



Al Zahra College  
Diploma Programme  
Curriculum Guide



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## Dear Year 10 Students,

Welcome to the Diploma Programme Subject Selection Information Day. The mission of Al Zahra College is to educate young Muslims to be fearless thinkers with moral courage and compassion to be agents of change in their own lives and the lives of others. This is developed in a supportive, challenging and enriching environment. To further provide students with the best opportunity for their future, Al Zahra College offers a major academic pathway, The International Baccalaureate (IB).

There are many people within Al Zahra College who can assist you with your course selection. It is important that you discuss your options with people who know you well, staff who are familiar with the course details and the Careers Counsellor who is up to date with tertiary courses and their requirements. Students who have been very successful in the past have invested valuable time and energy in judicious course selection.

Before determining a program to suit your needs, take the time to read through the IB Curriculum Guides and think about which subjects you are good at, which ones you enjoy and which ones interest you.

The following program combines to contribute to your decision-making process:

- ^ Your Careers Assessment Report
- ^ Your Academic Reports (Year 10 half-yearly and yearly)
- ^ The subject information talks by leading subject teachers
- ^ The Subject Selection Information Day
- ^ Subject Selection Interviews with individual students, parents and Diploma Programme Coordinator by appointment from Term 3

Senior School life at Al Zahra College is rich and varied. You are encouraged to participate in a range of activities that provide balance to your academic program, and which may develop into lifelong interests. You may choose to participate in the Student Representative Council, Debating Club, Sporting events or one of the many other groups or events that we offer.

I wish you every success in choosing your pathway to your future.

**Note: The courses listed in this handbook are offered subject to availability and sufficient numbers. There is no guarantee that all courses will run in 2022–2023. Students may have to reselect.**

**Dr Wissam Mustapha**  
*Headmaster*

**Ms Kothar El-Rida**  
*Diploma Programme Coordinator*

# Al Zahra College

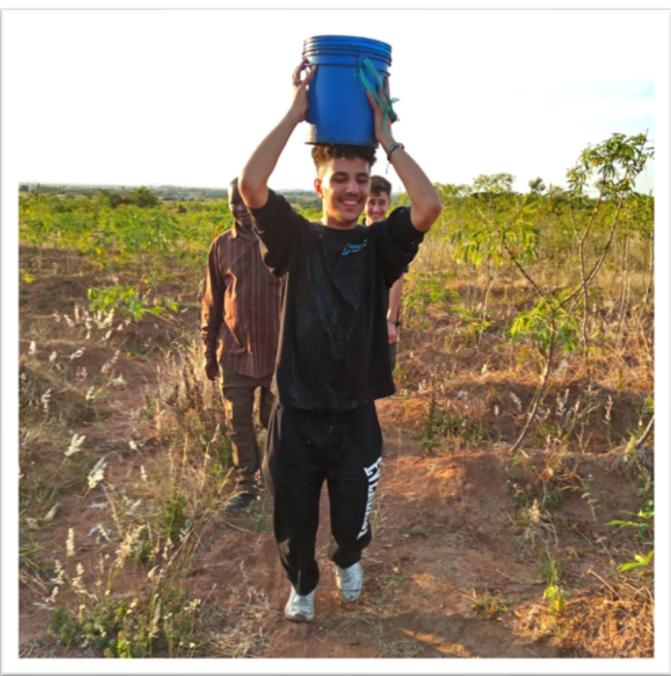
## Al Zahra College

### Our Mission

Al Zahra College aims to develop faithful, knowledgeable and wise young people who take responsibility for creating a better and more peaceful world. We will challenge our students to become active learners and critical thinkers who promote intercultural understanding and respect. Therefore, we aim to develop internationally minded learners who strive to be inquirers, knowledgeable, thinkers, communicators, principled, open-minded, caring, risk-takers, balanced and reflective.

### Our Vision

Al Zahra College will provide, for all students, an outstanding learning environment that offers high quality educational programs, encourages each student to pursue personal and academic excellence, develops a strong and productive relationship between our staff and our parents, and provides students with an excellent foundation for lifelong learning.



*A Year 11 CAS experience venturing to Africa. The International Baccalaureate is endless in its possibilities in nurturing caring young people.*

### Internationalism at Al Zahra College

At Al Zahra College, we agree that global citizenship is an integral part of education. To be a global citizen is to understand and promote basic human rights, to know the nature of our physical and social world, and to be aware that our actions impact others and the planet. This goal is best accomplished by knowing ourselves and knowing our place in the world through the cultural backgrounds of all members of our community. Through this knowledge, we strive for a level of empathy that will direct our actions.

### IB Mission Statement

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.

To this end, the IB works with schools, governments and international organisations to develop challenging programmes of international education and rigorous assessment.

These programmes encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right.<sup>1</sup>

<sup>1</sup> International Baccalaureate Organisation©

# The Continuum

## The IB Continuum at Al Zahra College

As an IB Continuum school, Al Zahra College provides learners with a continuous educational programme that emphasises the IB mission in action from Kindergarten through to Grade 12. Rather than simply offering three distinct programmes, the continuum ensures that students are developing skills and attributes throughout their entire school experience that will prepare them to be lifelong learners.

An IB Continuum education:

- ^ centres on learners.
- ^ develops effective approaches to teaching and learning.
- ^ works within global contexts; and
- ^ explores significant content.

Students of all ages come to school with combinations of unique and shared patterns of values, knowledge, and experience of the world and their place in it. Promoting open communication based on understanding and respect, the IB encourages students to become active, compassionate, lifelong learners. An IB education is holistic in nature – it is concerned with the whole person. Along with cognitive development, IB programmes address students' social, emotional, and physical well-being. They value other opportunities for students to become active and caring members of local, national, and global communities; they focus attention on the values and outcomes of internationally minded learning described in the IB Learner Profile. These attributes represent a broad range of human capacities and responsibilities that go beyond intellectual development and academic

success. They imply a commitment to help all members of the school community learn to respect themselves, others, and the world around them. IB programmes aim to increase access to the curriculum and engagement in learning for all students. Learning communities become more inclusive as they identify and remove barriers to learning and participation. Commitment to access and inclusion represents the IB Learner Profile in action.

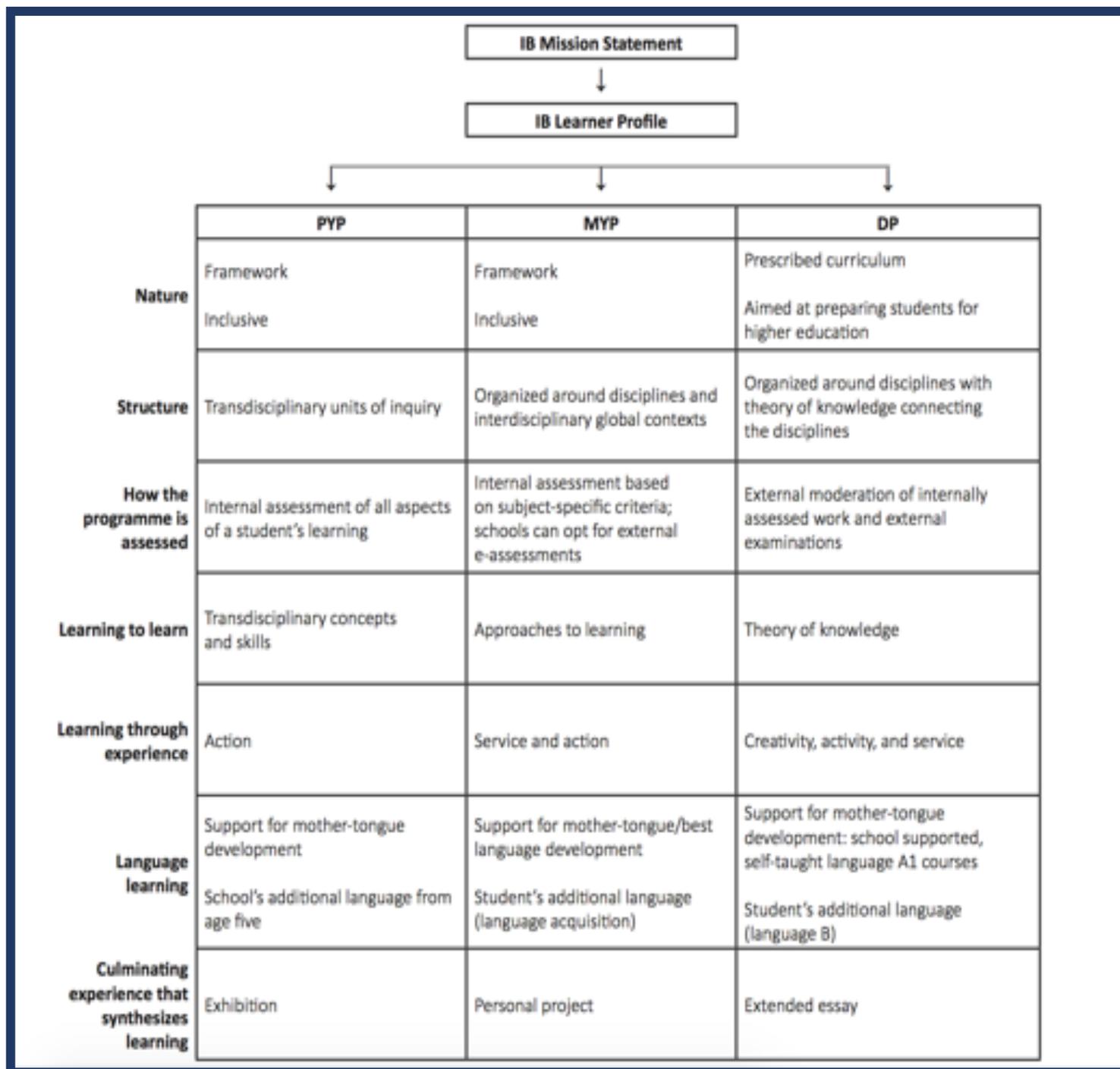
The IB Learner Profile brings to life the aspirations of a community of IB World Schools dedicated to student- centred education. We:

- ^ create educational opportunities that encourage healthy relationships, individual and shared responsibility, and effective teamwork and collaboration.
- ^ help students make informed, reasoned, ethical judgments and develop their perseverance, and confidence they need to bring about meaningful change.
- ^ inspire students to ask questions, to pursue personal aspirations, to set challenging goals, and to develop the persistence to achieve them; and
- ^ encourage the creation of rich personal and cultural identities. As an IB Continuum School, Al Zahra College emphasises learning how to learn, helping students interact effectively with the learning environments they encounter, and encouraging them to value learning as an essential and integral part of their everyday lives.

# The Transition

## Facilitating the Transition Among IB Programmes

The diagram below is taken from *Towards a Continuum of International Education* (September 2008). This diagram outlines the key features of the three IB programmes.



# The International Baccalaureate Diploma

## The Diploma Programme at AZC

Al Zahra College has been an IB World School since its inception. This means that we:

- ^ Share the mission and commitment of the IB to quality international education
- ^ Play an active and supporting role in the worldwide community of IB schools
- ^ Share their knowledge and experience in the development of IB programmes
- ^ Are committed to the professional development of teachers

The IB Diploma Programme is a comprehensive and rigorous pre-university course of study for motivated students that combines a range of subjects with a program of:

- ^ Research through the Extended Essay
- ^ Creativity, Activity and Service (CAS)
- ^ Theory of Knowledge (ToK), a course designed for students to be able to ask, 'How do we know what we know?'

The programme is based on the International Baccalaureate Organisation's (IBO) Mission Statement:

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

To this end the organisation works with schools, governments and international organisations to develop challenging programs of international education and rigorous assessment.

These programmes encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right.'<sup>1</sup>

<sup>1</sup>International Baccalaureate Organisation©

Over the duration of the course, IB students work towards developing in the areas listed by the Learner Profile. The IBO considers that internationally minded learners are:

- ^ Inquirers
- ^ Communicators
- ^ Balanced
- ^ Reflective
- ^ Knowledgeable
- ^ Principled
- ^ Thinkers
- ^ Risk-takers
- ^ Caring
- ^ Open-minded

The learner profile is a core component of the Diploma Programme and based on the mission statement. IB students are encouraged to develop in all these areas to the best of their ability.

## Structure of the Programme

Diploma students choose one subject from each of the first five areas listed below and then a sixth from either The Arts, Language Acquisition, Individuals and Society, or Sciences:

- ^ Studies in Language and Literature
- ^ Language Acquisition
- ^ Individuals and Society
- ^ Sciences
- ^ Mathematics
- ^ Either an Arts subject (Visual Arts) or a second subject from Individuals and Society and Sciences.

Extended Essay, CAS and ToK are a compulsory component of the course

There are no prerequisite subjects for Individuals and Society. Students can study Business Management without studying Commerce. Geography and History skills are covered during Year 7 to Year 10.

- ^ The Arts subjects require students to have studied these areas to Year 10 level and achieved a strong level of attainment.

- ^ Language Acquisition is offered on two levels:

- I. Ab Initio – Beginners (Arabic)  
To be eligible for ab initio language courses a student:
  - ∧ Must have had no formal education in a school system where that language is the language of instruction
  - ∧ Must not have resided for more than three years in the last 10 years in a country where the language is the medium of communication
  - ∧ Must not have regularly and consistently attended Saturday school of Community Languages in that language
- II. Language B – language continuers (Arabic SL or HL)  
Students wishing to study a language at B level should have studied this language for a minimum of four years.



[www.ibo.org/diploma/curriculum](http://www.ibo.org/diploma/curriculum)

## Scoring the Diploma

A Diploma score is out of 45. This consists of: Six subjects with a maximum grade of 7 (42) and up to three bonus points for the Extended Essay and Theory of Knowledge assessment.

This mark out of 45 is equated with a University Admissions Centre (UAC) Rank/ATAR Equivalent for entry into tertiary institutions that do not have a specific IB Diploma score requirement. There is no scaling applied by UAC between the Diploma score and the UAC Rank/ATAR Equivalent.

## The Extended Essay

Diploma candidates are required to submit an essay of 4000 words on an area of interest to the student. It is marked externally according to published criteria. It is due in July of the second year of the Diploma and contributes to the potential bonus points for the candidate's score. The students work closely with their supervisor who is a staff member with a particular interest in the area nominated by the student. Candidates also receive assistance and instruction from the library staff as well as a timetable for completion.

## Theory of Knowledge

Students undertake a course in Theory of Knowledge (ToK) over the two years of the Diploma. The TOK course provides students with an opportunity to explore and reflect on the nature of knowledge and the process of knowing. In this way, the 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. Students are encouraged to examine the evidence for claims and to consider, for example, how we distinguish fact from opinion, or how we evaluate the credibility of claims that we are exposed to in the media. They explore different methods and tools of inquiry and try to establish what it is about them that makes them effective, as well as considering their limitations.

### ToK Assessment Outline

#### Internal assessment

##### Theory of knowledge exhibition (10 marks)

For this component, students are required to create an exhibition that explores how TOK manifests in the world around us. This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.

**1/3 (33%)**

#### External assessment

##### TOK essay on a prescribed title (10 marks)

For this component, students are required to write an essay in response to one of the six prescribed titles that are issued by the IB for each examination session. As an external assessment component, it is marked by IB examiners.

**2/3 (67%).**

# The International Baccalaureate Diploma

## **Creativity, Activity and Service (CAS)**

CAS is at the heart of the Diploma Programme. With its holistic approach, CAS is designed to strengthen and extend students' personal and interpersonal learning.

CAS is organised around the three strands of **Creativity, Activity** and **Service** defined as follows:

**Creativity** – Exploring and extending ideas leading to an original or interpretative 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

As a shining beacon of the IB values, CAS enables students to demonstrate attributes of the IB Learner Profile in real and practical ways, to grow as unique individuals and to recognise their role in relation to others. Students develop skills, attitudes and dispositions through a variety of individual and group experiences that provide students with opportunities to explore their interests and express their passions, personalities and perspectives. CAS complements a challenging academic program in a holistic way, providing opportunities for **self-determination, collaboration, accomplishment** and **enjoyment**.

CAS enables students to enhance their personal and interpersonal development. A meaningful CAS program is a journey of discovery of self and others. For many, CAS is profound and life changing. Each individual student has a different starting point and different needs and goals. A CAS program is, therefore, individualised according to student interests, skills, values and background.

### **CONTACT**

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The three elements of CAS mutually reinforce one another. Together, they enable students to recognise that there are many opportunities to learn about life, self and others, and to inspire confidence, determination and commitment. Creative and physical activities are particularly important for adolescents and they offer many favourable situations for leisure and enjoyment at a time that is for many young people stressful and uncertain. The service element of CAS is perhaps the most significant of the three, in terms of the development of respect for others, and of responsibility and empathy.

## **Tertiary Entrance**

Students completing the IB Diploma have a range of options both in Australia and overseas. The Diploma is accepted at all Australian universities either as a direct entry score or as the result of the ATAR Equivalent. Students apply to tertiary institutions in the same way as students completing the HSC.

International institutions have differing entry requirements although a number list their specific Diploma scores for admission. Published data from the USA, Australia and the UK indicate that the IB Diploma Programme is highly regarded by universities in these areas.

If you would like more information regarding the Diploma Programme, you can:

- ^ Look at the IBO website: [ibo.org](http://ibo.org) (for general IB and Diploma information)
- ^ Speak to an IB student
- ^ Contact Marian Beydoun, Careers Counsellor, on (02) 9599 0161 or [mbeydoun@azc.nsw.edu.au](mailto:mbeydoun@azc.nsw.edu.au)

### **CONTACT**

#### **Theory of Knowledge Coordinator**

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# Principles of the IB

## Principles of the IB Diploma Programme

**An IB Diploma opens many doors.** It has become the gold standard for university entrance. Universities aggressively recruit IB students for very good reasons: IB students already know how to work hard and manage their time; they already have university-level skills and knowledge; they bring a global perspective to their studies; and they contribute to their university and wider community. Because they value the Diploma Programme so much, universities not only often grant first year credit for Diploma courses, but also offer important benefits such as early registration, placement in dormitories, and academic advising – to say nothing of generous entrance scholarships.

**The IB Diploma Programme is more than a collection of courses.** The Diploma is synoptic by design. In other words, the six academic subjects are meant to work together. Although students rigorously learn the language, concepts, and methods of the various academic disciplines, the Diploma is inherently interdisciplinary. Teachers and students are invited to make connections between their academic subjects – a process formalised by Theory of Knowledge (ToK). The other core requirements – the Extended Essay (EE) and Creativity, Action, and Service (CAS) – allow students to extend their learning beyond the classroom into individual research and personal action.

**The IB Diploma Programme is intended to be balanced.** Classroom learning in the six academic subjects is balanced by the experiential learning of CAS, ToK, and the Extended Essay.

**The IB Diploma Programme is a two-year endeavour.** The program is designed as a two-year educational experience and most DP courses will be completed over a two-year period. When students embark, they are committing themselves to two years of concentrated and connected study. Activities such as the mock exams, and the internal assessments will be their landmarks on this journey, so that Grade 11 and 12 will blend into one another – not the normal high school experience at all.

**The IB Diploma Programme allows ample choice.** The Diploma Programme is not meant to be a monolith. Although we face some constraints at Al Zahra College because of our size, we are still able to

offer an impressive array of courses, including: four different sciences at the higher and standard levels, math courses designed for arts or science students, three levels of language instruction, and a variety of classroom electives. Most students find that they have ample opportunity to pursue their interests and to play to their strengths.

**The DP exams are rigorous, fair, and internationally recognised.** Perhaps the best part of the Diploma Programme is that we are all in it together. The assessment is comprehensive, transparent, and largely external. Students produce work to publicised standards and are graded by expert IB Examiners. Teachers see the results of their instruction in measurable terms and adjust their practice accordingly. The quality and nature of external assessment takes a great burden off staff and student alike. No one is trying to guess the criteria for success, and there is no question of favouritism. Teachers become more like guides and mentors than dispensers of knowledge, as they work with their students to achieve a common goal.

## Failing Conditions

### The IB Diploma will not be awarded to a candidate with any of the following:

- ^ CAS requirements have not been met
- ^ Candidate's total points are fewer than 24
- ^ An N has been given for Theory of Knowledge, Extended Essay or for a contributing subject
- ^ A grade E has been awarded for one or both of Theory of Knowledge and the Extended Essay
- ^ There is a grade 1 awarded in a subject/level
- ^ Grade 2 has been awarded three or more times (HL or SL)
- ^ Grade 3 or below has been awarded four or more times (HL or SL)
- ^ Candidate has gained fewer than 12 points on HL subjects.
- ^ Candidate has gained fewer than 9 points on SL subjects.

# Group 1: English A Language and Literature

## Group 1: English A Language and Literature

### English A: SL and HL

*"Literature adds to reality, it does not simply describe it"*  
– C.S. Lewis

#### Course Description and Aims

The IB Diploma Programme Language A: Language and Literature course develops understanding of the techniques involved in literary criticism and promotes the ability to form independent literary judgments. In Language A: Language and Literature, the formal analysis of texts and wide coverage of a variety of literature – both in the language of the subject and in translated texts from other cultural domains – is combined with a study of the way literary conventions shape responses to texts.

Students completing this course will have a thorough knowledge of a range of texts and an understanding of other cultural perspectives. They will also have effectively developed skills of analysis and the ability to support an argument in clearly expressed writing, sometimes of significant length. The course will enable them to succeed in a wide range of university courses, particularly in literature, but also in subjects such as Philosophy and Law.

#### Aims:

- ∧ Encourage a personal appreciation of literature and develop an understanding of the techniques involved in literary criticism
- ∧ Develop students' powers of expression, both in oral and written communication, and provide the opportunity of practising and developing the skills involved in writing and speaking in a variety of styles and situations
- ∧ Introduce students to a range of literary works of different period, genres, styles and contexts

#### CONTACT

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##### Teacher of Language and Literature

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## Components include:

- ^ Broaden students' perspective through the study of works from other cultures and languages
- ^ Introduce students to ways of approaching and studying literature, leading to the development of an understanding and appreciation of the relationships between different works
- ^ Develop the ability to engage in close, detailed analysis of written text
- ^ Promote in students an enjoyment of, and lifelong interest in, literature

## Curriculum Model Overview

- ^ **Readers, Writers and Texts** – a variety of literary and non-literary words (**SL**: 50 hours **HL**: 80 hours)
- ^ **Time and Space** - a variety of literary and non-literary words (**SL**: 50 hours **HL**: 80 hours)
- ^ **Intertextuality** - a variety of literary and non-literary words (**SL**: 50 hours **HL**: 80 hours)

## Assessment at a glance

Students will be formatively and summatively assessed, using the College's Approaches to Learning rubric, the course rubrics, and – on report cards – using the DP Group 1 grade descriptors on a scale of 1-7. Students' final Course Grade is based on their achievement on all assessments.

As part of the formative assessment, which contributes to the students' predicted grades, a **learner portfolio** will be produced. This is treated as a collection of the students' work over the two years of the Diploma Programme and is a formal requirement to successfully complete the course. The learner portfolio will be comprised of a variety of tasks and is a record of the students' process, progress and learning.

	SL	HL
Assessment Component	Weighting	
<b>External Assessment</b>		
<b>Paper 1: Guided textual analysis</b>	35% (75 minutes)	35% (135 minutes)
<b>Paper 2: Comparative Essay</b>	35% (105 minutes)	25% (105 minutes)
<b>HL Essay</b>		20%  1,200 – 1,500 words
<b>Internal Assessment</b>		
<b>Individual Oral</b>	30%	20%
15 minutes		
		<i>Supported by an extract from one non-literary text and one from a literary work, students will offer a prepared response of 10 minutes, followed by 5 minutes of questions by the teacher</i>

# Group 2: Language Acquisition

## Group 2: Language Acquisition

### Arabic Ab Initio

### Language B: SL and HL

*“To have another language is to possess a second soul”*  
-Charlemagne

#### Course Description

This course is a rigorous foreign language course for highly motivated secondary students who have already studied the target language for between two and five years prior to the beginning of the IB course. These students should have a broad vocabulary base, a sound knowledge of grammatical structures, the ability to manipulate the language and an understanding of stylistics.

The skills of listening, speaking, reading and writing are taught and developed through the study of a wide range of oral and written texts of different styles and registers. The teaching of an appropriate range of grammatical structures is integrated as far as possible with the study of themes and texts and the acquisition of skills. These themes will extend from everyday situations to literary texts and discussions of abstract ideas. The skills developed through the exploitation of the themes are text-handling, written production, listening and oral.

#### Aims

- ^ Enable students to understand and use the language they have studied in a range of contexts and for a variety of purposes
- ^ Enable students to use the language appropriately
- ^ Encourage, through the study of texts and through social interaction, an awareness and appreciation of the different perspectives of people from other cultures
- ^ Develop students' awareness of the role of language in relation to other areas of knowledge
- ^ Provide the opportunity for enjoyment, creativity and intellectual stimulation through knowledge of a language
- ^ Provide students with a basis for further study, work and leisure through language
- ^ Develop students' awareness of the relationship between the languages and cultures with which they are familiar.

#### CONTACT

#### Faculty Leader of and Teacher of Language Acquisition

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## Studying Online Through Pamoja Education

- ^ Pamoja Education works in close collaboration with the IB to develop and deliver authorised online Diploma Programme courses.
- ^ A Pamoja course currently costs US\$1230 for 2019/2020. These fees are in addition to the normal tuition fees charged by the school.
- ^ Students may enrol in Mandarin ab initio, Spanish ab initio or French ab initio.

### Assessment at a glance

The approach to assessment used by the IB is criterion-related, not norm-referenced. This approach to assessment judges' students' work by their performance in relation to identified levels of attainment, and not in relation to the work of other students.

### Ab initio

Assessment component	Weighting
<b>External assessment</b>	
<b>Paper 1 (60 minutes)</b> Productive skills—writing (30 marks)  Two written tasks of 70–150 words each from a choice of three tasks, choosing a text type for each task from among those listed in the examination instructions.	25%
<b>Paper 2 (105 minutes)</b>  Receptive skills—separate sections for listening and reading (65 marks)  Listening comprehension (45 minutes) (25 marks)  Reading comprehension (60 minutes) (40 marks)  Comprehension exercises on three audio passages and three written texts, drawn from all five themes.	25%
<b>Internal assessment</b>	
<b>Individual oral assessment</b>  A conversation with the teacher, based on a visual stimulus and at least one additional course theme. (30 marks)	25%

## SL

Assessment component	Weighting
<b>External assessment</b>	
<b>Paper 1 (75 minutes)</b> Productive skills—writing (30 marks)  One writing task of 250–400 words from a choice of three, each from a different theme, choosing a text type from among those listed in the examination instructions.	25%
<b>Paper 2 (105 minutes)</b> Receptive skills—separate sections for listening and reading (65 marks)  Listening comprehension (45 minutes) (25 marks)  Reading comprehension (60 minutes) (40 marks)  Comprehension exercises on three audio passages and three written texts, drawn from all five themes.	25%
<b>Internal assessment</b>	
<b>Individual oral assessment</b>  A conversation with the teacher, based on a visual stimulus and at least one additional course theme. (30 marks)	25%

## HL

Assessment component	Weighting
<b>External assessment</b>	
<b>Paper 1 (90 minutes)</b> Productive skills—writing (30 marks)  One writing task of 450–600 words from a choice of three, each from a different theme, choosing a text type from among those listed in the examination instructions.	25%
<b>Paper 2 (120 minutes)</b> Receptive skills—separate sections for listening and reading (65 marks)  Listening comprehension (60 minutes) (25 marks)  Reading comprehension (60 minutes) (40 marks)  Comprehension exercises on three audio passages and three written texts, drawn from all five themes.	25%
<b>Internal assessment</b>	
<b>Individual oral assessment</b>  A conversation with the teacher, based on a visual stimulus and at least one additional course theme. (30 marks)	25%

# Group 3: Individuals and Society

## Group 3: Individuals and Societies Overview of the Business Management, Social and Cultural Anthropology and History Courses.

### Aims

The aims of all subjects in Individuals and Society are to:

- ∧ Encourage the systematic and critical study of human experience and behaviour; physical, economic and social environments; the history and development of social and cultural institutions
- ∧ Develop in the student the capacity to identify, to analyse critically and to evaluate theories, concepts and arguments about the nature and activities of the individual and society
- ∧ Enable the student to collect, describe and analyse data used in studies of society, to test hypotheses and interpret complex data and source material
- ∧ Promote the appreciation of the way in which learning is relevant to both the culture in which the student lives, and the culture of other societies
- ∧ Develop an awareness in the student that human attitudes and opinions are widely diverse and that a study of society requires an appreciation of such diversity
- ∧ Enable the student to recognise that the content and methodologies of the subjects are contestable and that their study requires the toleration of uncertainty

### CONTACT

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## Business Management SL and HL

*“The conventional definition of management is getting work done through people, but real management is developing people through work.”*

– Agha Hasan Abedi

The business management course is designed to meet the current and future needs of students who want to develop their knowledge of business content, concepts and tools to assist with business decision-making.

Future employees, business leaders, entrepreneurs or social entrepreneurs need to be confident, creative and compassionate as **change agents** for business in an increasingly interconnected global marketplace. The business management course is designed to encourage the development of these attributes.

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

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

### Course Description

The IB Business Management Standard and Higher-Level courses aim to provide students with a core knowledge of business theories, principles, practices and skills; to encourage students to think critically and strategically about business, and to promote an understanding of corporate social responsibility and internationalism. Standard and Higher-Level students study the same five units, the same four concepts, the same toolkit and the same case study. Standard Level students go into less depth than students studying at Higher Level.

## Curriculum Model Overview

- ^ **Unit 1: Introduction to business management (SL: 20 hours HL: 20 hours)**
- ^ **Unit 2: Human resource management (SL: 20 hours HL: 35 hours)**
- ^ **Unit 3: Finance and accounts (SL: 30 hours HL: 45 hours)**
- ^ **Unit 4: Marketing (SL: 30 hours HL: 35 hours)**
- ^ **Unit 5: Operations management (SL: 15 hours HL: 45 hours)**

### Assessment at a glance

Students will be formatively and summatively assessed, using the College's Approaches to Learning rubric, the course rubrics, and – on report cards – using the DP Group 3 grade descriptors on a scale of 1-7. Students' final Course Grade is based on their achievement on all assessments and their Internal Assessment task.

	SL	HL
Assessment Component	Weighting	
<b>External Assessment</b>		
<b>Paper 1:</b> Based on a pre-released statement that specifies the <i>context</i> and <i>background</i> for the unseen case study. Structured questions/essay	35% (90 minutes/30 marks)	25% (90 minutes/30 marks)
<b>Paper 2:</b> Based on the unseen stimulus material with a quantitative focus. Structured questions/essay	35% (90 minutes/40 marks)	30% (105 minutes/50 marks)
<b>Paper 3:</b> Based on unseen stimulus material about a social enterprise. Essay question.		25% (75 minutes/25 marks)
<b>Internal Assessment</b>		
<b>Business Research Report</b>	30% <b>Research Project</b> Students produce a research project about a real business issue or problem facing a particular organisation using a conceptual lens. Maximum 1,800 words. (25 marks)	20% <b>Research project</b> Students produce a research project about a real business issue or problem facing a particular organization using a conceptual lens. Maximum 1,800 words. (25 marks)

## History SL and HL

*"We are not makers of history. We are made by history."*  
– Martin Luther King, Jr.

History is a dynamic, contested, evidence-based discipline that involves an exciting engagement with the past. It is a rigorous intellectual discipline, focused on key historical concepts such as change, causation and significance. History is an exploratory subject that fosters a sense of inquiry. It is also an interpretive discipline, allowing opportunity for engagement with multiple perspectives and a plurality of opinions. Studying history develops an understanding of the past, which leads to a deeper understanding of the nature of humans and of the world today. The IB Diploma Programme 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 emphasises the importance of encouraging students to think historically and to develop historical skills as well as gaining factual knowledge. It puts a premium on developing the skills of critical thinking, and on developing an understanding of multiple interpretations of history. In this way, the course involves a challenging and demanding critical exploration of the past.

### Aims

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

- ^ Develop an understanding of, and continuing interest in, the past
- ^ Encourage students to engage with multiple perspectives and to appreciate the complex nature of historical concepts, issues, events and developments
- ^ Promote international mindedness through the study of history from more than one region of the world
- ^ Develop an understanding of history as a discipline and to develop historical consciousness including a sense of chronology and context, and an understanding of different historical perspectives
- ^ Develop key historical skills, including engaging effectively with sources

- ^ Increase students' understanding of themselves and of contemporary society by encouraging reflection on the past

### Curriculum Model Overview

- ^ **Unit 1: Prescribed Subject (SL: 40 hours HL: 40 hours)**
  - o South African Apartheid
  - o USA Civil Rights Movement
- ^ **Unit 2: World History (SL: 90 hours HL: 90 hours)**
  - o World Wars I and II
  - o Spanish and Chinese Civil Wars
  - o Adolf Hitler and Gamel Abdel Nasser
- ^ **HL Option only**
  - o **Unit 3: History of Africa and the Middle East (90 hours)**
    - Arab-Israeli Conflict 1914 - 2000

### Distinction between SL and HL

Students at Standard Level (SL) and Higher Level (HL) are presented with a syllabus that has a common core consisting of prescribed subjects and topics in World History. In addition, students at HL are also required to undertake an in-depth study of three sections from one of the HL regional options, and in the College's instance, Africa and the Middle East.

### Assessment at a glance

Students will be formatively and summatively assessed, using the College's Approaches to Learning rubric, the course rubrics, and – on report cards – using the DP Group 3 grade descriptors on a scale of 1-7. Students' final Course Grade is based on their achievement on all assessments and their historical investigation.

	SL	HL
Assessment Component	Weighting	
<b>External Assessment</b>		
<b>Paper 1:</b> OPVCL paper	30% (60 minutes/25 marks)	20% (135 minutes/60 marks)
<b>Paper 2:</b> answer two essays questions	45% (90 minutes/30 marks)	25% (135 minutes/70 marks)
<b>Paper 3:</b> answer three essay questions		35% (150 minutes/45 marks)
<b>Internal Assessment</b>		

Historical Investigation	25%	20%
Students are required to complete a historical investigation into a historical topic of their choice. This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.		

### Social and Cultural Anthropology SL and HL

*Anthropology is the science which tells us that people are the same the whole world over - except when they are different.*

– Nancy Banks Smith

The IB Diploma Programme social and cultural anthropology course offers an opportunity for students to explore and understand humankind in all its diversity through the comparative study of culture and human societies.

In studying this course students will come to appreciate how anthropology as a discipline contributes to an understanding of contemporary issues, such as war and conflict, the environment, poverty, injustice, inequality and human and cultural rights. The study of social and cultural anthropology offers critical insight into the continuities as well as dynamics of social change and the development of societies, and challenges cultural assumptions. It allows students to develop the capacity to recognise preconceptions and assumptions of their own social and cultural environments through an exploration of both the familiar and unfamiliar worlds of other people.

### Curriculum Model Overview

- ^ **Part 1:** Engaging with anthropology
- ^ **Part 2:** Engaging with ethnography
- ^ **Part 3:** Engaging with anthropological practice (fieldwork)

### Assessment at a glance

Students will be formatively and summatively assessed, using the College's Approaches to Learning rubric, the course rubrics, and – on report cards – using the DP Group 3 grade descriptors on a scale of 1-7. Students' final Course Grade is based on their achievement on all assessments and their fieldwork research.

	SL	HL
Assessment Component	Weighting	
<b>External Assessment</b>		
<b>Paper 1:</b> Source based examination	40% (90 minutes/30 marks)	30% (120 minutes/40 marks)
<b>Paper 2:</b> Structured questions/essay	40% (90 minutes/30 marks)	45% (150 minutes/45 marks)
<b>Internal Assessment</b>		
<b>Fieldwork Investigation</b>	20%	25%
This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.	Three compulsory activities engaging in anthropological practice.	Three compulsory activities engaging in anthropological practice.
	1. Fieldwork proposal form	1. Fieldwork proposal form
	2. Critical reflection	2. Critical reflection
	3. Research report and reflection	3. Research report and reflection

- ⋄ Develop an ability to analyse, evaluate and synthesise scientific information
- ⋄ Engender an awareness of the need for, and the value of, effective collaboration and communication during scientific activities
- ⋄ Develop experimental and investigative scientific skills.
- ⋄ Develop and apply the students' information and communication technology skills in the study of science
- ⋄ Raise awareness of the moral, ethical, social, economic and environmental implications of using science and technology
- ⋄ Develop an appreciation of the possibilities and limitations associated with science and scientists
- ⋄ Encourage an understanding of the relationships between scientific disciplines and the overarching nature of the scientific method

## Group 4: Experimental Sciences

### Group 4: Sciences

#### Overview of the Biology, Chemistry, Physics and Sports, Exercise and Health Science

##### Aims

Through studying any of the Sciences, students should become aware of how scientists work and communicate with each other. While the 'scientific method' may take on a wide variety of forms, it is the emphasis on a practical approach through experimental work that distinguishes the Sciences from other disciplines and characterises each of the subjects within the Sciences.

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

- ⋄ Provide opportunities for scientific study and creativity within a global context that will stimulate and challenge students
- ⋄ Provide a body of knowledge, methods and techniques that characterise science and technology
- ⋄ Enable students to apply and use a body of knowledge, methods and techniques that characterise science and technology

##### CONTACT

##### Faculty Leader of Experimental Sciences and Biology Teacher

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paintings to the modern wildlife documentary, this interest is as obvious as it is ubiquitous, as biology continues to fascinate young and old all over the world.

The word “biology” was coined by German naturalist Gottfried Reinhold in 1802 but our understanding of living organisms only started to grow rapidly with the advent of techniques and technologies developed in the 18th and 19th centuries, not least the invention of the microscope and the realisation that natural selection is the process that has driven the evolution of life.

Biologists attempt to understand the living world at all levels using many different approaches and techniques. At one end of the scale is the cell, its molecular construction and complex metabolic reactions. At the other end of the scale biologists investigate the interactions that make whole ecosystems function. Many areas of research in biology are extremely challenging and many discoveries remain to be made. Biology is still a young science and great progress is expected in the 21st century. This progress is sorely needed at a time when the growing human population is placing ever greater pressure on food supplies and on the habitats of other species and is threatening the very planet we occupy.

## Biology SL and HL

*“To understand biology is to understand that all life is linked to the earth from which it came”*

- Rachel Carson

### Course Description

Biology is the study of life. The first organisms appeared on the planet over three billion years ago and, through reproduction and natural selection, have given rise to the eight million or so different species alive today. Estimates vary, but over the course of evolution four billion species could have been produced. Most of these flourished for a period of time and then became extinct as new, better adapted species took their place. There have been at least five periods when very large numbers of species became extinct and biologists are concerned that another mass extinction is under way, caused this time by human activity. Nonetheless, there are more species alive on Earth today than ever before. This diversity makes biology both an endless source of fascination and a considerable challenge.

An interest in life is natural for humans; not only are we living organisms ourselves, but we depend on many species for our survival, are threatened by some and co-exist with many more. From the earliest cave

### Curriculum Model Overview

- 1. Core** – 95 hours of instruction on six topics:
  - ^ **Core Topic 1:** Cell Biology
  - ^ **Core Topic 2:** Molecular Biology
  - ^ **Core Topic 3:** Genetics
  - ^ **Core Topic 4:** Ecology
  - ^ **Core Topic 5:** Evolution and biodiversity
  - ^ **Core Topic 6:** Human physiology
- 2. Additional higher level** – 60 hours of instruction on five topics:
  - ^ **Topic 7:** Nucleic Acids
  - ^ **Topic 8:** Metabolism, cell respiration and photosynthesis
  - ^ **Topic 9:** Plant Biology
  - ^ **Topic 10:** Genetics and evolution
  - ^ **Topic 11:** Animal physiology
- 3. Options:**
  - Standard Level:** 15 hours of instruction on one additional topic
  - Higher level:** 25 hours of instruction on one additional topic

**Chosen from:**

- ^ Neurobiology and behaviour
- ^ Biotechnology and bioinformatics
- ^ Ecology and conservation
- ^ Human physiology

**4. Practical work****Standard Level:** 40 hours**High Level:** 60 hours

- ^ Reinforces concepts, develops scientific skills and an appreciation of the benefits and limitations of scientific methodology
- ^ Group 4 project 10 hours

- o hypotheses, research questions and predictions
- o methodologies and techniques
- o primary and secondary data
- o scientific explanations

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

Students' level of achievement in the Biology course is measured by moderating their grades on both external and internal assessments.

**Assessment at a glance**

Students' final mark out of 7 is based on their achievement in three external examinations written at the end of their second year, and on one 10-hour individual scientific investigation, completed at the beginning of their second year.

**Assessment Model**

The IB assesses student work as direct evidence of achievement against the stated goals of the Diploma Programme courses, which are to provide students with:

- ^ A broad and balanced, yet academically demanding, program of study
- ^ The development of critical-thinking and reflective skills
- ^ The development of research skills
- ^ The development of independent learning skills
- ^ The development of intercultural understanding
- ^ A globally recognised university entrance qualification

The assessments aim to test all students' knowledge and understanding of key concepts through the overarching theme of the nature of science. The objectives assessed include:

- ^ demonstrating knowledge, understanding and application of:
  - o facts, concepts and terminology
  - o methodologies and techniques
  - o communicating scientific information
- ^ Formulating, analysing and evaluating:

	SL	HL
Assessment Component	Weighting	
<b>External Assessment</b>		
<b>Paper 1:</b> Multiple choice	20% (45 minutes)	20% (60 minutes)
<b>Paper 2:</b> Structured questions/essay	40% (75minutes)	36% (135 minutes/45 marks)
<b>Paper 3:</b> Structured questions/essay	20% (60 minutes)	24% (75 minutes)
<b>Internal Assessment</b>		
<b>Individual investigation</b>	20% A scientific report (6-12 pages) for a biological investigation that has been individually designed and conducted.	20% A scientific report (6-12 pages) for a biological investigation that has been individually designed and conducted.

**Chemistry SL and HL**

*“If you go very deep, you will see that you are not in a state of freedom but rather you are in a cage made by chemistry and science.”*

- Deyth Banger

**Course Description**

Chemistry is an experimental science that combines academic study with the acquisition of practical and

investigational skills. It is often called the central science, as chemical principles underpin both the physical environment in which we live and all biological systems. Apart from being a subject worthy of study in its own right, Chemistry is a prerequisite for many other courses in higher education, such as medicine, biological science and environmental science, and serves as useful preparation for employment.

Earth, water, air and fire are often said to be the four classical elements. They have connections with Hinduism and Buddhism. The Greek philosopher Plato was the first to call these entities elements. The study of chemistry has changed dramatically from its origins in the early days of alchemists, who had as their quest the transmutation of common metals into gold. Although today alchemists are not regarded as being true scientists, modern chemistry has the study of alchemy as its roots. Alchemists were among the first to develop strict experimentation processes and laboratory techniques. Robert Boyle, often credited with being the father of modern chemistry, began experimenting as an alchemist.

Despite the exciting and extraordinary development of ideas throughout the history of chemistry, certain things have remained unchanged. Observations remain essential at the very core of chemistry, and this sometimes requires decisions about what to look for. The scientific processes carried out by the most eminent scientists in the past are the same ones followed by working chemists today and, crucially, are also accessible to students in schools. The body of scientific knowledge has grown in size and complexity, and the tools and skills of theoretical and experimental chemistry have become so specialised, that it is difficult (if not impossible) to be highly proficient in both areas. While students should be aware of this, they should also know that the free and rapid interplay of theoretical ideas and experimental results in the public scientific literature maintains the crucial link between these fields.

The Diploma Programme Chemistry course includes the essential principles of the subject but also, through selection of an option, allows teachers some flexibility to tailor the course to meet the needs of their students. The course is available at both Standard Level (SL) and Higher Level (HL), and therefore accommodates students who wish to study chemistry as their major subject in higher education and those who do not.

At the school level both theory and experiments should be undertaken by all students. They should complement one another naturally, as they do in the wider scientific community. The Diploma Programme Chemistry course allows students to develop traditional practical skills and techniques and to increase facility in the use of mathematics, which is the language of science. It also allows students to develop interpersonal skills, and digital technology skills, which are essential in 21st century scientific endeavour and are important life-enhancing, transferable skills in their own right.

## Curriculum Model Overview

### 1. **Core** – 95 hours of instruction on eleven topics:

- ^ **Core Topic 1:** Stoichiometric relationship
- ^ **Core Topic 2:** Atomic structure
- ^ **Core Topic 3:** Periodicity
- ^ **Core Topic 4:** Chemical bonding and structure
- ^ **Core Topic 5:** Energetic/thermochemistry
- ^ **Core Topic 6:** Chemical kinetics
- ^ **Core Topic 7:** Equilibrium
- ^ **Core Topic 8:** Acids and bases
- ^ **Core Topic 9:** Redox processes
- ^ **Core Topic 10:** Organic chemistry
- ^ **Core Topic 11:** Measurement and data processing

### 2. **Additional higher level** – 60 hours of instruction on ten topics:

- ^ **Topic 12:** Atomic structure
- ^ **Topic 13:** The periodic table – the transition metals
- ^ **Topic 14:** Chemical bonding and structure
- ^ **Topic 15:** Energetics/thermochemistry
- ^ **Topic 16:** Chemical kinetics
- ^ **Topic 17:** Equilibrium
- ^ **Topic 18:** Acids and bases
- ^ **Topic 19:** Redox processes
- ^ **Topic 20:** Organic Chemistry
- ^ **Topic 21:** Measurement and analysis

### 3. **Options:**

**Standard Level:** 15 hours of instruction on one additional topic

**Higher level:** 25 hours of instruction on one additional topic

**Chosen from:**

- ^ Materials
- ^ Biochemistry
- ^ Energy
- ^ Medicinal chemistry

**4. Practical work**

**Standard Level:** 40 hours

**High Level:** 60 hours

- ^ Reinforces concepts, develops scientific skills and an appreciation of the benefits and limitations of scientific methodology
- ^ Group 4 project: 10 hours

Physics is the most fundamental of the experimental sciences, as it seeks to explain the universe itself from the very smallest particles—currently accepted as quarks, which may be truly fundamental—to the vast distances between galaxies.

Alongside the growth in our understanding of the natural world, perhaps the more obvious and relevant result of physics to most of our students is our ability to change the world. This is the technological side of physics, in which physical principles have been applied to construct and alter the material world to suit our needs and have had a profound influence on the daily lives of all human beings. 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. These concerns have become more prominent as our power over the environment has grown, particularly among young people, for whom the importance of the responsibility of physicists for their own actions is self-evident.

Physics is therefore, above all, a human activity, and students need to be aware of the context in which physicists work. Illuminating its historical development places, the knowledge and the process of physics in a context of dynamic change, in contrast to the static context in which physics has sometimes been presented. This can give students insights into the human side of physics: the individuals; their personalities, times and social milieux; their challenges, disappointments and triumphs.

The Diploma Programme Physics course includes the essential principles of the subject but also, through selection of an option, allows teachers some flexibility to tailor the course to meet the needs of their students. The course is available at both SL and HL, and therefore accommodates students who wish to study physics as their major subject in higher education and those who do not.

At the school level both theory and experiments should be undertaken by all students. They should complement one another naturally, as they do in the wider scientific community. The Diploma Programme Physics course allows students to develop traditional practical skills and techniques and increase their abilities in the use of mathematics, which is the language of physics. It also allows students to develop interpersonal and digital communication skills which are essential in modern scientific endeavour and are

**Assessment at a glance**

Students’ final mark out of 7 is based on their achievement in three external examinations written at the end of their second year, and on one 10-hour individual scientific investigation, completed at the beginning of their second year.

Assessment Component	SL and HL Weighting	
	<b>External Assessment</b>	
<b>Paper 1:</b> Multiple choice	20%	
<b>Paper 2:</b> Structured questions/essay	40%	
<b>Paper 3:</b> Structured questions/essay	20%	
<b>Internal Assessment</b>		
<b>Individual investigation</b>	20%	20%

**Physics SL and HL**

*“The knowledge of the soul is knowledge of the universe.”*  
- Alexis Karpouzou

**Course Description**

important life-enhancing, transferable skills in their own right.

## Curriculum Model Overview

1. **Core** – 95 hours of instruction on eight topics:
  - ∧ **Core Topic 1:** Measurements and uncertainties
  - ∧ **Core Topic 2:** Mechanics
  - ∧ **Core Topic 3:** Thermal Physics
  - ∧ **Core Topic 4:** Waves
  - ∧ **Core Topic 5:** Electricity and magnetism
  - ∧ **Core Topic 6:** Circular motion and gravitation
  - ∧ **Core Topic 7:** atomic, nuclear and particle physics
  - ∧ **Core Topic 8:** Energy production
2. **Additional higher level** – 60 hours of instruction on four topics:
  - ∧ **Topic 9:** Wave phenomena
  - ∧ **Topic 10:** Fields
  - ∧ **Topic 11:** Electromagnetic induction
  - ∧ **Topic 12:** Quantum and nuclear physics
3. **Options:**

**Standard Level:** 15 hours of instruction on one additional topic

**Higher level:** 25 hours of instruction on one additional topic

**Chosen from:**

  - ∧ Relativity
  - ∧ Engineering physics
  - ∧ Imaging
  - ∧ Astrophysics
4. **Practical work**

**Standard Level:** 40 hours

**High Level:** 60 hours

  - ∧ Reinforces concepts, develops scientific skills and an appreciation of the benefits and limitations of scientific methodology
  - ∧ Group 4 project: 10 hours

## Assessment at a glance

Students' final mark out of 7 is based on their achievement in three external examinations written at the end of their second year, and on one 10-hour individual scientific investigation, completed at the beginning of their second year.

	SL and HL	
Assessment Component	Weighting	
<b>External Assessment</b>		
<b>Paper 1:</b> Multiple choice	20%	
<b>Paper 2:</b> Structured questions/essay	40%	
<b>Paper 3:</b> Structured questions/essay	20%	
<b>Internal Assessment</b>		
<b>Individual investigation</b>	20%	20%

## Sports, Exercise and Health Science SL and HL

*“It is a shame for a man to grow old without seeing the beauty and strength of which his body is capable.”*

- Socrates

### Course Description

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.

The SEHS course, available at both standard level (SL) and higher level (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 the selection of two options, it allows teachers some flexibility to tailor the SEHS course to meet the needs of their students.

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.

### Curriculum Model Overview

**1. Core** – 80 hours of instruction on six topics:

- ^ **Core Topic 1:** Anatomy
- ^ **Core Topic 2:** Exercise physiology
- ^ **Core Topic 3:** Energy systems
- ^ **Core Topic 4:** Movement and analysis
- ^ **Core Topic 5:** Skill in sports
- ^ **Core Topic 6:** Measurement and evaluation of human performance

**2. Additional higher level** – 60 hours of instruction on seven topics:

- ^ **Topic 7:** Further anatomy
- ^ **Topic 8:** The endocrine system
- ^ **Topic 9:** Fatigue
- ^ **Topic 10:** Friction and drag
- ^ **Topic 11:** Skill acquisition and analysis
- ^ **Topic 12:** Genetics and athletic performance
- ^ **Topic 13:** Exercise and immunity

**3. Options:**

**Standard Level:** 30 hours of instruction on one additional topic

**Higher level:** 50 hours of instruction on one additional topic

**Chosen from:**

- ^ Optimising physiological performance
- ^ Psychology of sports
- ^ Physical activity and health
- ^ Nutrition for sports, exercise and health

**4. Practical work**

**Standard Level:** 40 hours

**High Level:** 60 hours

- ^ Reinforces concepts, develops scientific skills and an appreciation of the benefits and limitations of scientific methodology
- ^ Group 4 project: 10 hours

the end of their second year, and on one 10-hour individual scientific investigation, completed at the beginning of their second year.

	SL and HL	
Assessment Component	Weighting	
<b>External Assessment</b>		
<b>Paper 1:</b> Multiple choice	20%	
<b>Paper 2:</b> Structured questions/essay	40%	
<b>Paper 3:</b> Structured questions/essay	20%	
<b>Internal Assessment</b>		
<b>Individual investigation</b>	20%	20%

### Assessment at a glance

Students' final mark out of 7 is based on their achievement in three external examinations written at

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.

# Interdisciplinary Subject

## **Interdisciplinary Subject Group 3 and 4: Individuals and Society or Sciences**

### **Environmental Systems and Societies SL**

*“The environment is where we all meet; where we all have a mutual interest; it is the one thing all of us share.”*

-Lady Bird Johnson

### **Course Description**

Environmental systems and societies (ESS) is an interdisciplinary course offered only at standard level (SL). This course can fulfil 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 recognise and evaluate the impact of our complex system of societies on the natural world.

### **CONTACT**

#### **Environmental, Systems and Societies Teacher**

Ms Alaa Salameh

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### **Aims**

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.

Students' final mark out of 7 is based on their achievement in three external examinations written at the end of their second year, and on one 10-hour individual scientific investigation, completed at the beginning of their second year.

SL	
Assessment Component	Weighting
<b>External Assessment</b>	
<b>Paper 1:</b> Case study	25%
<b>Paper 2:</b> short answers and structured essays	50%
<b>Internal Assessment</b>	
<b>Individual investigation</b>	25%
Written report of a research question designed and implemented by the student.	

## Curriculum Model Overview

**1. Core** – 120 hours of instruction on eight topics:

- ^ **Core Topic 1:** Foundations of environmental systems and societies
- ^ **Core Topic 2:** Ecosystems and ecology
- ^ **Core Topic 3:** Biodiversity and conservation
- ^ **Core Topic 4:** Water and aquatic food production systems and societies
- ^ **Core Topic 5:** Soil systems and terrestrial food production systems and societies
- ^ **Core Topic 6:** Atmospheric systems and societies
- ^ **Core Topic 7:** Climate change and energy production
- ^ **Core Topic 8:** Human systems and resource use

**2. Practical work**

**Standard Level:** 30 hours practical scheme of work

- ^ Reinforces concepts, develops scientific skills and an appreciation of the benefits and limitations of scientific methodology

## Assessment at a glance

## Mathematics: Applications and Interpretations SL

### Course Description

*Most similar to the Mathematical Studies SL course.*

This course recognises 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 also includes topics that are traditionally part of a pre-university mathematics course such as calculus and statistics.

It is suitable for students who have studied the NESA Mathematics 5.3 course. The course is designed for students who do not anticipate a need for Mathematics SL and understanding of mathematical competence in

## Group 5: Mathematics

### Group 5: Mathematics

*“Without mathematics, there’s nothing you can do. Everything around you is mathematics. Everything around you is numbers.”*  
- Shakuntala Devi

### Mathematics: Analysis and Approaches SL

#### Course Description

*Most similar to the Mathematics SL course.*

This course recognises the need for analytical expertise in a world where innovation is increasingly dependent on a deep understanding of mathematics. This course includes topics that are both traditionally part of a pre-university mathematics course (for example, functions, trigonometry, calculus) as well as topics that are amenable to investigation, conjecture and proof, for instance the study of sequences and series at both SL and HL, and proof by induction at HL.

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### Mathematics: Analysis and Approaches SL

- ^ Number and Algebra (Arithmetic and Geometric series, Exponential and Logarithms, Binomial theorem)
- ^ Functions (Inverse and composite functions, quadratics, discriminant, transformations)
- ^ Geometry and trigonometry (3D coordinate geometry, sine and cosine rules, non-right angles trig, circle geometry, exact values, circular functions)
- ^ Statistics and Probability (Central tendency and spread, bivariate data, probability, expected value of a discrete random variable, Binomial and normal distribution)
- ^ Calculus (Limits, increasing and decreasing functions, Derivative of  $x^n$ ,  $\ln x$ ,  $e^x$  and trig functions, chain, product, quotient rules, definite integrals, area under a curve, optimisation and kinematics problems.)

### Mathematics: Applications and Interpretations SL

- ^ **Number and algebra** (Arithmetic and geometric series, financial application, index laws and base 10 logs, amortization and annuities using technology, using technology to solve equations)
- ^ **Functions** (inverse functions, using technology to graph sums and differences, modelling with linear, quadratic, exponential, inverse variation, cubic and sinusoidal, develop and fit models).
- ^ **Geometry and trigonometry** (3D coordinate geometry, volume/SA, trigonometric ratios, sin and cosine rule, non-right angled trig, arc length and area of sector, Voronoi diagrams)
- ^ **Statistics and probability** (Simple and grouped data, central tendency and spread, bivariate data, probability, expected value of discrete random variable, binomial and normal distribution, Spearman's rank correlation, chi-squared tests for independence and fit, t-test)
- ^ **Calculus** (Limits from a table/graph, increasing and decreasing functions, tangents and normal, derivative of  $x^n$ , anti-differentiation and integration, optimisation and trapezoidal rule).

### Assessment at a glance

External Assessment 80% for SL	Internal Assessment: 20%
Paper 1 (90 minutes) 40%	<b>Mathematical exploration</b> (20%) Internal assessment in mathematics is an individual exploration. This is a piece of written work (12-20 pages) that involves investigating an area of mathematics.
Paper 2: Extended response questions (90 minutes): 40%	

Students will be formatively and summatively assessed, using the College's Approaches to Learning rubric, the course rubrics, and – on report cards – using the DP Group 5 grade descriptors on a scale of 1-7. Students' final Course Grade is based on their achievement on all assessments and their mathematical exploration.

### Mathematics: Analysis and Approaches SL

External Assessment 80%	Internal Assessment: 20%
Paper 1 (non-calculator) (90 minutes): 40%	<b>Mathematical exploration</b> (20%): Internal assessment in mathematics is an individual exploration. This is a piece of written work (12-20 pages) that involves investigating an area of mathematics.
Paper 2 (90 minutes): 40%	

### Mathematics: Applications and Interpretations SL

changing, and connect many areas of knowledge and human experience through individual and collaborative exploration, creative production and critical interpretation

Key features of the assessment model:

- ^ Available at Standard Level (SL) and Higher Level (HL)
- ^ Students are assessed both externally and internally

## Group 6: Arts

### Group 6: Visual Arts

#### Visual Arts SL and HL

*"The object of art is not to reproduce reality, but to create a reality of the same intensity."*

- Alberto Giacometti

#### Course Description

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 seeking lifelong enrichment through Visual Arts.

Students explore a wide range of art practices from traditional to varied and divergent practices associated with new emerging forms of visual language. They may have socio-political impact as well as ritual, spiritual, decorative and functional value. Theories and practices in visual arts are dynamic and ever-

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At both Standard Level and Higher-Level students complete the following assessment tasks:

#### Comparative Study = 20%

Students analyse and compare different artworks by different artists. This independent critical and contextual investigation explores artworks, objects and artefacts from differing cultural contexts.

#### Process Portfolio = 40%

Students submit carefully selected materials which evidence their experimentation, exploration, manipulation, and refinement of a variety of visual arts activities during the two-year course.

#### Exhibition = 40%

Students submit for assessment a selection of resolved artworks from their body of work accompanied by

curatorial statements. The selected pieces should show evidence of their technical accomplishment during the Visual Arts course and an understanding of the use of materials, ideas and practices appropriate to visual communication.

### Assessment Details for Visual Arts

Assessment Component	Weighting
<b>External Assessment (3 hours)</b>	<b>60%</b>
<b>Part one: Comparative study</b>	20%
<p>Students analyse and compare different artworks by different artists. This independent critical and contextual investigation explores artworks, objects and artefacts from differing cultural contexts.</p> <ul style="list-style-type: none"> <li>^ Students submit 10-15 screens, which examine and compare at least three artworks, at least two of which need to be by different artists. The works selected for comparison and analysis should come from contrasting contexts (local, national, international and/or intercultural)</li> <li>^ Students submit 3-5 screens which analyse the extent to which their work practices have been influenced by the art and artists examined</li> <li>^ Students submit a list of sources used</li> </ul>	
<b>Part two: Process portfolio</b>	40%
<p>Students submit carefully selected materials, which evidence their experimentations, exploration, manipulation and refinement of a variety of visual arts activities during the two-year course.</p> <ul style="list-style-type: none"> <li>^ Students submit 13-25 screens which evidence their sustained experimentation, exploration, manipulation and refinement of a variety of art-making activities</li> <li>^ The submitted work must have been created in at least three art-making forms, selected from a minimum of two columns of the art-making forms table.</li> </ul>	

Assessment Component	Weighting
<b>Internal Assessment</b>	<b>40%</b>
<b>Part three: Exhibition</b>	40%
<p>Students submit for assessment a selection of resolved artworks from their exhibition. The selected pieces should show evidence of their technical accomplishment during the visual arts course and an understanding of the use of materials, ideas and practices appropriate to visual communication.</p> <ul style="list-style-type: none"> <li>^ Students submit a curatorial rationale that does not exceed 700 words</li> <li>^ Students submit 8-11 artworks</li> <li>^ Students submit exhibition text (stating the title, medium, size and intention) for each selected artwork</li> </ul> <p>Students may submit two photographs of their overall exhibition. These exhibition photographs provide an understanding of the context of the exhibition and the size and scope of the works. While the photographs will not be used to assess individual artworks, they may give the moderator insight into how a candidate has considered the overall experience of the viewer in their exhibition.</p>	

- ✧ informing the School Principal and Diploma Programme Coordinator;
- ^ informing the parents or legal guardians;
- ^ a meeting between the teacher and student; and
- ^ no credit for the work. **This could mean that a student may not be eligible to receiving their Diploma.**
- ^ The student will need to take ownership of their malpractice.

# Academic Honesty

## Academic Honesty at Al Zahra College

Academic honesty is cultivated when we are engaged in independent thought and self-expression that draws on creativity. It is a key component of Approaches to Learning at Al Zahra College and our strategy for developing together as lifelong learners.

Al Zahra College endeavours to create a culture of honesty and integrity in our community, both academically and in how we develop as persons of character.

According to the IBO, an authentic piece of work is one that is based on *“individual and original ideas, with the ideas and work of others fully acknowledged.”*<sup>1</sup> Malpractice includes any activity that provides a student with an unfair advantage in assessment.

The IBO insists that malpractice *“must not be viewed as a trivial offence with only minor consequences. It must be viewed as a serious academic transgression with a community attitude that shows no tolerance and imposes severe penalties when it is discovered.”*<sup>1</sup>

At Al Zahra College, consequences are determined on a case-by-case basis. It is important that the student is educated, so they understand the nature of their malpractice and how to avoid it in future. Teachers that suspect malpractice will investigate the matter and gather evidence. They will inform the Diploma Programme Coordinator, Headmaster and the student’s parents of the infraction. Discipline can take different forms, but **minimally** it will include:

Ideally, students should learn from their mistake and be able to demonstrate an improved understanding of academic honesty. Students in the Diploma Programme must adhere to the Al Zahra College Academic Honesty Policy, as well as the standards and practices outlined in the IB document, *Diploma Programme: Academic Honesty, 2009*. This document provides more detailed information on academic honesty and consequences for malpractice for both internal and external assessment. The IB states that it *“randomly checks candidates’ work for plagiarism using a web-based plagiarism prevention service.”*<sup>1</sup> Additionally, examiners *“are adept at identifying text and material that is not the authentic work of the candidate.”*<sup>1</sup>

<sup>1</sup> *Diploma Programme: Academic Honesty, 2009.*

students run the risk of receiving lower marks than what was originally received.

**Do universities automatically accept DP students?** Australian, Canadian, British and American universities accept Diploma students almost universally; however, they do vary regarding ATAR scores.

**How many points do I need for university entrance?** This varies from place to place and program to program. In general, you will be considered for university admission if you earn the IB Diploma; 24 points will likely give you a choice of Australian universities; 30 points may bring generous

entrance scholarships to Australian universities, and 40 or more points will make you competitive for the best universities worldwide.

**How do I find out what the conversion is from an IB Score to an ATAR?**

Year by year, the conversion scores are slightly altered. Students will need to go to the following webpage to find the up to date IB Score to ATAR conversion table:

<https://www.uac.edu.au/future-applicants/admission-criteria/ib-applicants>

**Good Advice, From One IB Learner to Another**

Your best source of good advice is the class ahead of you. What would the 11s and 12s tell the 10s? Ask them – they are your natural allies in the programme.

Your teachers would probably say:

- ^ Have fun! The DP is supposed to be challenging, not back breaking.
- ^ Eat well. Get enough sleep and exercise. Spend time with friends and family: it's all about balance.
- ^ Ask questions and participate in your classes: your homework will be easier and faster if you do.
- ^ We'll help you. Remember – we're all in this

## Frequently Asked Questions

### Frequently Asked Questions

**Is the Diploma Programme for only international students?** Not necessarily. Although the DP was designed originally for international students and is widely offered in international schools, it is open to all. The Diploma Programme provides an international perspective in its curriculum and is internationally recognised by universities for admissions.

**Am I smart enough to do the Diploma Programme?** Our experience, and that of other IB schools around the world, is that attitude, effort, and organisation are the keys to success in the DP. Although the DP is academically challenging, you do not have to be brilliant to do well; you have to work hard, be organised, and stay positive.

**I having diagnosed learning differences – can I do the Diploma Programme?** Yes. If you have professionally diagnosed learning differences, IB may grant requests for extra time on final exams, use of a laptop, a scribe, and many other allowances. Talk to your Diploma Programme Coordinator to review your options.

**Can I take Diploma exams again to improve my scores?** Although it is not normally done, you can – with permission – retake any of your DP exams after graduation. However, permission to retake exams is given at the DP Coordinator's discretion. Moreover,

together. Talk to your teachers and to your DP

Coordinator!

- ^ Meet your deadlines. Don't wait until your Grade 12 year to really start working.
- ^ Divide holidays into work and play time. There will be a lot of work in your Grade 11 Summer holidays, but you finish Grade 12 in

Grade 12 year to really start working.

- ^ Remember that every artist, every scientist, every world leader, and every game changer was once a teenager.

## Checklist for Future DP Students

### Checklist

- Have you read the Curriculum Guide thoroughly?
- Did you attend the Information Evening?
- Have you read the Year 10 UAC “University Entry Requirements” to check information about assumed knowledge and recommended studies for all NSW Universities? (<https://www.uac.edu.au/assets/documents/year-10/year-10-booklet-2023.pdf>)
- Have you read about the new way UAC is improving entry requirements for IB DP students? (<https://www.uac.edu.au/future-applicants/admission-criteria/ib-applicants/improving-uni-entry-ib-students>)
- Have you read about how university applications are processed with an IB Diploma? (<https://www.uac.edu.au/future-applicants/admission-criteria/ib-applicants>)
- Do you have six subjects, with at least one from each of the mandatory groups?
- Have you chosen a minimum of three Higher Level subjects?
- Are these your strongest subjects?



# Notes

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