Grade: 11 Yearly Plan: IB-DP English Language and Literature A

http://www.ibo.org/programmes/diploma-programme/curriculum/language-and-literature/language-a-language-and-li

UNITS of STUDY	Content/ Aims/ Outcomes

Part 1: Language in cultural context	• Analyze how audience and purpose affect the structure and content of texts
	• Analyze the impact of language changes
	• Demonstrate an awareness of how language and meaning are shaped by culture and context
	• Looking specifically at:
	  ○ Language and gender
	  ○ Language and identity
	  ○ Language and taboo
	  ○ Evolution of language
	• Activities for Assessment:
	  ○ FOA
	  ○ Written Task 1
	  ○ Written Task 2 (HL Only)
	  ○ Paper 1

Part 3: Literature: Texts and contexts	• Consider the changing historical, cultural, and social contexts in which particular texts are written and received
	• Demonstrate how the formal elements of the text, genre, and structure can not only be seen to influence meaning but can also be influenced by context
	• Understand the attitudes and values expressed by literary texts and their impact on readers
	• Texts Studied
	  ○ *Handmaid's Tale by* Margaret Atwood
	  ○ *Collection of Poetry* by Carol Ann Duffy
	  ○ *Collection of Short Stories by* Edgar Allen Poe *or 1984* by George Orwell (HL only)
	• Activities for assessment:
	  ○ Paper 2

Course revision	• Revise content from parts 1, 2, and 3
	• Revise skills from all parts of the course
	• Practice exams
	  ○ Paper 1
	  ○ Paper 2

*Course will include instruction on reading comprehension, writing, research, and presentation skill development as part of regular course content.

Grade: 11-12 **Yearly Plan: IB Ab Initio Spanish**

*Units of Study are used to cover the IB language acquisition (Language B, Ab Initio) standards:
http://occ.ibo.org/ibis/occ/Utils/getFile2.cfm?source=/ibis/occ/home/subjectHome.cfm&filename=dp%2Fgr2%2Flanguage_ab_initio%2Fd_2_anlan_gui_1308_2_e%2Epdf

UNITS of STUDY	Content/ Aims/ Outcomes
I. Identity	• Countries and Nationalities • Give and ask for personal information • Introducing oneself • **Grammar:** articles, nouns, possessives, pronouns, present tense, verbs like llamarse, ser, y tener • **Cultura:** Chile
II. Relationships	• Talk about family and friends • Describe physical characteristics • Describe personalities • **Grammar:** noun-adjective agreement, negation, demonstrative, connectors • **Culture:** Ecuador
III. Habitat	• Describing cities and neighborhoods • Interpreting maps • Talk about the house • **Grammar:** Adverbs, the verbs hay and estar, using porque/para • **Culture:** Guatemala
IV. Competition	• Talk about sports • Expressing likes/dislikes • Talk about rules and competitions • **Grammar:** verbs gustar/encantar/preferir, tener que/poder, expressing obligation es importante/necesario/obligatorio • **Culture:** Costa Rica

Grade: 11-12 **Yearly Plan: IB Ab Initio Spanish**

V. Nutrition	• Talk about food and beverages • Describe eating habits • Requesting food at a restaurant • **Grammar:** verbs almorzar/merendar/desayunar/cenar, using the impersonal "se", direct object pronouns, the verb querer • **Culture:** España
VI. Entertainment	• Talk about plans • Requesting and receiving an invitation • Give opinions and express agreement/disagreement • **Grammar:** verbs to indicate preferences, desires querer/preferir/interesar/apetecer/parecer/tener ganas de/ ir, words to express future, probability (si + presente) • **Culture:** Cuba y la República Dominicana
VII. Weather	• Ask and talk about the weather • Analyze the weather and its influence • Compare places for tourism • **Grammar:** impersonal verbs llover/nevar/estar/hacer/haber, connectors, comparisons, voseo • **Culture:** Argentina
VIII. Traveling	• Discuss traveling and cultural habits • Asking for directions • Talk about traveling experiences • **Grammar:** verbs saber/conocer, irregular verbs in first person, past perfect, using por/porque/para • **Culture:** México
IX. Education	• Characteristics of a good student • Exchange opinions about educational systems • Talk about other ways to get educated • **Grammar:** words to express time, present progressive • **Culture:** Bolivia

Grade: 11-12 **Yearly Plan: IB Ab Initio Spanish**

X. Consumption	• Talk about clothing and fashion • To go shopping • Being a responsible consumer • **Grammar:** indirect objects, possessive pronouns, interrogative words • **Culture:** Colombia
XI. Work	• Talk about aptitudes and abilities needed for a job • Developing as a professional • Discuss the work day • **Grammar:** verb soler, past tense for regular/irregular verbs, words to indicate past (ayer, el año pasado, anoche) • **Culture:** Paraguay
XII. Health	• Parts of the body • Talk about health issues and give advice • Alternative medicine (natural) • **Grammar:** verbs doler, tener, estar, connectors, using tú and usted • **Culture:** Nicaragua
XIII. Communication	• Discussing written news • Learn how to interview • Communication in social sites • **Grammar:** past perfect and past tense, using exclamations • **Culture:** Puerto Rico
XIV. Environment	• Analyze consequences of global warming • Discuss natural resources • Talk about environmental education and campaigns • **Grammar:** words to indicate cause and finality (porque, a causa de, sino, sin embargo, etc.), nouns that end in -ción, -o, y -miento, expressing agreement/certainty • **Culture:** Venezuela

Grade: 11-12 **Yearly Plan: IB Ab Initio Spanish**

XV. Immigration	• Discover the origins of Spanish • Contrast how life was before and now • Remember past eras • **Grammar:** imperfect tense, using present tense to talk about historical events • **Culture:** Uruguay
XVII. Art	• Describing art work • Analyzing literary texts • Discuss musical interests and personalities • **Grammar:** using past participle and expressions like se prohíbe, no se permite, está permitido, contrast between preterite tense and imperfect • **Culture:** Honduras y El Salvador
XVIII. Technology	• Talk about past inventions • Give advice and instructions • Make petitions/responses • **Grammar:** Review all forms of preterite tenses, imperatives, pronouns with imperatives • **Culture:** Panamá
XIX. Exam preparation	• Practice Paper 1s and Paper 2s • Individual oral component • Trabajo escrito (individual)

*Course will include instruction on reading comprehension, writing, research and presentation skill development as part of regular course content.

Grade: 11 Yearly Plan: IB HL Math

Units of Study are used to cover the IBDP Standard level Mathematics for Grade 11 math
http://www.ibo.org/en/programmes/diplomes/diploma-pi

Prepared by Miss Sandria Wilson

UNITS OF STUDY	KEY Content/ Aims/ Outcomes
1.1 Algebra	❖ Arithmetic sequences & series ❖ Sum of infinite arithmetic series ❖ Geometric sequences and series ❖ Sum of finite and infinite geometric series ❖ Sigma notation ❖ Applications
1.2 - 1.7 Algebra	❖ Exponents and logarithms ❖ Laws of exponents ❖ Laws of logarithms ❖ Change base ❖ Counting Principles – permutations and combinations ❖ Binomial theorem ❖ Proof by mathematical Induction ❖ Complex numbers ❖ De Moivre's theorems ❖ Modulus – argument (polar) form
1.8 – 1.9 Algebra	❖ Conjugate roots of polynomial equations with real coefficients ❖ Inequalities ❖ Polynomials ❖ Factor and zero theorem
	❖ Systems of linear equations (a maximum of three equations in three unknowns)– unique solution, an infinity solutions or no

	solution ❖ Conjugate roots of polynomials with real coefficients
2.1 Functions & Equations	❖ Concepts of function – domain & range ❖ Odd & even function ❖ Composite functions ❖ Identity function ❖ One – to – one and many – to one – functions ❖ Inverse functions (domain restriction & self-inverse)
2.2 – 2.4 Functions & equations	❖ Graph of a function – maximum & minimum values , intercepts , horizontal and vertical asymptotes , symmetry ❖ Absolute functions ❖ Transformations of graphs – translations , stretches , reflection in the axes ❖ The graph of the inverse function as a reflection in y = x ❖ Rational function and its graph ❖ Exponential function and its graph ❖ Logarithmic function and its graph
2.5 – 2.7 Functions & equations	❖ Polynomial functions and their graphs ❖ The factor and remainder theorems ❖ The fundamental theorem of algebra ❖ Solving quadratic equations using quadratic formula ❖ Use of the discriminant ❖ Solving polynomials equations – graphically & algebraically ❖ Sum and product of the roots of polynomial equations ❖ Use of technology to solve equations ❖ Logarithmic & exponential equations ❖ Solutions of inequalities equations – graphically or algebraically up to degree 3

3.1 – 3.7 Circular functions and trigonometry	❖ The circle – radian measure of angles ❖ Length of arc ❖ Area of sector ❖ Trigonometric ratios ❖ Reciprocal trigonometric ❖ Pythagorean identities ❖ Compound angles ❖ Doubles angles ❖ Addition and subtraction formulas ❖ Multiple-angle identities ❖ The circular functions sin x, cos x, and tan x: their domains and ranges; amplitude, their periodic nature; and their graphs. ❖ Composite functions of the form f (x) = a sin(b(x + c)) + d. ❖ Transformations. Applications. ❖ Solving trigonometric equations in a finite interval, both graphically and analytically. Equations leading to quadratic equations in sin x, cos x, or tan x. ❖ Inverse trigonometric functions – domain , range and their graphs ❖ Algebraic and graphical methods of solving trigonometric equations in a finite interval (Use of trigonometric identities and factorization ❖ Cosine rule ❖ Sine rule including ambiguous case ❖ Area of triangle given two sides and the included angle ❖ Applications. Examples include navigation, problems in two and three dimensions, including angles of elevation and depression.
Vectors	❖ Vectors as displacements in the plane and three dimensions. ❖ Components of a vector and column representation. ❖ Algebraic and geometric approaches: sums and differences, multiplication by a scalar, parallel and perpendicular vectors, parallel vectors, magnitude, unit vectors, position vectors.

	❖ Scalar product (dot products) of two vectors. ❖ The angle between two: vectors, lines. ❖ Vector equation of a line in 2 and 3 dimensions; r = a + tb. Interpretation of t as time and b as velocity , with 1 *b* 1 representing speed ❖ Coincident and parallel lines. ❖ Finding where or determining if two lines intersect ❖ Vector in plane and space ❖ Geometric applications to planar and special lines and to planes in 3 dimensional space

Please note: Topics will not necessarily be covered in order given and might be subject to change. Depth of topics being dealt with depends on assessment of existing level of knowledge and skills.
Course will include instruction on reading comprehension, writing, and research and presentation skill development as part of regular course content.

Grade: 11 Yearly Plan: IB Biology

From IB Biology guide first assessment 2016 http://www.ibo.org/programmes/diploma-programme/curriculum/sciences/biology/

UNITS of STUDY	Content/ Aims/ Outcomes
1. Cell biology SL	1.1 Introduction to cells 1.2 Ultrastructure of cells 1.3 Membrane structure 1.4 Membrane transport 1.5 The origin of cells 1.6 Cell division
2. Molecular biology SL	2.1 Molecules to metabolism 2.2 Water 2.3 Carbohydrates and lipids 2.4 Proteins 2.5 Enzymes 2.6 Structure of DNA and RNA 2.7 DNA replication, transcription and translation 2.8 Cell respiration 2.9 Photosynthesis
7. Nucleic acids AHL	7.1 DNA structure and replication 7.2 Transcription and gene expression 7.3 Translation
8. Metabolism, cell respiration and photosynthesis AHL	8.1 Metabolism 8.2 Cell respiration 8.3 Photosynthesis
3. Genetics SL	3.1 Genes 3.2 Chromosomes 3.3 Meiosis 3.4 Inheritance 3.5 Genetic modification and biotechnology

Grade: 11 Yearly Plan: IB Biology

10. Genetics and evolution AHL	10.1 Meiosis 10.2 Inheritance 10.3 Gene pools and speciation
4. Ecology SL	4.1 Species, communities and ecosystems 4.2 Energy flow 4.3 Carbon cycling 4.4 Climate change

Grade: 11 Yearly Plan: IB Chemistry

*Units of Study are used to cover the IBDP Chemistry syllabus. The full syllabus can be found here.
https://ibpublishing.ibo.org/server2/rest/app/tsm.xql?doc=d_4_chemi_gui_1402_1_e&part=1&chapter=1

UNITS of STUDY	Content/ Aims/ Outcomes
Topic 1: Stoichiometric relationships	1.1 Introduction to the particulate nature of matter and chemical change 1.2 The mole concept 1.3 Reacting masses and volumes
Topic 2 and 12: Atomic structure	2.1 The nuclear atom 2.2 Electron configuration 12.1 Electrons in atoms
Topic 3 and 13: Periodicity and the transition metals	3.1 Periodic table 3.2 Periodic trends 13.1 First-row d-block elements 13.2 Coloured complexes
Topic 4 and 14: Chemical bonding and structure	4.1 Ionic bonding and structure 4.2 Covalent bonding 4.3 Covalent structures 4.4 Intermolecular forces 4.5 Metallic bonding 14.1 Covalent bonding and electron domain and molecular geometries 14.2 Hybridization

Grade: 11 Yearly Plan: IB Chemistry

Topic 5 and 15: Energetics/thermochemistry	5.1 Measuring energy changes 5.2 Hess's Law 5.3 Bond enthalpies 15.1 Energy cycles 15.2 Entropy and spontaneity
Topic 6 and 16: Chemical kinetics	6.1 Collision theory and rates of reaction 16.1 Rate expression and reaction mechanism 16.2 Activation energy
Topic 11: Measurement and data processing	11.1 Uncertainties and errors in measurement and results 11.2 Graphical techniques 11.3 Spectroscopic identification of organic compounds

Grade: 11 Yearly Plan: IB Physics

*Units of study are aligned to the aims and objectives of the IBDP Physics course, adapted to the needs of the students. The syllabus is available here: https://ibpublishing.ibo.org/server2/rest/app/tsm.xql?doc=d_4_physi_gui_1402_1_e&part=1&chapter=1&IBVal=DI6XUZ0CXI3KGMH4CRX9&CFID=670763&CFTOKEN=90612405&jsessionid=bc3097690537e596f1832958765663e72103

UNITS of STUDY	Content/ Aims/ Outcomes
MEASUREMENTS AND UNCERTAINTIES.	• Fundamental and derived SI units • Scientific notation and metric multipliers • Significant figures • Orders of magnitude • Estimation • Random and systematic errors • Absolute, fractional and percentage uncertainties • Error bars • Uncertainty of gradient and intercepts • Vector and scalar quantities • Combination and resolution of vectors

Grade: 11 Yearly Plan: IB Physics

MECHANICS	• Distance and displacement • Speed and velocity • Acceleration • Graphs describing motion • Equations of motion for uniform acceleration • Projectile motion • Fluid resistance and terminal speed • Objects as point particles • Free-body diagrams • Translational equilibrium • Newton's laws of motion • Solid friction • Kinetic energy • Gravitational potential energy • Elastic potential energy • Work done as energy transfer • Power as rate of energy transfer • Principle of conservation of energy • Efficiency • Newton's second law expressed in terms of rate of change of momentum • Impulse and force–time graphs • Conservation of linear momentum • Elastic collisions, inelastic collisions and explosions

Grade: 11 Yearly Plan: IB Physics

CIRCULAR MOTION AND GRAVITATION	• Period, frequency, angular displacement and angular velocity • Centripetal force • Centripetal acceleration • Newton's law of gravitation • Gravitational field strength
ELECTRICITY AND MAGNETISM	• Charge • Electric field • Coulomb's law • Electric current • Direct current (dc) • Potential difference • Circuit diagrams • Kirchhoff's circuit laws • Heating effect of current and its consequences • Resistance expressed as R = V/I • Ohm's law • Resistivity • Power dissipation • Cells • Internal resistance • Secondary cells • Terminal potential difference • Electromotive force (emf) • Magnetic fields • Magnetic force

Grade: 11 Yearly Plan: IB Physics

THERMAL PHYSICS	• Molecular theory of solids, liquids and gases • Temperature and absolute temperature • Internal energy • Specific heat capacity • Phase change • Specific latent heat • Pressure • Equation of state for an ideal gas • Kinetic model of an ideal gas • Mole, molar mass and the Avogadro constant • Differences between real and ideal gases

Grade: 11 Yearly Plan: IB Physics

WAVES	• Simple harmonic oscillations • Time period, frequency, amplitude, displacement and phase difference • Conditions for simple harmonic motion • Travelling waves • Wavelength, frequency, period and wave speed • Transverse and longitudinal waves • The nature of electromagnetic waves • The nature of sound waves • Wavefronts and rays • Amplitude and intensity • Superposition • Polarization • Reflection and refraction • Snell's law, critical angle and total internal reflection • Diffraction through a single-slit and around objects • Interference patterns • Double-slit interference • Path difference • The nature of standing waves • Boundary conditions • Nodes and antinodes

Grade: 11 Yearly Plan: IB Physics

WAVE PHENOMENA for HL	• The defining equation of SHM • Energy changes • The nature of single-slit diffraction • Young's double-slit experiment • Modulation of two-slit interference pattern by one-slit diffraction effect • Multiple slit and diffraction grating interference patterns • Thin film interference • The size of a diffracting aperture • The resolution of simple monochromatic two-source systems • The Doppler effect for sound waves and light waves
FIELDS for HL	• Gravitational fields • Electrostatic fields • Electric potential and gravitational potential • Field lines • Equipotential surfaces • Potential and potential energy • Potential gradient • Potential difference • Escape speed • Orbital motion, orbital speed and orbital energy • Forces and inverse-square law behaviour

Grade: 11th Yearly Plan: Psychology

http://www.ibo.org/en/programmes/diploma-programme/curriculum/individuals-and-societies/psychology/

UNITS of STUDY	KEY Content/ Aims/ Outcomes
I. Biological level of analysis	• Explain how principles that define the biological level of analysis may be demonstrated in research. • Discuss how and why particular research methods are used at the biological level of analysis. • Discuss ethical considerations related to research studies at the biological level of analysis. • Explain one study related to localization of function in the brain. • Using one or more examples, explain effects of neurotransmission on human behavior. • Using one or more examples, explain functions of two hormones in human behavior. • Discuss multiple example of Neuroplasticity • Explain the effect of pheromones on behaviour • Examine one interaction between cognition and physiology in terms of behavior. Evaluate two relevant studies. • Discuss the use of brain imaging technologies in investigating the relationship between biological factors and behavior. • With reference to relevant research studies, to what extent does genetic inheritance influence behavior? • Examine one evolutionary explanation of behavior. • Discuss ethical considerations in research into genetic influences on behavior.
II. Cognitive Level of Analysis	• Explain how principles that define the cognitive level of analysis may

-	be demonstrated in research. • Discuss how and why particular research methods are used at the cognitive level of analysis. • Discuss ethical considerations related to research studies at the cognitive level of analysis. Evaluate schema theory with reference to research studies. • Evaluate multistore model of memory and the working memory model, with reference to research studies. • With reference to relevant research studies, to what extent is one cognitive process reliable. • Discuss the use of technology in investigative cognitive processes. • Evaluate one theory of how emotion may affect one cognitive process • Examine the processes of thinking and decision making • Evaluative the principle of reconstructive memory • Examine the cognitive biases in thinking and decision making
III. Socio-Cultural Level of Analysis	• Discuss how and why particular research methods are used at the socio-cultural level of analysis. • Explain how principles that define the socio-cultural level of analysis may be demonstrated in research. • Discuss ethical considerations related to research studies. • Evaluate social identity theory, making reference to relevant studies. • Explain the formation of stereotypes and their effect on behaviour. • Define the terms “culture” and “cultural norms.” • Examine the role of two cultural dimensions on behaviour. • Using one or more examples, explain “emic” and “etic” concepts. • Examine the effect of culture on cognition • Discuss enculturation and acculturation • Evaluate social cognitive theory
IV. Experimental Study - **Begin drafting of Internal assessment task**	• Students will be introduced to quantitative and qualitative research methods

	• Students will produce design and implement various small experimental research studies to prepare for internal assessment task. • Students will choose topic, look at related studies & plan experiment for internal task
V. HL Option (TBD)	• Students and teacher will determine what they wish to learn about; human development, abnormal psychology, relationships….

*Course will include instruction on reading comprehension, writing, research and presentation skill development as part of regular course content.

Grade: 11 Year Plan: IB Theory of Knowledge (TOK)

**Units of Study are used to cover the IB Theory of Knowledge standards, available on Managebac and by request*

UNITS of STUDY	Content/ Aims/ Outcomes
I. Introduction to TOK	• Introduction to the TOK Course, Essay, and Presentation • What is Theory of Knowledge? • How do you know what you know? Recognizing perspectives, gaining knowledge, and seeking truth.
II. Ways of Knowing: Introduction	• Brief explanations of the 8 Ways of Knowing: Sense Perception, Memory, Reason, Language, Emotion, Faith, Imagination, and Intuition. • Focus on Sense Perception • First Practice Presentation
III. Areas of Knowing: Introduction	• Brief explanation of the 8 Areas of Knowledge: the Arts, Ethics, History, Human Sciences, Natural Sciences, Mathematics, Indigenous Knowledge, Religious Knowledge • Focus on Ethics • First Practice Essay
IV. Memory WOK Depth Study	• Kinds of Memory • Eyewitness Testimony • Intuition and Cognitive Bias

	• Forgetting • Suggestibility • Sense Perception and Emotion • Trauma • Collective Memory and History • Second Practice Presentation
V. The Arts AOK Depth Study	• What are "the arts?" • Critical Judgment, Informed Opinions, and Emotion / Objectivity vs. Subjectivity • Development and Tradition • Ethics in Art and Propaganda
VI. The TOK Essay: Assessment in TOK	• TOK Essay Requirements and Format Review • Applying Familiar Concepts and Skills • Refreshing Core Concepts • How to write a Really Good Essay in 6 Steps • Second Practice Essay
VII. Reason WOK Depth Study	• Fast and Slow Thinking • Intuition and Reason • Deductive, Inductive, and Abductive Reasoning • Trends and Statistics • Deductive Reasoning: inference, implication, argument, premises, validity, truth, hypothesis and the scientific method

Grade: 11 Year Plan: IB Theory of Knowledge (TOK)

VIII. The Human Sciences AOK Depth Study	• Studying Human Beings: challenges and appropriate methods • Cultural Anthropology • Psychology • Economics
IX. The TOK Presentation: Assessment in TOK	• TOK Presentation Requirements and Format Review • How to do a really good presentation in 8 Steps • Third Practice Presentation
X. Additional Depth Studies TBA according to time restraints	