



Fundación Colegio Americano  
Quito

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# DP Curriculum Guide 2022-2023

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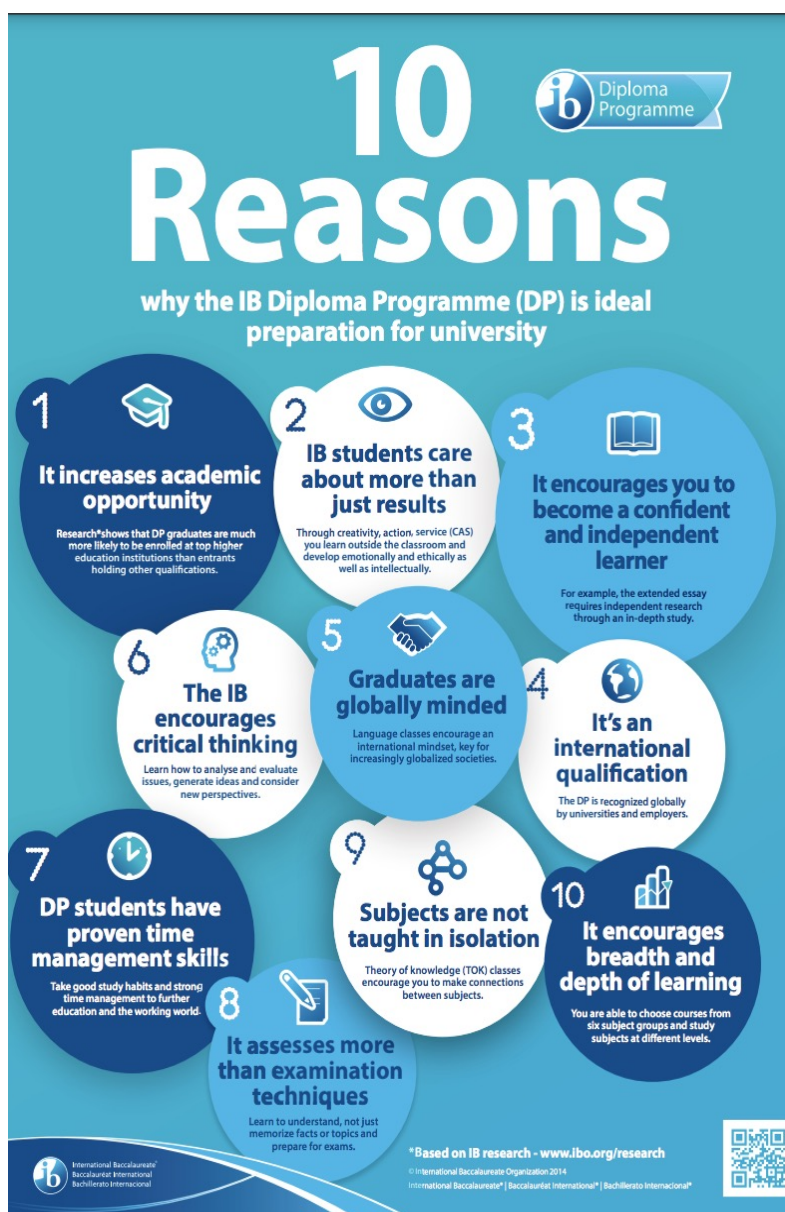
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## 1. The IB Mission and the Diploma Programme (DP)

The IB develops inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through education that builds intercultural understanding and respect.

The International Baccalaureate® aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect. (IBO 2023)



*These programs encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right. (IB mission statement)*

The American School of Quito (ASQ) is committed to delivering the International Baccalaureate (IB) Programmes. In the High School, the Diploma Programme (DP) is followed from Grade 11 to Grade 12.

## The High-Quality Learning Definition

High-quality learning is a social and experiential practice. It sparks students' curiosity and stimulates their natural creativity. It inspires them to strive for excellence, and to take ownership of their own inquiry and research. It shapes the learner and the learning community, nurturing growth and new understandings.

A SOCIAL AND  
EXPERIENTIAL  
PRACTICE (SEP)



SPARKING  
CURIOSITY AND  
CREATIVITY (ICC)



TAKING OWNERSHIP  
OF INQUIRY AND  
RESEARCH (TOI)



STRIVING FOR  
EXCELLENCE  
(EXC)



SHAPING THE LEARNER  
AND THE LEARNING  
COMMUNITY (SLC)



NURTURING GROWTH  
AND NEW  
UNDERSTANDINGS (NGU)



## 2. The Learner Profile The IB Mission Statement in Action

The aim of all IB programmes is for students to develop and demonstrate international-mindedness. It is a multifaceted concept that captures a way of thinking, being and acting. Internationally minded students are open to others and to the world, and are cognizant of our deep interconnectedness. The Learner Profile supports students in developing international-mindedness and in taking action for positive change. Exercising their agency, students take ownership of their learning, express their ideas and opinions, and reflect on their development of the learner profile attributes (IB 2017).

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.

## Concepts and conceptual understanding

### A concept-driven curriculum

Concept-based inquiry is a powerful vehicle for learning that promotes meaning and understanding, and challenges students to engage with significant ideas. This is central to the Diploma Programme (DP) philosophy. “Purposeful inquiry is supported by a concept-driven curriculum” (Wiggins, McTighe 2005).

A concept-driven curriculum is the means through which students develop their conceptual understandings. Students’ co-construct beliefs and mental models about how the world works based on their experiences and prior learning. They integrate new knowledge with their existing knowledge and apply these understandings in a variety of new contexts. They learn to recognize patterns and see the connections between discrete examples to strengthen conceptual understandings.



## Concepts

"A concept is a 'big idea'—a principle or notion that is enduring and is not constrained by a particular origin, subject matter or place in time" (Erickson 2008). Concepts represent ideas that are broad, abstract, timeless and universal. Concepts add depth and rigor in student thinking to the traditional 'two-dimensional' curriculum consisting of facts and skills. Concepts place no limits on breadth of knowledge or on depth of understanding, and therefore are accessible to every student.

Concepts help to:

- explore the essence of a subject
- add coherence to the curriculum
- deepen disciplinary understanding
- build the capacity to engage with complex ideas
- build understandings across, between and beyond subjects
- integrate and transfer learning to new contexts

Concepts are powerful, broad and abstract organizing ideas that may be transdisciplinary or subject-based. They represent the vehicle for students' inquiry into the opportunities and challenges of local and global significance. Concepts are concise; they are usually represented by one or two words.

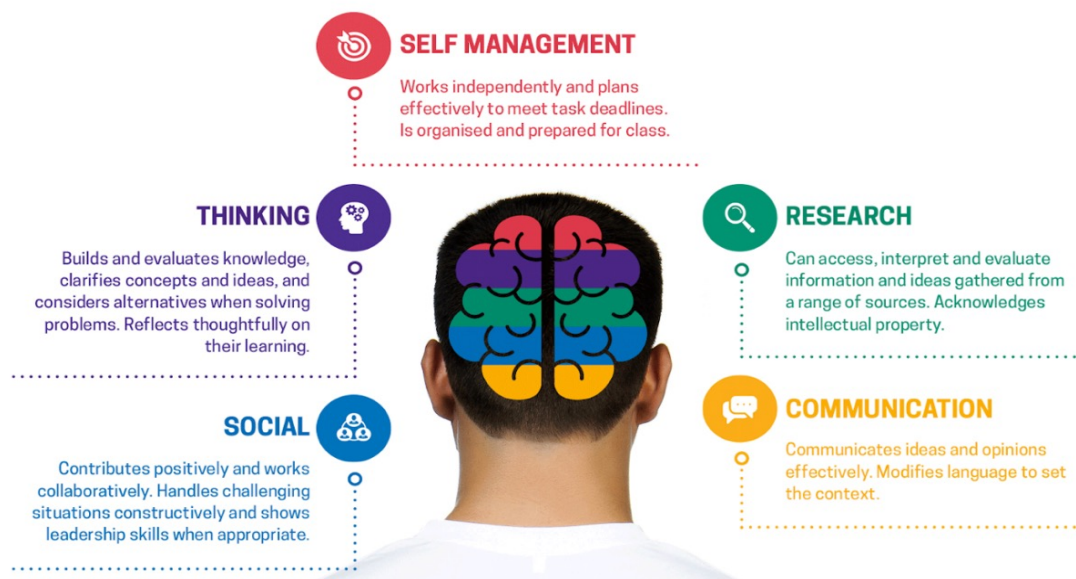
## 3.Approaches to Learning (ATLs)

It is widely known that the development of learning skills is just as important as learning in specific subjects. The transdisciplinary skills that empower students to be successful in school, education and beyond, are known as Approaches to Learning (ATLs). There are five broad categories of skills, which can be broken down into ten more specific categories of ATL skills. Throughout the DP, students will learn and practice different strategies for developing these skills.

Approaches to learning (ATLs) are an integral part of an IB education and complement the learner profile, knowledge, conceptual understanding and inquiry.

These skills are grounded in the belief that learning how to learn is fundamental to a student's education. Five categories of interrelated skills aim to support students of all ages to become self-regulated learners who know how to ask good questions, set effective goals and pursue their aspirations with the determination to achieve them. These skills also help to support students' sense of agency, encouraging them to see their learning as an active and dynamic process (IBO 2017).

Although the ATL are relevant from 3 to 19 years of age, it is particularly important for PYP teachers to interpret these skills in ways that are appropriate for early and primary years learners. All teachers foster and support the development of these skills by providing opportunities embedded in authentic learning experiences.



Category	Sub-skills
Thinking skills	<ul style="list-style-type: none"> <li>• Critical-thinking skills (analyzing and evaluating issues and ideas)</li> <li>• Creative-thinking skills (generating novel ideas and considering new perspectives)</li> <li>• Transfer skills (using skills and knowledge in multiple contexts)</li> <li>• Reflection/metacognitive skills ((re)considering the process of learning)</li> </ul>
Research skills	<ul style="list-style-type: none"> <li>• Information-literacy skills (formulating and planning, data gathering and recording, synthesizing and interpreting, evaluating and communicating)</li> <li>• Media-literacy skills (interacting with media to use and create ideas and information)</li> <li>• Ethical use of media/information (understanding and applying social and ethical technology)</li> </ul>
Communication skills	<ul style="list-style-type: none"> <li>• Exchanging-information skills (listening, interpreting, speaking)</li> <li>• Literacy skills (reading, writing and using language to gather and communicate information)</li> <li>• ICT skills (using technology to gather, investigate and communicate information)</li> </ul>
Social skills	<ul style="list-style-type: none"> <li>• Developing positive interpersonal relationships and collaboration skills (using self-control, managing setbacks, supporting peers)</li> <li>• Developing social-emotional intelligence</li> </ul>
Self-management skills	<ul style="list-style-type: none"> <li>• Organization skills (managing time and tasks effectively)</li> <li>• States of mind (mindfulness, perseverance, emotional management, self-motivation, resilience)</li> </ul>





## 4.DP Program Model and Framework

### Programme of Study

The IB Diploma Programme (DP) at FCAQ builds on our IB Middle Years Programme (IB MYP), a broad yet demanding course of study in Grades 7-10 and our IB Primary Years Programme (IB PYP) from Early Learners to Grade 5. The DP is a two-year international curriculum, Grades 11 and 12, that allows students to fulfill the requirements for university entrance of their national or state education systems. Internationally mobile students are able to transfer into the IB Diploma Programme from other IB World Schools, as well as from other school systems.

### Entry Requirements

To be eligible for the IB Diploma Programme, FCAQ students should have successfully completed the IB Middle Years Programme, which includes Personal Project and FCAQ's service requirements. In order to ensure access to an IB Diploma standard level course, a student must have gained at least an end-of-year MYP level 4 (or equivalent) in the last year that he/she studied the subject.

External applicants are assessed individually. There are no universal, formal entry requirements; however, in order to have access to instruction and to the course materials, it is a prerequisite that the student has competent English skills — speaking, listening, reading and writing. If a student does not have sufficient English skills, then we may require that that he/she take a summer English language course before enrolling in the DP.

## Course Selection

All the courses at DP are IB courses that last 2 years. Students should start the process of choosing their personal plan by consulting the list of subjects offered by FCAQ. When making course selections, students should also consider their future education and career plans and their personal strengths in individual subjects. Students should become familiar with the specific requirements of the universities in the countries to which they intend to apply as different universities in different countries have different entrance requirements.

It is very important that students are aware that specific subjects or combinations of subjects could be required (or excluded) by the country or university of choice. Information about universities around the world is available from FCAQ's university counselors.

It is strongly recommended that students spend as much time as possible discussing their options with as many people as possible, including parents and teachers. Decisions made at this stage in a student's education could affect the rest of their lives, so it is vital that choices are made only after full research and consultation.

To be eligible for the IB Diploma, each student is required to follow six IB courses, with one subject taken from each group in the curriculum model:

- Group 1: Language A English (literature and/or language and literature)
- Group 1: Language A Spanish (literature and/or language and literature)
- Group 3: Individuals and Societies
- Group 4: Experimental Sciences
- Group 5: Mathematics
- Group 6: Arts OR one subject from groups 3-4

Further, all IB Diploma students must choose:

- three courses at higher level (HL); and,
- three courses at standard level (SL).

In addition, all IB Diploma students must complete:

- a course in the Theory of Knowledge (TOK);
- a 4,000-word Extended Essay in a subject of their choice; and,
- the Creativity, Activity, Service (CAS) programme.

## 5. Subject Areas and Strands

### The Core IB Curriculum

**Theory of Knowledge (TOK)** is a course focused on the question, “How do we know?” Students are taught to seek out knowledge through critical thinking and analysis of real world situations. By the end of the course, students should be proficient in formulating arguments and analyzing knowledge claims. The central features of the Theory of Knowledge course in grade 11 are 30 exhibition prompts which guide students’ thinking, while 6 essay questions play a similar role in grade 12.

## **Assessment**

Students are officially assessed for their IB Diploma, based solely on two pieces of work:

- Grade 12: The TOK essay on a prescribed title (1,200–1,600 words) – this is supervised by a teacher in the school, and then graded externally by an IB examiner.
- Grade 11: The TOK Exhibition and written rationale – this is supervised and assessed by a teacher in the school. The final grade is then sent to the IB.

The final TOK grade and the final Extended Essay grade are entered into the Diploma points matrix (see below) to award a possible maximum of 3 extra points, which are added to a student’s Diploma score. Candidates not submitting satisfactory work (level E) for either task will fail the Diploma.

## **The Extended Essay**

The Extended Essay is an in-depth study of a specific topic within a subject. Its purpose is to provide a student with an opportunity to engage in independent research at an introductory level. Emphasis is placed on the process of engaging in personal research, on the communication of ideas and information in a logical and coherent manner and on the overall presentation of the Extended Essay in compliance with IB guidelines. Students are required to devote 40+ hours to the essay over the course of twelve months. The Extended Essay is limited to 4,000 words and should include an introduction, a development methodology, a conclusion, a bibliography and any necessary appendices.

## **Subject choice**

In choosing a subject, an essential consideration should be the personal interests of the student. The subject should offer the opportunity for in-depth research but should also be limited in scope. It should present the candidate with the opportunity to collect or generate information and/or data for analysis and evaluation. Extended Essays submitted in Language A must be written in that language. All other essays must be in English or Spanish.

## Assessment

The Extended Essay is externally examined. Marks are awarded against a set of published criteria. The final Extended Essay grade and the final TOK grade are entered into the Diploma points matrix to award a possible maximum of three extra points, which are added to a student's Diploma score. Candidates not submitting satisfactory work (level E) will fail the Diploma.

## The Creativity, Activity, Service (CAS) Programme

The three elements of the Diploma Programme core (TOK, CAS and the Extended Essay) were introduced by the original curriculum designers of the Diploma Programme as a way to educate the whole person.

CAS experiences are an important source of personal knowledge, providing students with the opportunity to gain awareness of the world in a range of diverse and challenging situations. Shared knowledge extends the idea from how individuals construct knowledge to how communities construct knowledge. In CAS, students might draw on TOK discussions that deepen understanding of different communities and cultures. In both CAS and TOK, students reflect on beliefs and assumptions, leading to more thoughtful, responsible and purposeful lives.

In the CAS programme, students must:

- engage in critical reflection, analyze their own thinking, effort and performance;
- learn how to set challenging goals and develop the commitment and perseverance to achieve them;
- develop self-awareness and a sense of identity;
- consider a CAS project that fosters international-mindedness – reflects an issue of global significance, but is explored from a local perspective;
- develop individual and shared responsibility, and effective teamwork and collaboration;
- demonstrate attributes of the IB learner profile in real and practical ways;
- develop skills, attitudes and dispositions through a variety of individual and group experiences;
- allocate sufficient time to the CAS programme (weekly basis, 18-month journey)

## Subject Group 1 – Language A

### a. SUBJECT OPTIONS

- English Language and Literature
- English Literature
- Spanish Language and Literature
- Spanish Literature



Because it is possible for students to study two languages in Group 1, they are awarded a 'Bilingual IB Diploma'.

## **b. COURSE OVERVIEW**

The IBDP 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 affect 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.

## **c. COURSE AIMS**

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

## **Subject Group 3 – Individual & Societies**

### **a. SUBJECT OPTIONS**

- Psychology
- Economics
- Global Politics
- Business Management

## PSYCHOLOGY

### b. COURSE OVERVIEW

At the core of the DP psychology course is an introduction to three different approaches to understanding behavior: 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 behavior as a complex, dynamic phenomenon, allowing students to appreciate the diversity as well as the commonality between their own behavior 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.

### c. COURSE AIMS

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

- develop an understanding of the biological, cognitive and sociocultural factors affecting mental processes and behavior
- apply an understanding of the biological, cognitive and sociocultural factors affecting mental processes and behavior 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.

## GLOBAL POLITICS

### b. COURSE OVERVIEW

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

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

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

### c. COURSE AIMS

- The aims of the global politics course at SL and at HL are to enable students to:
- explore and evaluate power in contemporary global politics
- examine how state and non-state actors operate and interact within political systems
- investigate and analyze contemporary political issues and challenges from multiple perspectives
- develop a lifelong commitment to active global citizenship through collaboration and agency.

## ECONOMICS

### b. COURSE OVERVIEW

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 behavior 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.

### **c. COURSE AIMS**

- 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 analyze 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.

## **BUSINESS MANAGEMENT**

### **b. COURSE OVERVIEW**

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 analyze, 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.

### **c. COURSE AIMS**

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

- Encourage a holistic view of the world of business
- Empower students to think critically and strategically about individual and organizational behavior
- Promote the importance of exploring business issues from different cultural perspectives
- Enable the student to appreciate the nature and significance of change in a local, regional and global context
- Promote awareness of the importance of environmental, social and ethical factors in the actions of individuals and organizations
- Develop an understanding of the importance of innovation in a business environment

## **Subject Group 4 - Natural Sciences**

### **a. SUBJECT OPTIONS**

- Biology
- Chemistry
- Physics
- Environmental Systems

## **BIOLOGY**

### **b. COURSE OVERVIEW**

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, analyze results, collaborate with peers and evaluate and communicate their findings.

## CHEMISTRY

### b. COURSE OVERVIEW

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, analyze results and evaluate and communicate their findings.

## PHYSICS

### b. COURSE OVERVIEW

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, analyze results and evaluate and communicate their findings.

### c. AIMS - CHEMISTRY, PHYSICS AND BIOLOGY

Through the overarching theme of the nature of science, the aims of the DP chemistry, physics and biology courses are to enable 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 analyze, 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.

## ENVIRONMENTAL SYSTEMS AND SOCIETIES

### b. COURSE OVERVIEW

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 subject 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 analyze 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.



## Subject Group 5 - Mathematics

### a. SUBJECT OPTIONS

- Mathematics Analysis & Approaches
- Mathematics Applications & Interpretations

## MATHEMATICS ANALYSIS & APPROACHES

### b. COURSE OVERVIEW

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.

## MATHEMATICS APPLICATIONS & INTERPRETATIONS

### b. COURSE OVERVIEW

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 modeling. 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.

### c. COURSE AIMS

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 instill 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, inter-national 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



## Subject Group 6 - The Arts

### a. SUBJECT OPTIONS

- Music
- Visual Arts

### MUSIC

### b. COURSE OVERVIEW

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

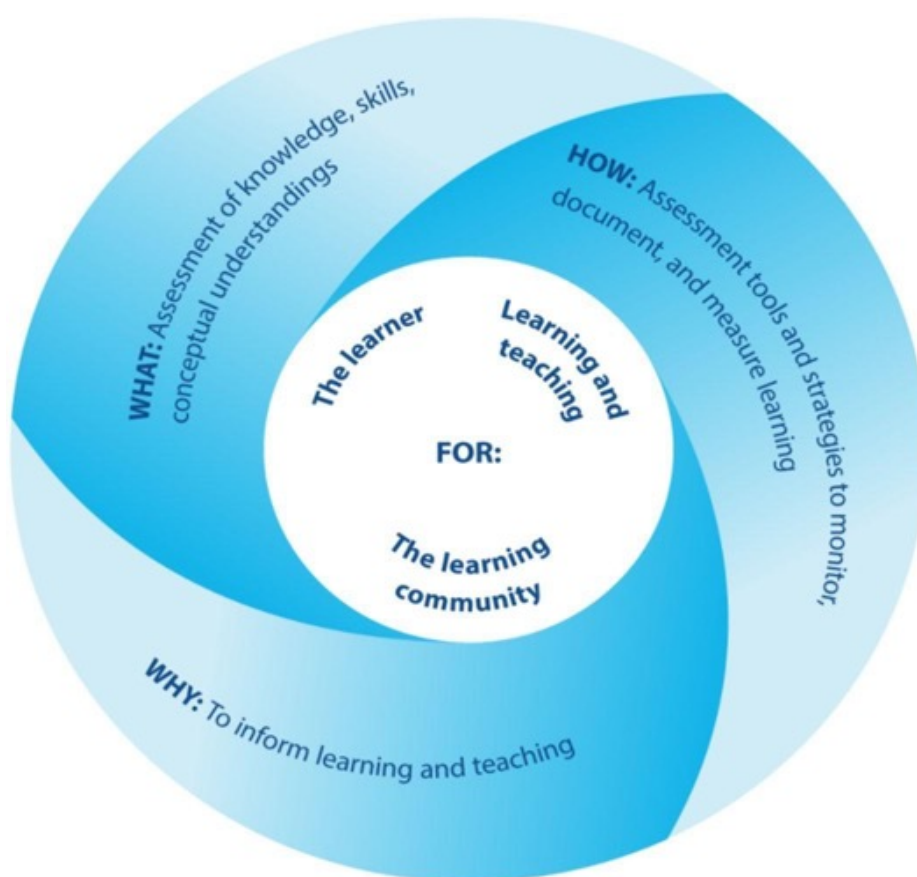
The curriculum moves into alignment with other DP arts courses, through the clear articulation of the balance between the theoretical and practical disciplines of music. A new set of assessment tasks that link directly to the processes and roles experienced in the curriculum have been developed. These 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. 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 personalize unique approaches to musical forms, genres and pieces. The exploration of diverse musical material is focused through the lenses of four areas of inquiry.

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

### c. COURSE AIMS

By the end of the course students will have:

- broadened their musical horizons through engagement with diverse musical material
- analyzed 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
- engaged with a diverse range of music that will broaden their musical horizons and provide stimuli to expand their own music-making
- connected theoretical studies to practical work to gain a deeper understanding of the music they engage with
- communicated and presented music as researchers, creators and performers.





## VISUAL ARTS

### b. COURSE OVERVIEW

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.

### c. COURSE AIMS

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

- enjoy lifelong engagement with the arts
- become informed, reflective and critical practitioners in the arts
- understand the dynamic and changing nature of the arts
- explore and value the diversity of the arts across time, place and cultures
- express ideas with confidence and competence
- develop perceptual and analytical skills.
- In addition, the aims of the visual arts course at SL and HL are to enable students to:
- make artwork that is influenced by personal and cultural contexts
- become informed and critical observers and makers of visual culture and media
- develop skills, techniques and processes in order to communicate concepts and ideas.

## 6. Assessment

All IB programmes are informed by assessment, as indicated in the IB approaches to teaching. While assessments look different in each programme, all IB assessment methods are varied and fit for purpose. Assessment is central to the Diploma Programme (DP) goal of thoughtfully and effectively supporting students through the acquisition of subject-specific knowledge and skills, the understanding of concepts and the development of approaches to learning.

The development of knowledge, conceptual understandings and skills requires that both teachers and students demonstrate assessment capability.

### Characteristics of effective assessment

Highly effective assessment shares some key characteristics (Adapted from Clarke 2012).

- **Authentic:** It supports making connections to the real world to promote student engagement.
- **Clear and specific:** This includes desired learning goals; success criteria and the process students use to learn.
- **Varied:** It uses a wider range of tools and strategies that are fit for purpose in order to build a well-rounded picture of student learning.
- **Developmental:** It focuses on an individual student's progress rather than their performance in relation to others.
- **Collaborative:** It engages both teachers and students in the assessment development and evaluation process.
- **Interactive:** Assessment encompasses ongoing and iterative dialogues about learning.
- **Feedback to feedforward:** It provides feedback on current learning to inform what is needed to support future learning (Hattie, Timperley 2007) and raises students' motivation.

### Assessment in the Diploma Program

Teachers assess learning based on the 7 point IB achievement scale. The 7 point scale correlates to the IB prescribed levels of achievement (DP Grade Descriptors).

Assessment for each subject is based on

1. IB internal assessment tasks
2. Practice papers for DP assessments
3. Developmentally appropriate preparatory tasks for DP assessment

Throughout the year teachers **MUST** assign a variety of formative assessment tasks in order to prepare students for the summative assessments. Teachers regularly modify DP Papers for summative or formative evaluation and constantly give practice questions taken from past DP Exam Papers.

### Determining and Reporting Final DP Grades

The final grade of 7 correlates to a Ministry of Education Local Grade according to the established conversion. This conversion is used for Ministry reporting and transcripts only.

All grading feedback is to be done according to the 7 point scale (except for TOK and Extended Essay, which are assessed using the A-E scale specific to the DP Core).

At the end of each partial, an overall grade is communicated to parents through a progress report, yet there is no final grade determined at this point. Holistic grades will be determined and reported at mid year and at the end of the academic year. Teachers look at all the scores for each summative assessment and determine, through holistic judgment, the final score based on the DP Grade Descriptors. A holistic judgment decision is made based on the most recent, relevant and most representative scores but should not be lower than the average of the summative assessments, nor should the final score be higher than the highest score achieved. Formative assessments will be used to inform holistic judgment. Teachers need to provide sufficient evidence to justify their holistic decision by providing a variety of types of summative assessments through each semester.

### **Mid term and final Exams (MYP and DP)**

Mid term and final exams are cumulative in nature for the time period covered (two partials) and should be completed during the exam schedule. These exams should be considered significant summatives when making a holistic judgment evaluation for the semester grade, as they are the most recent assessment and are cumulative.

All teachers give a sit-down midterm / final exam assigning a DP sample paper that is appropriate for 90 minutes of writing time. PE and Arts may use a portfolio format but students must complete a self-assessment reflection activity connected to the Assessment Criteria during the exam period. All exams must be graded using IB rubrics or markschemes.

## **7. Academic integrity**

### **Academic Integrity**

All IB Programs have honesty, trust, fairness, respect, and responsibility as fundamentals for Academic Integrity practices.

### **FCAQ Academic Integrity Policy**

Our Academic Integrity Policy establishes what constitutes malpractice and misconduct. All community members are responsible for executing best academic integrity practices. In a teaching and learning culture of academic integrity, all adult community members need to be explicit of what academic integrity is and isn't, reinforce good research habits, design creative and varied assignments that focus on the importance of the product, and model ethical use of information.

The Secondary Section uses the Academic Honesty Guide as a resource for teachers, students and administrators.

## **8. Inclusion**

As an IB school, FCAQ believes that all students can learn with a unique process and all students have the right to learn at their own pace and with their particular learning style. Each classroom is a specialized learning environment where students' needs and interests define the planning, instruction and assessment.

The IB has identified 4 good practices that promote student equitable access to the curriculum:

- affirmation of identity and development of self-esteem
- value of previous knowledge
- scaffolding
- expanding of learning

### **FCAQ Inclusion Policy**

The Inclusion Team is composed of various members, led by the Learning Specialists. The Learning specialists play two roles; one, be an inclusion coach for the teachers and two, lead the Support Program.

**Inclusion Coach:** the LS works with the core teacher(s) to guide their instructional practices; so that all planning, teaching and assessment practices are inclusive for all students. In this role, the Learning Specialist is in charge of guiding the grade level team on designing instruction where the learning barriers are eliminated.

**Support Program Leader:** This Program is designed for students in Tier III, with specific educational, physical and/or emotional needs. This team is also made of the Guidance Counselor, Speech Therapist, ELL Specialist, Administration, teachers, parents and student.

### **UDL**

An important element in inclusive instruction is CAST's Universal Design for Learning tool. Teachers, with the support and guidance of the Instructional Coach and Learning Specialist are responsible for designing learning experiences using this tool, to make sure all student needs, interests, and learning styles are taken into account.

## **9. Language**

At FCAQ, all teachers are language learners. Therefore, language learning is embedded in every subject area.

## **We believe that:**

- International Mindedness is fostered through language: when students learn a language, they learn a culture.
- Agency is achieved through translanguageing: students switch from one language to another to think metacognitively and transfer knowledge.
- Language is acquired in an authentic and structured environment.
- To maximize exposure to the language, teachers and students must communicate in the language of instruction beyond the classroom.
- Honoring and enhancing the student's language of socialization affirms cultural identity.
- Language is the key foundation for Literacy.

As part of its mission and vision, FCAQ offers a bilingual program. All FCAQ students are language learners (mostly English language learners, as the majority of our student population has Spanish as their first language).

Language acquisition to achieve bilingualism is scaffolded, depending on the grade level and student development. As language is the foundation of the Literacy Process, this process is begun in the student's first language.

With those students whose first language is different from Spanish or English, we aim to identify and promote their home language and culture in our community. Our teachers are strongly encouraged to integrate the student and the family home language and culture into the inquiry process and learning experiences.

## **10. Sources**

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