International Baccalaureate
Diploma Programme Subject Brief
Individuals and societies:
Information technology in a global society – Higher level

First assessments 2012 – Last assessments 2019

ib Diploma Programme

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.

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 IB DP information technology in a global society (ITGS) course is the study and evaluation of the impacts of information technology (IT) on individuals and society. It explores the advantages and disadvantages of the access and use of digitized information at the local and global level. ITGS provides a framework for the student to make informed judgments and decisions about the use of IT within social contexts.

The aims of the ITGS higher level courses are to:

- enable students to evaluate social and ethical considerations arising from the widespread use of IT by individuals, families, communities, organizations and societies at the local and global level
- develop students' understanding of the capabilities of current and emerging IT systems and to evaluate their impact on a range of stakeholders
- enable students to apply their knowledge of existing IT systems to various scenarios and to make informed judgments about the effects
- encourage students to use their knowledge of IT systems and practical IT skills to justify IT solutions for a specified client or end-user.

II. Curriculum model overview

Component	Recommended teaching hours
Strand 1: Social and ethical significance **SL/HL core** • Reliability and integrity • Security, privacy and anonymity • Intellectual property and authenticity • The digital divide and access equality • Surveillance • Globalization and cultural diversity • Policies, standards and protocols • People and machines • Digital citizenship	40
HL extension Social and ethical considerations linked to the two HL extension topics and annually issued case study.	20
Strand 2: Application to specified scenarios **SL/HL core** • Business and employment • Education and training • Environment • Health • Home and leisure • Politics and government	40
HL extension Scenarios based on real-life situations used to address specified IT developments in the two HL extension topics and annually issued case study.	35

Strand 3: IT systems **SL/HL core** • Hardware and oftware • Networks and internet • Personal and public communications • Multimedia/digital media • Databases, spreadsheets, modelling and simulations • Introduction to project management	40
HL extension • IT systems in organizations • Robotics, artificial intelligence and expert systems • Information systems specific to the annually issued case study	35
The project (practical application of IT skills) The application of skills and knowledge to develop an original IT product for a specified client.	30

III. Assessment model

Having followed the ITGS higher level course, students will be expected to demonstrate the following.

Demonstrate knowledge and understanding of specified content
• IT applications and developments in specified scenarios
• The social and ethical significance of specified IT applications and developments
• Technical knowledge of ITGS terminology, concepts and tools
• Technical knowledge of IT systems
• Topics related to the annually issued case study

Application and analysis
• Explain the impacts of IT applications and developments in specified scenarios
• Analyse the social and ethical significance of specified IT applications and developments
• Transfer IT knowledge and make connections between specific scenarios
• Apply technical knowledge of IT systems acquired through independent research to provide supporting evidence for possible decisions related to the annually issued case study

Synthesis and evaluation
• Evaluate local and global impacts of specified IT developments through individually researched studies
• Evaluate a solution involving IT to a specified problem using knowledge of IT systems

• Discuss the social and ethical implications of specified IT policies and developments
• Evaluate, formulate and justify possible strategic courses of action related to the annually issued case study

Use of ITGS skills
• Demonstrate evidence of project management in the development of a well-organized product to resolve a specific issue
• Use IT tools and the product development life cycle (PDLC) to create an original product in consultation with a client
• Demonstrate evidence of the use of appropriate techniques to develop an original IT product

Assessment at a glance

Type of assessment	Format of assessment	Time (hours)	Weighting of final grade (%)
External		4.75	80
Paper 1	Four structured responses	2.25	35
Paper 2	Written response to previously unseen article	1.25	20
Paper 3	Four questions based on pre-seen case study	1.25	25
Internal		30	20
Written report	Development of an original IT product for a specified client		

IV. Sample questions
Questions based on stimulus material

• Identify two reasons why organizations continue to use legacy systems.
• Many organizations are developing intranets in an attempt to address the problems in their IT developments. To what extent are intranets likely to overcome these problems?
• Explain the purposes of the following in the home network:

  • SSID
  • Router
  • Switch