB DP subject briefs illustrate four key course components.

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

- III. Assessment model
- IV. Sample questions



## I. Course description and aims

Physics is the most fundamental of the experimental sciences, as it seeks to explain the universe itself, from the very smallest particles to the vast distances between galaxies. Despite the exciting and extraordinary development of ideas throughout the history of physics, observations remain 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 helping us better understand the natural world, physics gives us the ability to alter our environments. This raises the issue of the impact of physics on society, the moral and ethical dilemmas, and the social, economic and environmental implications of the work of physicists.

By studying physics students should become aware of how scientists work and communicate with each other. While the scientific method may take on a wide variety of forms, it is the emphasis on a practical approach through experimental work that characterizes the subject. Teachers provide students with opportunities to develop manipulative skills, design investigations, collect data, analyse results and evaluate and communicate their findings.

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

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

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

## II. Curriculum model overview

Component	Recommended teaching hours
<b>Core</b>	<b>95</b>
1. Measurements and uncertainties	5
2. Mechanics	22
3. Thermal physics	11
4. Waves	15
5. Electricity and magnetism	15
6. Circular motion and gravitation	5
7. Atomic, nuclear and particle physics	14
8. Energy production	8

<b>Additional higher level</b>	<b>60</b>
9. Wave phenomena	17
10. Fields	11
11. Electromagnetic induction	16
12. Quantum and nuclear physics	16
<b>Option (Choice of one out of four)</b>	<b>25</b>
A. Relativity	25
B. Engineering physics	25
C. Imaging	25
D. Astrophysics	25
<b>Practical scheme of work</b>	<b>60</b>
Prescribed and other practical activities	40
Individual investigation (internally assessed)	10
Group 4 project	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 of knowledge. The emphasis is on interdisciplinary cooperation and the scientific processes.

### III. Assessment model

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

- Demonstrate knowledge and understanding of:
  - facts, concepts, and terminology
  - methodologies and techniques
  - communicating scientific information.
- Apply:
  - facts, concepts, and terminology
  - methodologies and techniques
  - methods of communicating scientific information.
- Formulate, analyse and evaluate:
  - hypotheses, research questions and predictions
  - methodologies and techniques
  - primary and secondary data
  - scientific explanations.
- Demonstrate the appropriate research, experimental, and personal 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 (%)
External		4.5	80
Paper 1	40 multiple-choice questions	1	20
Paper 2	Short answer and extended response questions (Core and AHL)	2.25	36
Paper 3	Data- and practical-based questions plus, short answer and extended response questions on the option	1.25	24
Internal		10	20
Individual investigation	Investigation and write-up of 6 to 12 pages	10	20

### IV. Sample questions

- Why is wave-particle duality used in describing the properties of light?
  - Light is both a wave and a particle
  - Both wave and particle models can explain all the properties of light
  - Different properties of light can be more clearly explained by using one of the wave or particle models
  - Scientists feel more confident when using more than one model to explain a phenomenon (Paper 1)
- The tower is 120m high with an internal diameter of 3.5m. When most of the air has been removed, the pressure in the tower is 0.96 Pa. Determine the number of molecules of air in the tower when the temperature of the air is 300 K. (Paper 2)
- The streamlines above the airfoil are closer to each other than the streamlines below the airfoil. Suggest why this implies that the speed of the air above the airfoil is greater than the speed of air below the airfoil. (Paper 3)

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# International Baccalaureate Diploma Programme Subject Brief

## Sciences: Sports, exercise and health science

First assessments: SL – 2014; HL - 2018



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

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



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

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

- III. Assessment model
- IV. Sample questions

## I. Course description and aims

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

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

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

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

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

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

## II. Curriculum model overview

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

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

### The group 4 project

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

## III. Assessment model

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

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

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## 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	<b>SL:</b> 30 multiple choice questions on the core. <b>HL:</b> 40 multiple choice questions on the core and the AHL.	0.75	1	20	20
Paper 2	One data-based and several short answer questions  <b>SL:</b> one extended response question.  <b>HL:</b> two of four extended response questions.	1.25	2.25	35	35
Paper 3	Several short answer questions in each of the two options. <b>HL:</b> additional extended response questions.	1	1.25	25	25
<b>Internal</b>		10	10	20	20
<b>Individual investigation</b>		10	10	20	20

## IV. Sample questions

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

# International Baccalaureate Diploma Programme Subject Brief

## Mathematics: analysis and approaches

First assessments for SL and HL—2021

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

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

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

This IB DP subject brief has three key components:

I. Course description and aims

II. Curriculum model overview

III. Assessment model



## I. Course description and aims

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

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

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

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

## II. Curriculum model overview

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

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

## III. Assessment model

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

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

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

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

## Assessment at a glance

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

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# International Baccalaureate Diploma Programme Subject Brief

## Mathematics: applications and interpretation

First assessments for SL and HL—2021

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

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

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

This IB DP subject brief has three key components:

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



## I. Course description and aims

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

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

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

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

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

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

## II. Curriculum model overview

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

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

## III. Assessment model

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

The assessment objectives are common to Mathematics: 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
<b>External</b>					
Paper 1	Technology allowed. Compulsory short-response questions based on the syllabus.	1.5	2	40	30
Paper 2	Technology allowed. Compulsory extended-response questions based on the syllabus.	1.5	2	40	30
Paper 3	Technology allowed. Two compulsory extended-response problem-solving questions.		1		20
<b>Internal</b>					
Exploration		15	15	20	20

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# International Baccalaureate Diploma Programme Subject Brief

## The arts: Music

First assessment 2022

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

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

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

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

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



## I. Course description and aims

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

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

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

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

### Alignment with DP arts courses

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

### Engagement with diverse musical material

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

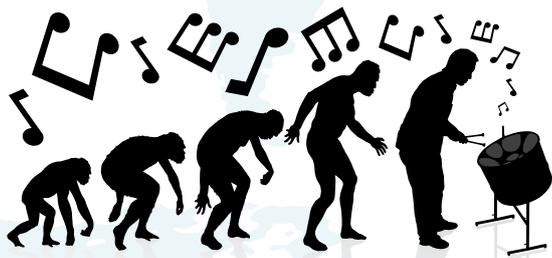
- Music for sociocultural and political expression
- Music for listening and performance,
- Music for dramatic impact, movement and entertainment
- Music technology in the digital age.



### A framework for study and assessment

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

### What do students do in a music classroom?



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



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



Communicate and present music as researchers, creators and performers.

### How are music students assessed?

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

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

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

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

In addition, HL students will submit the following project.

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

### By the end of the course students will have:

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

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

### The course is ideal for students who ...

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

## II. Curriculum model overview

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

## III. Assessment model

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

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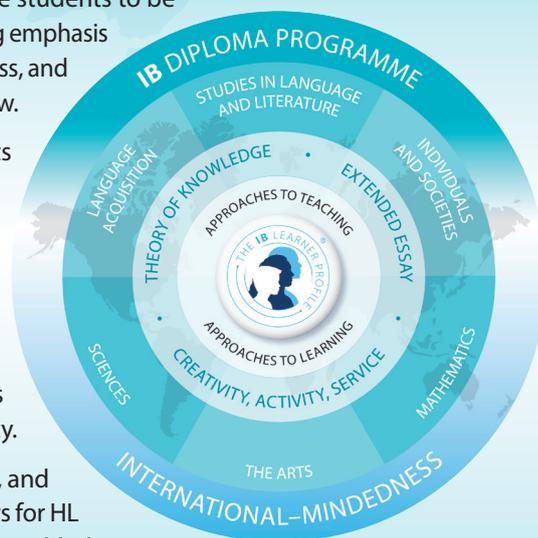
## Theatre

First assessment 2024

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

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

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



### I. Course description and aims

The IB Diploma Programme theatre course is a multifaceted theatre-making course. It gives students the opportunity to make theatre as creators, designers, directors and performers. It emphasizes the importance of working both individually and as part of an ensemble. It offers the opportunity to engage actively in the creative process of inquiring, developing, presenting and evaluating. Students are encouraged to work as inquisitive and imaginative artists, transforming ideas into action and communicating these to an audience.

Theatre students learn to apply research and theory to inform and contextualize their work as they experience the course through practical and physical engagement. They understand that knowledge resides in the body and that research can be conducted physically through both action and practice. In this respect, the theatre course encourages students to appreciate that through the processes of researching, creating, preparing, presenting and critically reflecting on theatre—as participants and spectators—they gain a richer understanding of themselves, their community and the world.

Through the study of theatre, students strengthen their awareness of their own personal and cultural perspectives, developing an appreciation of the diversity of theatre practices, their processes and their modes of presentation. This enables students to discover and engage with different forms of theatre

across time, place and culture and promotes international-mindedness. Participation in the DP theatre course results in the development of both theatre and life skills; the building of confidence, imagination, creativity and a collaborative mindset.

The aims of the DP arts subjects (dance, film, music, theatre, visual arts and literature and performance) are to enable students to:

1. explore the diversity of the arts across time, cultures and contexts
2. develop as imaginative and skilled creators and collaborators
3. express ideas creatively and with competence in forms appropriate to the artistic discipline
4. critically reflect on the process of creating and experiencing the arts
5. develop as informed, perceptive and analytical practitioners
6. enjoy lifelong engagement with the arts.

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

7. inquire into theatre and its contexts
8. develop and practically apply theatre performance and production skills and elements, led by intentions
9. create, present and evaluate theatre work both independently and collaboratively
10. acquire the perspectives and intentions of an internationally-minded theatre-maker
11. understand, appreciate and explore the relationship between theory and performance (HL only).

## II. Curriculum model overview

Syllabus component	Teaching hours	
	SL	HL
<p><b>Staging play texts</b></p> <p>This area of the syllabus addresses the transformation of play texts into action. Students examine the ways in which ideas are articulated in texts by playwrights and the ways in which performance and production elements can be used to effectively fulfill theatre-maker intentions.</p>	45	45
<p><b>Exploring world theatre traditions</b></p> <p>This area of the syllabus addresses the authentic exploration of world theatre traditions through academic and practical research and exploration. Students inquire into and physically explore world theatre traditions, performance conventions and performance material from those traditions in order to acquire a deeper understanding and appreciation of the traditions through the body and/or voice.</p>	45	45

<b>Collaboratively creating original theatre</b> This area of the syllabus addresses the collaborative development and performance of original theatre as part of an ensemble of theatre-makers. Students formulate intentions for theatre-making and examine the ways in which these intentions can be effectively realized through the collaborative creation of original performance work inspired by a starting point.	60	60
<b>Performing theatre theory (HL only)</b> This area of the syllabus addresses the exploration of aspects of theatre theory and the ways in which theory can inform performance. Students research at least one theatre theorist, identify an aspect of their theory and apply this to create and present theatre work that demonstrates this aspect of theory in performance.	X	90
<b>Total teaching hours</b>	<b>150</b>	<b>240</b>

### III. Assessment model

Having followed the theatre course at SL or HL, students will be expected to fulfill the following objectives at assessment.

#### 1. Inquiry

- a. Carry out academic and physical research and identify valuable information and resources to support work in theatre
- b. Inquire into, and contextualize, the theatrical work and ideas of others

#### 2. Development

- a. Develop informed and imaginative theatre-maker intentions for making and staging theatre
- b. Practically and collaboratively explore how performance and production elements combine in practice to create effective moments of theatre

#### 3. Presentation

- a. Present theatre work to others in order to fulfill theatre-maker intentions
- b. Communicate theatrical ideas in a variety of forms, formats and contexts

#### 4. Evaluation

- a. Reflect on feedback from others and consider their own development as theatre-makers
- b. Evaluate the effectiveness of theatre work.

### Assessment at a glance

Assessment task	Assessment task details	SL	HL
<b>Internal</b>			
<b>Production proposal</b>	Students at SL and HL choose a published play text they have not previously studied and formulate a vision for the design and theoretical staging of the entire play text for an audience. These ideas are presented in the form of a proposal. Each student submits the following. <ol style="list-style-type: none"> <li>1. A production proposal (a maximum of 12 pages of written text and images, with written text not exceeding 4,000 words) plus a list of all sources used.</li> </ol>	30%	20%

External			
<b>Research presentation</b>	<p>Students at SL and HL plan, deliver and video record an individual research presentation (15 minutes maximum) in which they provide evidence of their academic and practical exploration and learning of a world theatre tradition they have not previously studied. Each student submits the following.</p> <ol style="list-style-type: none"> <li>1. A video recording of the student's research presentation (15 minutes maximum).</li> <li>2. A list of all sources cited and any additional resources used by the student during the presentation.</li> </ol>	30%	20%
<b>Collaborative project</b>	<p>Students at SL and HL collaboratively create and perform an original piece of theatre (lasting 7–10 minutes maximum) created from a starting point of their choice. The piece is presented to an audience as a fully-realized production. Each student submits the following.</p> <ol style="list-style-type: none"> <li>1. A project report (a maximum of 10 pages of written text and images, with written text not exceeding 4,000 words) plus a list of all sources used.</li> <li>2. A video recording of the final piece (7-10 minutes maximum).</li> </ol>	40%	25%
<b>Solo theatre piece (HL only)</b>	<p>Students at HL research a theatre theorist they have not previously studied, identify an aspect(s) of theory and create and present a solo theatre piece (lasting 4-7 minutes maximum) that demonstrates the practical application of this theory to a theatre piece for an audience.</p> <p>Each student submits the following.</p> <ol style="list-style-type: none"> <li>1. A report (2,500 words maximum) plus a list of all primary and secondary sources cited.</li> <li>2. A continuous unedited video recording of the whole solo theatre piece (4-7 minutes maximum).</li> </ol>	X	35%

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# International Baccalaureate Diploma Programme Subject Brief

## The arts:

### Visual arts—Standard level

First assessments 2016 – Last assessments 2022

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

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

These IB DP subject briefs illustrate three key course components.

I. Course description and aims

II. Curriculum model overview

III. Assessment model



## I. Course description and aims

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

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

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

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

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

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

## II. Curriculum model overview

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

<p><b>Visual arts methods</b></p> <ul style="list-style-type: none"> <li>• Look at different techniques for making art.</li> <li>• Investigate and compare how and why different techniques have evolved and the processes involved.</li> <li>• Experiment with diverse media and explore techniques for making art.</li> <li>• Develop concepts through processes informed by skills, techniques and media.</li> <li>• Evaluate how their ongoing work communicates meaning and purpose.</li> <li>• Consider the nature of “exhibition” and think about the process of selection and the potential impact of their work on different audiences.</li> </ul>	<b>50</b>
<p><b>Communicating visual arts</b></p> <ul style="list-style-type: none"> <li>• Explore ways of communicating through visual and written means.</li> <li>• Make artistic choices about how to most effectively communicate knowledge and understanding.</li> <li>• Produce a body of artwork through a process of reflection and evaluation, showing a synthesis of skill, media and concept.</li> <li>• Select and present resolved works for exhibition.</li> <li>• Explain the ways in which the works are connected.</li> <li>• Discuss how artistic judgments impact the overall presentation.</li> </ul>	<b>50</b>

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

### III. Assessment model

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

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

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

### Assessment at a glance

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

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# International Baccalaureate Diploma Programme Subject Brief

## The arts:

### Visual arts—Higher level

First assessments 2016 – Last assessments 2022

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

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

These IB DP subject briefs illustrate three key course components.

I. Course description and aims

II. Curriculum model overview

III. Assessment model



## I. Course description and aims

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

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

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

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

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

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

## II. Curriculum model overview

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

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

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

### III. Assessment model

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

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

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

### Assessment at a glance

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

About the IB: For over 40 years the IB has built a reputation for high-quality, challenging programmes of education that develop internationally minded young people who are well prepared for the challenges of life in the 21st century and able to contribute to creating a better, more peaceful world.

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

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

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



*Course information for  
BTEC International Level 2 in  
Business and  
BTEC International Level 3 in  
Business*

# High progression rates

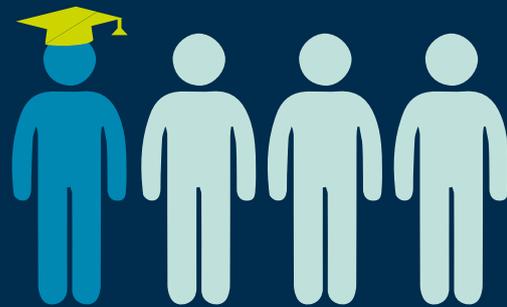


Students in the UK who hold **BTEC** qualifications have high rates of progression between learning levels compared to other types of vocational qualification.\*



\*Department for Business, Innovation and Skills, UK, October 2015

In 2016, nearly **1 in 4** students in the UK who got into university did so with a **BTEC**.\*



\*UCAS and HESA data on entry to HE (2017)

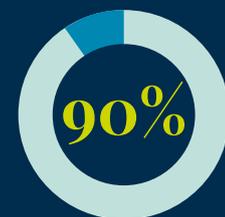
**784** Approved Centres in **60** Countries



## Employment

**90%** of UK **BTEC** students are employed **full time** after graduating.\*

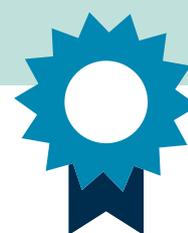
\*The outcomes associated with the BTEC route of degree level acquisition, London Economics 2013



# What are BTECs?

Over 1 million learners every year choose a BTEC course, because they are high quality, hands-on qualifications grounded in the real world of work. Students learn by doing, and develop valuable employability skills that they will use throughout their future career or for progression into university.

BTECs are all about learning by doing and that means BTEC students can use what they learn in practice straight away. Throughout the course, students work on a series of assignments set in real-life scenarios, developing the practical knowledge and skills employers and universities are looking for. BTECs equip students with both the academic knowledge and practical skills necessary to succeed.



*“ I would definitely recommend BTEC to other people. ”*

**Max Whitlock MBE,**  
Double Olympic Gold Medallist (BTEC Sport)

BTECs are career focused qualifications that offer more than just training for jobs. The suite includes a range of technical and professional qualifications that provide education for successful careers, either directly after the completion of the BTEC, or via university. To ensure quality standards and to give the best BTEC experience to students, we provide educational institutions with ongoing support from day one. Our specialist subject and support teams are here to help them all year round, offering guidance and tools including sample assessment materials, lesson plans and teacher training events. The breadth of BTEC subjects include art and design, business, healthcare, engineering, computing, service industries, sport and science. Recent years have seen a rise in the number of employers and higher education institutions choosing BTEC-qualified candidates for their specialist knowledge and technical skills, alongside their all-round life skills such as professionalism, leadership, management and interpersonal skills, which they gain through their BTEC course.



*International Level 2*

## *Aim of the Pearson BTEC International Level 2 qualifications in Business*

The Pearson BTEC International Level 2 Diploma qualification in Business has been developed in the business sector to:

- give full-time learners the opportunity to enter employment in the business sector or to progress to Level 3 vocational qualifications
- provide education and training for business employees
- give opportunities for business employees to achieve a Level 2 vocationally specific qualification
- give learners the opportunity to develop a range of skills and techniques, personal skills and attributes essential for successful performance in working life.

The Pearson BTEC International Level 2 qualifications in Business have been designed to address the needs of Level 2 learners in key areas, including interpersonal skills and customer service. Learners have the opportunity to develop skills to support them as they build relationships with a wide variety of customers, internal and external, to a range of business environments. A range of specialist units are included to allow centres to offer innovative, imaginative and creative curriculum to meet their learner needs.

Specialist areas include:

- finance, both personal and business, together with bookkeeping, which supports development of basic financial principles
- working in business teams and team leading
- business support or administration, which supports development of practical administration skills including office systems and equipment, meeting support and filing systems
- personal selling, which helps learners to understand the personal selling process
- aspects of business online and how this can support businesses to develop opportunities
- aspects of retailing such as promoting, branding and visual merchandising
- consumer rights
- business ethics
- lean management techniques
- logistics
- enterprise and business start-up, which is available at both Level 2 and Level 3 in the qualification.

Business employers value employees who are able to communicate effectively both verbally and using electronic communication methods. The Pearson BTEC International Level 2 qualifications in Business provide opportunities for learners to develop their communication skills as they progress through the course. This can be through presentations and discussions in which they have the opportunity to express their opinions.

Learners should be encouraged to take responsibility for their own learning and achievement, taking into account industry standards for behaviour and performance. It will be beneficial to learners to use local business examples wherever possible, and for centres to engage with local employers for support and input.

The Pearson BTEC International Level 2 qualifications in Business provide a route to employment into the many diverse areas of business. These could include:

- roles in specialist areas such as marketing, finance, customer service or human resources in large organisations
- a more generic role in a small local business.

## Pearson BTEC International Level 2 Diploma in Business

The Pearson BTEC International Level 2 Diploma in Business qualification has a minimum total of 600 Notional Learning Hours (NLH).

Learners must achieve four mandatory units **and** optional units that provide for a combined minimum total value of 60 to achieve the qualification.

This qualification is **not** designed to allow units to be imported from other Pearson qualifications.

<b>Mandatory units</b>				
<b>Unit</b>	<b>Unit title</b>	<b>Level</b>	<b>Notional Learning Hours</b>	<b>Unit value (NLH/10)</b>
1	Business Purposes	2	50	5
2	Business Organisations	2	50	5
3	Financial Forecasting for Business	2	50	5
4	People in Organisations	2	50	5

<b>Optional units</b>				
<b>Unit</b>	<b>Unit title</b>	<b>Level</b>	<b>Notional Learning Hours</b>	<b>Unit value (NLH/10)</b>
5	Using Office Equipment	1	50	5
6	Providing Business Support	2	50	5
7	Verbal and Non-verbal Communication in Business Contexts	2	50	5
8	Business Communication through Documentation	2	50	5
9	Training and Employment in Business	2	50	5
10	Personal Selling in Business	2	50	5
11	Customer Relations in Business	2	100	10
12	Business Online	2	100	10
13	Consumer Rights	2	50	5
14	Business Ethics	2	50	5
15	Bookkeeping for Business	2	50	5
16*	Business Enterprise	2	100	10
17*	Starting a Small Business	3	100	10

<b>Optional units (continued)</b>				
<b>Unit</b>	<b>Unit title</b>	<b>Level</b>	<b>Notional Learning Hours</b>	<b>Unit value (NLH/10)</b>
18	Working in Business Teams	2	50	5
19	The Marketing Plan	2	50	5
20	Managing Personal Finances	2	50	5
21	Promoting and Branding in Retail Business	2	100	10
22	Visual Merchandising and Display Techniques for Retail Business	2	100	10
23	Lean Organisation Techniques in Business	2	50	5
24	Business Improvement Tools and Techniques	2	50	5
25	Enterprise in the Workplace	2	100	10
26	Sourcing and Buying in the Supply Chain	2	50	5
27	Technology in the Logistics Sector	2	50	5
28	Warehousing Skills in Logistics	2	50	5
29	Transport, Distribution and the Storage of Goods within the Logistics Industry	2	50	5

\*Units 16 and 17 may **not** be taken together.

## Entry Requirements

### BTEC Level 2

Academic requirements: 4x GCSE/IGCSE or equivalent at any grade

English requirements: completion of Year 11 or equivalent English

## Assessment and Grading

The assessment of Pearson BTEC International Level 2 qualifications is criterion-referenced and the centre is required to assess learners' evidence against published outcomes of learning and assessment criteria.

Each unit within the qualification has specified assessment and grading criteria which are to be used for grading purposes. A summative unit grade can be awarded at pass, merit or distinction:

- to achieve a 'pass' a learner must have satisfied all the pass assessment criteria
- to achieve a 'merit' a learner must additionally have satisfied all the merit grading criteria
- to achieve a 'distinction' a learner must additionally have satisfied all the distinction grading criteria.

A grading scale of pass, merit and distinction is applied to all units.

### Pearson BTEC International Level 2 Diploma in Business

Minimum total Notional Learning Hours (NLH)	600 (including 360 Guided Learning Hours (GLH))
Minimum qualification value (NLH/10)	60
Assessment	This qualification is internally assessed
Unit grading information	Pass/Merit/Distinction
Overall qualification grading information	Pass/Merit/Distinction/Distinction*

## Learner Preparation

As Pearson BTEC International Level 2 qualifications are all internally assessed, it is important that learners are prepared for assessment. Learners:

- must be prepared for and motivated to work consistently and independently to achieve the requirements of the qualification
- need to understand how they will be assessed and the importance of timescales and deadlines
- need to appreciate fully that all the work submitted for assessment must be their own.

# Unit 1: Business Purposes

Level:	<b>2</b>
Notional Learning Hours:	<b>50 (including 30 GLH)</b>
Unit value (NLH/10):	<b>5</b>
SRF unit code:	<b>20628G</b>

**This unit is internally assessed**

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## Unit aim

The aim of this unit is to develop learners' understanding of the nature of business organisations and the business environment in which they operate. Learners will do this by looking at the range of organisations that exist locally, regionally, nationally and internationally, and by considering the business framework in which they operate. There will be a particular focus on businesses in the local context with which learners will be familiar.

## Unit introduction

National wealth is created through business activity. The term 'business' is used to cover organisations as diverse as multinational companies and small local businesses, as well as organisations in the voluntary sector. Businesses have a wide range of purposes. Some supply goods and services, others manufacture goods. Some want to make profits to satisfy their shareholders, others do not. Businesses contribute to the national wellbeing and the unit considers the purposes of these different businesses.

Businesses are organised differently. The largest businesses operate globally. Others may wish to remain small and free from too much legal control. The smallest businesses, for example, individuals providing an ironing or gardening service, may be run from the owner's home and have a limited sphere of operation. Learners will look at how businesses are classified in terms of their activities and will consider the relative importance of each by looking at the local economy.

Businesses do not operate in a vacuum. Governments influence the business context. Account has to be taken of the requirements of the European Union and other organisations in areas such as competition. In general terms, the government wants to create a business framework in which businesses and individuals can flourish. Learners will look at some simple linkages to understand how governments affect business. When interest rates fall, businesses borrow cheaply to invest and produce more to sell at home and abroad, so they take on more employees who receive incomes which they then spend on goods and services so stimulating demand for products from other businesses. Growth, income, exporting and employment can all be examined through examples such as this.

Learners will look at the changing patterns in the business environment and the reasons for these changes. Businesses need to be flexible and responsive to the changes in the business environment if they are to survive and succeed.

# Unit 2: Business Organisations

Level:	<b>2</b>
Notional Learning Hours:	<b>50 (including 30 GLH)</b>
Unit value (NLH/10):	<b>5</b>
SRF unit code:	<b>20629G</b>

**This unit is internally assessed**

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## Unit aim

The aim of this unit is to develop learners' understanding of the aims and objectives of business organisations and how they are organised into functional areas to meet their business goals. Learners will do this by looking at examples of local and national organisations and for which information is readily available. There will be a particular focus on businesses in the local context with which learners will be familiar.

## Unit introduction

Many different types of business operate nationally and internationally. In this unit the term 'business' includes all organisations that have a business purpose, including charities and voluntary organisations. Learners will look at how different businesses have different aims and objectives and how they then structure themselves to meet them. Many businesses have an aim/mission, which is a broad statement that defines the ethos of the business. The business needs to have objectives that flesh out how the aim/mission is to be accomplished and these should be specific and measurable. The unit will consider the range of objectives that exist in business.

Consideration will be given to how businesses organise themselves in order to achieve their objectives. Once a business has ceased to be small it will become functionally organised so each activity becomes a specialist activity that needs to be organised, structured and sequenced to support business objectives. The purchasing department in a supermarket must ensure the goods inwards area expects and can store supplies from the warehouse. In its turn, the warehouse has to load and dispatch trucks to stores in response to their orders and to ensure the goods arrive in time to avoid empty shelves and disgruntled customers who might take their business elsewhere and reduce the supermarket's sales and profit figures. Learners will develop their understanding of these areas and how they function and interrelate. The unit provides a business context within which learners in employment or on work placement may use their experience. The unit also develops a greater understanding of business activity for those seeking employment.

## Outcomes of learning

On completion of this unit a learner should:

- 1 Be able to set business aims and objectives
- 2 Understand the main functional areas in business organisations.

# Unit 3: Financial Forecasting for Business

Level:	<b>2</b>
Notional Learning Hours:	<b>50 (including 30 GLH)</b>
Unit value (NLH/10):	<b>5</b>
SRF unit code:	<b>20630G</b>

**This unit is internally assessed**

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## Unit aim

The aim of this unit is to develop learners' understanding of the financial aspects of running a business. Learners will do this by looking at the key concepts used by businesses to manage their money, and forecast their finances for the future.

## Unit introduction

Money is at the heart of business. It is likely to be the main reason why a business was created and that it continues to trade. This unit looks at the financial aspects of running a business.

Learners are introduced to the types of costs that different businesses will incur. This is followed by exploring how the sale of products and services generates revenue to give the learner the basis on which they can develop their understanding of profit.

The awareness of profit leads the learner into break-even analysis, a technique used to determine the point at which sales equal costs. It establishes the volume of sales at which fixed and variable costs will be covered. All sales over the breakeven point produce profits; any drop in sales below that point will produce losses.

The unit then introduces learners to the concept of cash flow forecasting, which estimates the timing and amounts of cash inflows and outflows over a specific period (usually one year). A cash flow forecast shows if a business needs to borrow, how and when a decision will be needed. This is followed by exploring how cash flows can be managed more effectively and learners will be given an insight into one of the primary causes of business failure – the problem of payment timing rather than that of profitability alone.

The knowledge and skills developed in this unit are essential for anyone running a small business venture or involved in the financial management of business organisations.

Learners will develop vocational skills, knowledge and techniques through simulating the kinds of tasks that a real business would be expected to complete to ensure it manages its finances successfully.

## Outcomes of learning

On completion of this unit a learner should:

- 1 Know about costs, revenue and profit in a business organisation
- 2 Be able to prepare a break-even analysis
- 3 Be able to create a cash flow forecast.

# Unit 4: People in Organisations

Level:	<b>2</b>
Notional Learning Hours:	<b>50 (including 30 GLH)</b>
Unit value (NLH/10):	<b>5</b>
SRF unit code:	<b>20631G</b>

**This unit is internally assessed**

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## Unit aim

The aim of this unit is to develop learners' understanding of the part played by people in organisations. Learners will do this through a study of job roles and their functions. They will examine the different structures of organisations, as well as considering their own preparation for employment and career planning.

## Unit introduction

In this unit learners will understand that the success of many organisations is due in part to the calibre of the people who work in them. An organisation will strive to ensure that it has the right people in the right place at the right time to do the work.

Learners will examine the variety of job roles that exist within organisations and the various functions performed by individual roles. They will discover that there are important roles in any organisation which have to be performed effectively for that organisation to be successful. Organisations are organised and structured differently but many of the roles and functions are similar. Different structures and ways of organisation still allow organisations to achieve their goals successfully.

Organisations use person specifications and job descriptions to ensure that they recruit the best people to fill job vacancies. Learners will produce these important documents for given job roles. Additionally, learners will also have the opportunity to complete an application and an interview for a specific job role and will link this to ideas for possible employment and associated career development planning.

## Outcomes of learning

On completion of this unit a learner should:

- 1 Know about job roles and their functions in organisations
- 2 Be able to produce documentation for specific job roles
- 3 Be able to prepare for employment
- 4 Be able to produce a career development plan.



*International Level 3*

## Key Information

<b>Pearson BTEC International Level 3 Diploma in Business</b>	720 GLH Equivalent in size to two International A Levels. At least nine units* of which five are mandatory and at least two* are assessed using a Pearson Set Assignment. Mandatory content (67%).	Designed to be the substantive part of a 16–19 study programme for learners who want a strong core of business sector study. Other vocational or academic qualifications or non-qualification elements can complement it to support progression to specific job roles or to higher education business courses.
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\* The exact number of units is dependent on the guided learning hours of units selected.

## Assessment

Assessment is designed to fit the purpose and objective of the qualification. It includes a range of assessment types and styles suited to vocational qualifications in the sector. All assessment is internal but some mandatory units have extra controls on assessment and are assessed using Pearson Set Assignments. Additionally, some units are synoptic.

### Set assignment units

Some mandatory units in the qualifications are assessed using a set assignment. Each assessment is set by Pearson and may need to be taken under controlled conditions before it is marked by teachers.

Set assignment units are subject to external standards verification processes common to all BTEC units. By setting an assignment for some units, we can ensure that all learners take the same assessment for a specific unit. Learners are permitted to resit set assignment units during their programme. Please see Section 6 Internal assessment for further information.

Set assignments are available from September each year and are valid for one year only. For detailed information on the Pearson Set Assignment, please see the table in Section 2 Structure. For further information on preparing for assessment, see Section 5 Assessment structure.

## Entry Requirements

<b>BTEC Level 3</b>
Academic requirements: 5x IGCSE/GCSE or equivalent at a grade 4 or above
English requirements: IGCSE/GCSE or equivalent at grade 3 or above

## Pearson BTEC International Level 3 Diploma in Business

### Mandatory units

There are five mandatory units, three internal units and two set assignment units. Learners must complete and achieve a Pass or above in all mandatory units.

### Optional units

Learners must complete optional units totalling at least 240 GLH.

Pearson BTEC International Level 3 Diploma in Business				
Unit number	Unit title	GLH	Type	How assessed
<b>Mandatory units – learners complete and achieve all units</b>				
1	Exploring Business	90	Mandatory	Internal
2	Research and Plan a Marketing Campaign	90	Mandatory	Set assignment
3	Business Finance	90	Mandatory	Internal
4	Managing an Event	90	Mandatory	Internal
7	Business Decision Making	120	Mandatory	Set assignment
<b>Optional units – learners complete units totalling at least 240 GLH</b>				
5	International Business	60	Optional	Internal
6	Principles of Management	60	Optional	Set assignment
8	Human Resources	60	Optional	Internal
9	Team Building in Business	60	Optional	Internal
10	Recording Financial Transactions	60	Optional	Internal
11	Financial Statements for Public Limited Companies	60	Optional	Internal
12	Financial Statements for Specific Businesses	60	Optional	Internal
13	Cost and Management Accounting	60	Optional	Internal
14	Investigating Customer Service	60	Optional	Internal
15	Investigating Retail Business	60	Optional	Internal
16	Visual Merchandising	60	Optional	Internal
17	Digital Marketing	60	Optional	Internal
18	Creative Promotion	60	Optional	Internal
19	Pitching for a New Business	60	Optional	Internal
20	Business Ethics	60	Optional	Internal

<b>Optional units - learners complete units totalling at least 240 GLH (continued)</b>				
<b>21</b>	Training and Development	<b>60</b>	<b>Optional</b>	Internal
<b>22</b>	Market Research	<b>60</b>	<b>Optional</b>	Internal
<b>23</b>	Work Experience in Business	<b>60</b>	<b>Optional</b>	Internal
<b>24</b>	Branding	<b>60</b>	<b>Optional</b>	Internal
<b>25</b>	Relationship Marketing	<b>60</b>	<b>Optional</b>	Internal
<b>26</b>	Procurement Processes in Business	<b>60</b>	<b>Optional</b>	Internal
<b>27</b>	International Logistics	<b>60</b>	<b>Optional</b>	Internal
<b>28</b>	Sales Techniques and Processes	<b>60</b>	<b>Optional</b>	Internal
<b>29</b>	Health and Safety in the Workplace	<b>60</b>	<b>Optional</b>	Internal
<b>30</b>	Career Planning	<b>60</b>	<b>Optional</b>	Internal
<b>31</b>	Effective Project Management	<b>60</b>	<b>Optional</b>	Internal
<b>32</b>	Business and Environmental Sustainability	<b>60</b>	<b>Optional</b>	Internal
<b>UK specific units for UK progression</b>				
<b>40</b>	The English Legal System	<b>60</b>	<b>Optional</b>	Internal
<b>41</b>	UK Employment Law	<b>60</b>	<b>Optional</b>	Internal
<b>42</b>	Aspects of UK Civil Liability Affecting Business	<b>60</b>	<b>Optional</b>	Internal
<b>43</b>	Aspects of UK Criminal Law Impacting on Business and Individuals	<b>60</b>	<b>Optional</b>	Internal

# Unit 1: Exploring Business

Level: 3

Unit type: Internal

Guided learning hours: 90

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## Unit in brief

Learners study the purposes, features, structures and operating environments of business organisations, and examine the link between innovation and business survival.

## Unit introduction

A business organisation is one that provides goods or services, whether that is to make a profit or not. The common thread in business is that owners and employees are striving to satisfy customers. In today's world of international business, customers are well-informed and have many options in terms of what they buy and who they buy from, so a successful business is one that balances satisfying their customers with selling products or providing services.

In this unit, you will gain an overview of the key ingredients for business success, how businesses are organised, how they communicate, the characteristics of the environment in which they operate, and how this shapes them and their activities. You will also look at the importance of innovation and enterprise to the success and survival of business organisations, with the associated risks and benefits.

By developing relevant business knowledge and understanding, this unit will help you to progress to employment, vocational training and higher apprenticeships, or higher education.

## Learning aims

In this unit you will:

- A** Explore the features of different business organisations and what makes them successful
- B** Investigate how businesses are organised
- C** Examine the environment in which business organisations operate.

# Unit 2: Research and Plan a Marketing Campaign

Level: 3

Unit type: Internal set assignment

Guided learning hours: 90

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## Unit in brief

Learners develop an understanding of how marketing research is conducted in order to plan a marketing campaign.

## Unit introduction

A business organisation may have an outstanding existing or planned product or service to offer prospective customers, but if those customers do not know about it, they cannot buy it. So a business organisation must make sure it understands the needs of its prospective customers and then enable them to find out about the product or service and how it will benefit them. A careful marketing campaign will help the organisation to achieve this.

In this unit, you will learn how a marketing campaign is planned and developed. You will explore a range of different objectives that can be included in a marketing campaign such as increasing sales or market share, or establishing a brand image, and explore the various stages of the process an organisation goes through when developing its campaign. Using your understanding of these factors, and of marketing models and tools, you will develop your own costed marketing campaign for a given product. You will examine the marketing aims and objectives for existing products and use your own independent market research data to make recommendations about the type of marketing campaign a business organisation should undertake. To complete the assessment task within this unit, you will need to draw on your learning from across your programme.

This unit will give you an insight into how important marketing is to business. It will enable you to make an informed choice as to whether you want to specialise in marketing in employment, training or higher education.

## Assessment availability

This unit has a set assignment. Learners must complete a Pearson Set Assignment Brief.

## Learning aims

In this unit you will:

- A** Explore how different markets are researched using different models and tools
- B** Explore approaches to product marketing nationally and internationally
- C** Develop a plan for a marketing campaign for a new product.

# Unit 3: Business Finance

Level: 3

Unit type: Internal

Guided learning hours: 90

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## Unit in brief

Learners develop the skills and knowledge required to analyse and interpret financial data, enabling them to assess the financial health of a business and suggest how its performance can be improved.

## Unit introduction

Business finance enables a business organisation to operate on a day-to-day basis, and over the long term, develop new products and invest in new equipment in order to access new markets. Decisions relating to business finance require careful planning and monitoring, which involve deciding where to obtain the finance, calculating business costs, and understanding how to evaluate and improve the overall performance of a business.

In this unit, you will consider the importance of business finance and the types of business finance available in different contexts. The unit will introduce you to accounting terminology, the purpose and importance of business accounts, and the different sources of finance available to businesses. You will prepare and analyse business finance planning tools such as cash flow forecasts and break-even analyses. Measuring the financial performance of an organisation will require you to prepare and analyse statements of comprehensive income, and statements of financial position, in relation to the organisation's profitability, efficiency and liquidity.

This unit will give you a background to business finance and accounting as you progress to employment and further training.

## Learning aims

In this unit you will:

- A** Explore types of business finance available at different stages in the growth of a business
- B** Understand how financial planning tools can be used to analyse financial data and assess business risks
- C** Understand how financial statements for a sole trader are prepared and used to analyse and evaluate business performance.

# Unit 4: Managing an Event

Level: 3

Unit type: Internal

Guided learning hours: 90

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## Unit in brief

Learners will work as part of a small group to plan, coordinate and manage a business or social enterprise event and evaluate the skills gained.

## Unit introduction

Events management is one of the most exciting and dynamic sectors of business. This unit combines your creativity and organisational skills to produce successful, memorable events, whether for profit or social enterprise.

You will investigate a number of successful events, both large and small, and use this research to assess the feasibility of events to plan and run yourself. Examples could range from organising meetings, product launches, exhibitions, promotions, charity events, team-building events and staff development, to a full-scale conference. Your chosen event will be carefully planned, demonstrating your ability to use planning tools. You will then stage the event, testing the effectiveness of your planning. This will require you to 'think on your feet', deal with financial and security issues, liaise with suppliers and venue personnel, and utilise your problem-solving skills. Afterwards you will evaluate the success of the event. To complete the assessment task within this unit, you will need to draw on your learning from across your programme.

This unit will develop your teamwork, communication, time-management, negotiation and problem-solving skills. It will help you develop the essential transferable skills that employers look for. The unit will provide a useful opportunity to consider whether to pursue a career in events management or to continue on to further study in this area.

## Learning aims

In this unit you will:

- A** Explore the role of an event organiser
- B** Investigate the feasibility of a proposed event
- C** Develop a detailed plan for a business or social enterprise event
- D** Stage and manage a business or social enterprise event
- E** Reflect on the running of the event and evaluate own skills development.

# Unit 7: Business Decision Making

Level: 3

Unit type: Internal set assignment

Guided learning hours: 120

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## Unit in brief

Learners use their knowledge and understanding of business concepts and processes from the mandatory content to formulate business decisions and solutions.

## Unit introduction

In this unit, you will apply the knowledge and skills you have gained in other units to interpret business data and formulate appropriate decisions and solutions to business problems. You will consider business situations and scenarios where you are required to select and use appropriate evidence drawn from several sources in order to make business decisions to support a business's objectives.

Making business decisions will require you to analyse, interpret and compare business data drawn from a number of sources such as financial data, financial statements and market information. You will use appropriate business models to identify business risks and evaluate the costs and benefits of alternative solutions to a business problem. You will predict probable consequences, identify faulty arguments or misrepresentations of information or data, compare information and data, provide reasonable alternatives, and evaluate and justify your proposed solutions.

This unit will help you to understand the importance of decision making and planning in a business and enable you to progress to employment, self-employment, training or higher education. This is a controlled assessed unit and will allow you to demonstrate your ability to extract relevant information and apply the knowledge and understanding you have developed.

## Assessment availability

This unit has a set assignment. Learners must complete a Pearson Set Assignment Brief.

## Learning aims

In this unit you will:

- A** Examine the business principles and practices that determine business decisions
- B** Review and interpret business data and information
- C** Formulate decisions and solutions to business problems
- D** Prepare business documents to present business decisions.

Notes

# Visit DCIS



**EW22** Dover     🚶 10 minutes  
**CC23** one-north     🚶 15 minutes  
**EW21** Buona Vista     🚶 15 minutes  
**CC21**



**Bus stop 19079/19061** 33, 196  
**Bus stop 19089/19071** 14, 33, 74, 166, 196



Please note that we have limited parking spaces on campus, but you are welcome to use the parking spaces across the road at the Singapore Polytechnic.

We discourage parking on Dover Road and Medway Park as the LTA makes regular checks.

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