A Guide to Learning in the Diploma Years
Grades 11 and 12

2023-2024

Developing innovative, compassionate, and responsible citizens of the world.

Source: www.ibo.org and IBO subject documentation

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Choosing a program

Choosing the correct combination of classes is of the highest importance, and LAS advises each student individually on his or her course selections based on ability, interest, and requirements for entry into the universities of his or her choice. Students have some flexibility in course changes after the start of classes, but all programs must be set by the second week of the first semester of each year.

LAS Graduation Requirements

Students must meet a number of requirements to be eligible for the LAS High School Diploma. These requirements include satisfactory completion of required coursework, and, in the case of ELA students, earning a minimum score of 5.5 on the IELTS examination at any time prior to graduation. The school year, composed of two semesters, begins in late August and ends in early June. All students take at least seven classes each semester. In order to graduate, a student must earn a minimum of 24 credits. One half-credit is awarded for the successful completion of a course each semester. Check with your university advisor, because some universities may require more than the minimum LAS graduation requirements to be competitive in the admissions process.

Credit requirements are distributed across the following disciplines as shown:

Areas of Learning	Mainstream	ELA
English / English Lang Acquisition	4 credits	7 credits
Math	3 credits	3 credits
Science	3 credits	3 credits
Modern Foreign Language	3 credits	0 credits
Social Studies	3 credits	3 credits
Electives: Arts, PE, ICE, other	7 credits	7 credits
Theory of Knowledge / FOLK	1 credit	1 credit
Minimum requirements:	24 credits	24 credits

IB vs AP - A Practical Comparison

Advantages of IB

The IB program is not solely about academics; it also challenges students to enhance their personal growth. IB aspires to help schools develop well-rounded students with strong character and a global mindset. IB students often indicate that they have gained excellent time-management skills and other critical attitudes needed for academic and personal success.

The IB program increases understanding of languages and cultures and explores globally significant ideas and issues in each subject area. Subjects are not taught in isolation. IB classes are interdisciplinary and connect learning across the curriculum. The IB program is a liberal arts approach to education. Students must study two languages, math, science, individuals and societies, and the arts. There is both depth and breadth.

A unique part of the IB program is the requirement of three core courses for full diploma status: the theory of knowledge (TOK) course, the extended essay (EE) research project, and the creativity, action and service (CAS) component.

Finally, in terms of assessment, students have multiple opportunities in each course to "show what they know" using various modes of communication and formats. The IB program is not about memorizing and guessing from a list of answers, but about truly understanding the material at a deeper level.

Advantages of AP

The College Board states: "The purpose of these classes and tests is for students to earn college credit while in high school. Advanced Placement exams began in the 1950s as a way for students to stand out on their college applications, and they are still growing strong as kids prepare for a competitive market. The tests are offered in 34 subjects, which range from biology, statistics, and psychology to art history and studio art drawing."

With the option to skip some introductory classes, AP students can choose to graduate early from university. Further, AP students often find more flexibility in their scheduling at university because they can jump right into many courses that speak to their interests and career objectives.

Because of the accelerated speed of an AP class and the higher-level learning that occurs, many college admissions counselors find AP students well prepared for college-level learning. These students have shown that they can handle a fast-paced, academically challenging program, and that will serve them well in their post-secondary educational pursuits.

IB vs AP Assessments

For IB, externally assessed coursework, completed by students over an extended period under authenticated teacher supervision, forms part of the assessment for all IB courses and several program areas, including the TOK and the EE essays. In most subjects, students also complete in-school assessment tasks. These are either externally assessed or marked by teachers and then moderated by the IB.

For AP, the exams are given at the end of the year as the culmination of a year-long course. All AP exams (with a few exceptions) combine multiple-choice questions with a free-response section in either essay or problem-solving format. For students skilled at standardized testing, the AP might be a better program in terms of assessment.

LAS High School Diploma – English Language Acquisition

At LAS, students who are learning English follow a sheltered-immersion English language acquisition program balancing language study with content study. Students focus on the four basic skills of writing competency, reading/literacy, listening comprehension, and speaking. Through the ELA program, students also gain a sense of international understanding and share their cultural backgrounds and languages. Students are placed using the Oxford Online Placement Test or the Duolingo English test and must take TOEFL or IELTS to graduate.

Students are enrolled in sheltered classes in English, Social Studies and Sciences. In Modern Foreign Languages, Mathematics and in their elective choices, students are enrolled in classes with their mainstream LAS high school diploma counterparts. ELA students are also enrolled in Foundations of Learning & Knowledge (FOLK), which is a course that investigates the nature of learning across disciplines.

The chart below outlines the course options available for all 11th and 12th-grade students at LAS. *LAS will offer only those courses in the upcoming school year for which there is adequate enrollment and/or Faculty availability. Courses, numbers of sections and staff assignments are determined on the basis of need. Occasionally, circumstances may merit changes in the number and types of courses available. LAS reserves the right to cancel courses, to rearrange course sequences, and to make schedule changes for the purpose of leveling class sizes.*

Grade 11 & Grade 12

ENGLISH/STUDIES IN LANGUAGE & LITERATURE

- ❑ English 3
- ❑ English 4
- ❑ Literature and Reading

- ❑ AP English Language & Composition

- ❑ IB English A Language & Literature HL/SL
- ❑ IB Self-Taught A: Literature SL

LANGUAGE ACQUISITION (SECOND LANGUAGE)

- ❑ Beginner French
- ❑ Intermediate French

- ❑ IB English B HL/SL
- ❑ IB French Ab Initio SL
- ❑ IB French B HL/SL
- ❑ IB German Ab Initio SL
- ❑ IB Spanish Ab Initio SL
- ❑ IB Spanish B SL

SOCIAL STUDIES

- ❑ Economics
- ❑ Entrepreneurship
- ❑ Financial Markets
- ❑ Geography
- ❑ History
- ❑ Psychology

- ❑ AP European History
- ❑ AP Economics (Macro & Micro)

- ❑ IB Business Management HL/SL
- ❑ IB Economics HL/SL
- ❑ IB Environmental Systems & Societies SL
- ❑ IB Geography HL/SL
- ❑ IB Global Politics HL/SL
- ❑ IB History HL/SL
- ❑ IB Psychology HL/SL

EXPERIMENTAL SCIENCES

- ❑ Astronomy
- ❑ Biology
- ❑ Chemistry
- ❑ Coordinated Lab Science
- ❑ Mobile Makers/Coding

- ❑ AP Biology
- ❑ AP Chemistry
- ❑ AP Computer Science A
- ❑ AP Computer Science Principles
- ❑ AP Environmental Science
- ❑ AP Physics 1

- ❑ IB Biology HL/SL
- ❑ IB Chemistry HL/SL
- ❑ IB Computer Science SL
- ❑ IB Environmental Systems & Societies SL
- ❑ IB Physics HL/SL

MATHEMATICS

- ❑ Algebra 2 Extended Studies
- ❑ Applied Mathematics
- ❑ Statistics

- ❑ AP Calculus AB
- ❑ AP Precalculus

- ❑ IB Mathematics Analysis & Approach HL/SL
- ❑ IB Mathematics Applications & Interpretations HL/SL

ARTS

- ❑ Design
- ❑ Music Composition & Performance
- ❑ Studio Visual Art

- ❑ IB Visual Arts HL/SL

CORE

- ❑ *Foundations of Learning and Knowledge (G12 only)*
- ❑ IB Theory of Knowledge
- ❑ EE (Extended Essay) - not a course
- ❑ CAS (Creativity, Action and Service) - not a course

The IB Learner Profile

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

INQUIRERS

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

KNOWLEDGEABLE

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

THINKERS

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

COMMUNICATORS

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

PRINCIPLED

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

OPEN-MINDED

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

CARING

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

RISK-TAKERS

We approach uncertainty with forethought and determination; we work independently and cooperatively to explore new ideas and innovative strategies.

BALANCED

We understand the importance of balancing different aspects of our lives—intellectual, physical, and emotional—to achieve well-being for ourselves and others.

REFLECTIVE

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

Program of Study

Three distinct pathways to success in the Diploma Years Program

Option 1: LAS High School Diploma with optional AP Courses

All students who graduate from Leysin American School are awarded the LAS High School Diploma, including students who undertake IB Subjects and the full International Baccalaureate Diploma Programme. This prestigious high school diploma is accredited by the Commission on Secondary Schools of the New England Association of Schools and Colleges.

The guiding force at Leysin American School is to encourage all students to reach their full potential in every area, developing new skills and strengths in the process. LAS offers an academically balanced curriculum from Grades 7 through 12 leading to this award, with an ELA option for those who need support in English. Over the course of the program, students will concentrate on the key academic areas required for university entrance—English, mathematics and science—as well as other important subjects that help to develop greater personal and social awareness—modern languages, social sciences, humanities and arts.

In the Diploma Years, students can specialize their High School Diploma, meeting the requirements for college courses such as the arts, sciences, business, or social sciences. This is possible because students can choose their courses with more freedom than if they are part of the IB Diploma. All students will retain Math, English, and second languages until graduation requirements are met.

English Language Learners can choose a focused course of study to enable them to develop their language skills and also learn alongside native speakers in mathematics, arts, and physical education. This encourages students to share cultural backgrounds and international understanding. In the sheltered-immersion model, language and content learning are integrated to promote the mastery of English language skills, and language development and content-area knowledge are primary objectives. Students strengthen English language proficiency to excel in academic classes that require a high degree of English ability.

Option 2: LAS High School Diploma with IB Certificates

We are committed to the philosophies and principles behind the International Baccalaureate Organization because we believe that quality work and high standards are attainable by all young people, whether or not they choose to pursue individual IB courses or the full International Baccalaureate Diploma Programme. There are advantages to completing some IB Course certificates which in conjunction with the High School Diploma adds value to a student's college application.

Most classes offered in the Diploma Years Program are IB courses, based on the curriculum of the International Baccalaureate. Students studying for both year 11 and 12 at LAS have the option to

study the full 2 year Standard Level course and complete a formal exam under the supervision of the IB. It is also possible to take a certificate in English B HL and also HL Visual Art if a student has an aim of following this path in their further education.

Students who take this option will achieve a certificate from the IB which can be used alongside their High School Diploma in applying to university. Taking two or three course certificates as an IB courses student is quite common at LAS with English B, Mathematics and French being most popular. Students will be asked to make a decision on taking the IB exams in the spring of Grade 11. Students entering the second year of any two year IB course are obliged to take the external IB exams in May of their Senior year.

Option 3: LAS High School Diploma with Full IB Diploma Programme

Students who wish to complete the full IB Diploma should have a strong academic standing in a broad range of topics. The International Baccalaureate Organization, founded in Geneva, Switzerland, oversees this rigorous academic and prestigious academic programme, which is internationally recognized as one of the best university preparations available. The two-year programme usually begins in the eleventh grade and continues through the twelfth grade. IB studies are the highest academic level available in the school (and arguably in the world), students wish to challenge themselves in preparation for university.

The DP curriculum is made up of six subject groups and the DP core, comprising Theory of Knowledge (TOK), creativity, activity, service (CAS) and the extended essay.

Through the DP core, students reflect on the nature of knowledge, complete independent research and undertake a project that often involves community service.

Assessment in the IB Diploma

The International Baccalaureate® (IB) assesses student work as direct evidence of achievement against the stated goals of the Diploma Programme (DP) courses.

IB subject assessment procedures measure the extent to which students have mastered advanced academic skills in fulfilling these goals, for example:

- Analysing and presenting information
- Evaluating and constructing arguments
- Solving problems creatively.

Basic skills are also assessed, including:

- Retaining knowledge
- Understanding key concepts
- Applying standard methods.

In addition to academic skills, DP assessment encourages an international outlook and intercultural skills, wherever appropriate.

Making IB Diploma a Success

To be a successful IB Diploma student, it is necessary to be punctual both to classes and to school, to have an excellent attendance record, and to complete work on time and to an appropriate standard. In all courses, students must complete mandatory coursework assignments; typically this coursework amounts to 20 to 25% of the final grade for each course, although in some cases it may be higher or lower. Organization and maintaining consistent effort is essential, as is meeting deadlines on time.

There is a maximum of 7 points available for each of the six required elective courses; in addition, there are 3 points available for the combination of TOK and the Extended Essay. This makes a maximum total of 45 points. A minimum of three courses must be at Higher Level. In general, in order to receive the IB Diploma, a student will have to score at least a 4 in each subject, or 24 points or more in total. The full criteria for passing the IB DP are set out below and students need to be aware that a score of 24 points will not always guarantee a pass.

Course Selection

Students should consider their particular academic strengths as well as ask themselves which subjects they enjoy and thrive in. It is crucial that a student reflects carefully and chooses subjects in which they personally believe they will be a success. It is extremely important that students have an awareness of the direction they may wish to take at college. Knowledge of the country they may wish to study in and the subjects they might take are crucial in making the right choices for the Diploma, as with other pathways to success.

To be eligible for the IB Diploma, each student is required to complete six IB courses. One subject should be taken from each group in the curriculum model:

- Group 1: language A (language and literature)
- Group 2: second language (language acquisition)
- Group 3: individuals and societies
- Group 4: experimental sciences
- Group 5: mathematics
- Group 6: arts OR one subject from groups 2-4

(note: ESS can count for both group 3 and 4 allowing students to also double up in Group 2 or 6).

All IB Diploma students must choose:

- Three courses at higher level (HL)
- Three courses at standard level (SL)

In addition, all IB Diploma students must complete:

- A Creativity, Activity, & Service (CAS) program
- A course in the Theory of Knowledge (TOK)
- A 4,000-word Extended Essay (EE) in a subject of their choice

University Pathways

Choosing the right subjects for you

At LAS, we believe that the university advising process should guide students in choosing the course of study that will enable them to be their most successful self during their time of study here. Our process is highly personalized.

Whichever academic pathway is chosen (the full IB diploma, IB certificates, LAS diploma with or without AP courses), every student graduating from LAS will receive a LAS High School Diploma.

When selecting which pathway to pursue at LAS, one of the most important things for students to consider is finding the right fit of courses/program that will allow the student to thrive, both during their time at LAS and in their future goals.

It is also important for students to be aware of qualifications universities are looking for as part of their admissions processes when they are deciding which pathway at LAS is more appropriate for them. University Advisors are here to support students and families during the course selection process

Option 1: LAS High School Diploma with optional AP Courses

Ideal for students who wish to challenge themselves without pursuing the full IB diploma. AP courses may qualify students for universities worldwide. In some regions, the IB diploma may be preferred, but even in the UK, AP qualifies students to pursue their studies. It is not uncommon that various global universities will require the ACT or SAT in addition to AP courses to serve as a complete qualification. Not all AP courses are recognized by certain global universities; therefore, it is best to talk to a university advisor before selecting AP courses. AP exam points earned of 3 or higher may offer advanced standing and/or credit once at university.

Option 2: LAS High School Diploma with IB Certificates

Can be a great option for students who wish to study in the US or Canada or at some private universities in Europe (ACT/SAT are sometimes required in addition). Less suitable for a student who wants to enter directly into most courses in the UK, Europe, and Australia.

Option 3: LAS High School Diploma with Full IB Diploma Programme

Students should pursue this pathway if they would like to enter directly into worldwide programs - even the highly selective US institutions. For students who achieve the full IB Diploma, it is possible at certain universities to get up to one year of credit towards your university program with a 5 or higher in HL courses.

Each of the above pathways will allow students to apply to a range of universities, but it is helpful to keep in mind the student's future university plans when deciding which pathway is the best fit for them.

Please refer to the table below for general quick guidelines for admission to universities in certain countries:

Country of Study	Qualification Requirements for Admission
Australia	• Completion of IB Diploma, various AP courses and perhaps SAT/ACT for the LAS diploma • Can enter a Foundation year or Bridging Program if the student does not have the IB Diploma
United Kingdom	• Completion of IB Diploma or 3-5 AP courses (choose carefully) • Can enter a Foundation year if the student does not have the IB Diploma/AP requirements
United States	• All three pathways are acceptable for admission
Canada	• IB Diploma preferred at selective institutions • When looking at student's transcript, often looking only at Grade 11 and 12 • Can apply with the LAS High School Diploma with a combination of AP courses, IB certificates and/or SAT or ACT
Netherlands	• To be accepted to a Research University, students should be pursuing the full IB Diploma or generally 4 AP courses with grades of 3+ • Students can apply to Universities of Applied Sciences (UAS) with a LAS High School Diploma with 0-3 APs (depends on UAS) or LAS High School Diploma with IB Certificates
Switzerland (Cantonal or Federal Universities)	• Full IB Diploma - public and private universities • Please Note: IB Math SL Applications is now recognized for admission to cantonal or federal universities (exceptions for certain courses) • Possible to be accepted to other hotel management programs or business schools with LAS High School Diploma and AP courses, IB Certificates and/or SAT/ACT exam
Public Universities in Europe	• IB diploma preferred, however may be flexible with the LAS diploma with multiple AP courses. This is country-specific. Math exams or entry exams may be required.
Private Universities in Europe	• Will often function like universities in the US in terms of their admissions requirements. Would like to see the AP/IB, but it is not necessary to gain admission.
Hotel/Business Schools	• Several highly selective hotel schools (such as EHL) or Business Schools (such as ESADE) prefer the full IB diploma. It is possible to apply for admission to these schools without the full IB Diploma, but then it is important that the student has taken the SAT/ACT and/or AP courses and has very strong grades.

More detailed and specific information can be found at

http://www.ibo.org/university-admission/recognition-of-the-ib-diploma-by-countries-and-universities/country-recognition-statements/

Medicine or Engineering Programs in UK, Australia, and Europe:

- These programs are generally some of the most competitive and will often require specific combinations of courses for admission (usually HL or AP Biology and Chemistry for medicine and HL or AP Chemistry and Physics for engineering - HL Math is preferred for engineering programs).

Programs at public/federal/cantonal universities in Europe will often also ask the student to take a language proficiency exam from that country as part of the admissions process if the program is not taught in English. B2 level minimum but C1 strongly preferred or required.

There is also the potential for students to have to sit for an entrance examination as part of a university's admissions requirements.

Please Note: These requirements can vary between universities and countries. Students should ALWAYS review each university on their application list with their university advisor to ensure they are keeping track of specific requirements and deadlines for each individual university they are applying to!!

LAS Diploma Offerings

Language Courses

English 3 & 4

The goal of these English courses is for you to engage with texts through many different kinds of activities to gain exposure to language in a large variety of contexts--from videos, to cartoons, to films, to advertisements, to literary texts including poetry, drama, fiction and nonfiction. You will also produce your own texts in a range of different written genres, and you will have multiple opportunities to use the English language in a variety of registers, both social and academic. The course focuses on several themes- including Language & Culture, Multilingualism & Multiculturalism, Global Issues & Immigration- and through these themes you will develop your vocabulary, your grammatical understanding, and your writing skills. You will also expand your awareness of how language "works" as a tool of influence as well as develop a higher level of appreciation for literary texts.

French: Beginner and Intermediate

Students coming into the Diploma Years Program can take French at various levels. The course is designed to create a desire to learn a language as well as the technical skills involved. Both levels are 1-year courses.

Literature and Reading

The goal of this course is to improve your English reading skills, explore anglophone cultures and develop intercultural understanding. The purpose of the course is to act as a partner to English B SL/HL. In addition to improving reading skills, you will also develop your ability to write a variety of text types, share ideas and thoughts in group discussions and class presentations and augment your academic vocabulary. We will read a variety of texts based on the English B themes of sharing the planet, identities, human ingenuity, experiences, and social organization. The focus of the lessons will be on reading an individually selected novel or reading a novel or play as a class. You will be assessed on your understanding of the reading material and your efforts to understand key vocabulary. There will be a combination of traditional literary analysis with an application of the themes and motifs from the literature to the anglophone and wider world.

Social Studies Courses

Economics

This class will look at both macro and microeconomics through real world examples and case studies. The aims of this class are to have students develop an understanding of economic theories, models, ideals, and tools. Once these tools are developed students will use them to engage with real-world economic problems facing our global community. At the end of the course students will have a better understanding of how individuals' and societies' make and implement economic decisions.

Entrepreneurship

The goal of this course is to create ethical and responsible entrepreneurs through a triple bottom line strategy. We fulfill this goal by developing our vision, confidence, initiative, empathy, and resilience. These valuable building blocks enable us to leverage our strengths and passions to support our local and global communities. All actions are executed with careful consideration using the circular economic model and minimizing any negative impact on the natural environment.

Financial Markets

The objective of this class is first to establish and further students' financial comprehension and literacy from both a practical and historical standpoint. The second, and primary objective is to introduce students into the world of financial markets.

The finance industry is riddled with strange terminology and obscure financial instruments. The goal is to establish a concrete knowledge base of practical investment strategies, and go beneath the tip of the iceberg of the financial markets with technical analysis. To start, the course will examine different brokerages and compare/contrast the features and fee structures that differentiate one from another. Upon completing this comparison, students will sign up for a paper trading account (which is an account that uses fake/virtual money to invest in real time with market price action). This will lead to both an academic and applicable framework, leading into more complex derivatives.

This course will be a great primer for anyone considering a degree in economics, business, accounting, or finance, but will also apply to anyone who wants to know what investing looks like from a practical standpoint. The idea behind this class is to synthesize what is most useful in academic studies in economics and personal experience, and apply it in tangible ways for a skillset that lasts a lifetime.

Geography

This Geography course embodies global and international awareness in several distinct ways. It examines key global issues, such as poverty, sustainability and climate change. It considers examples and case studies at a variety of scales, from local to regional, national and international. Over two years you will undertake a study of: Populations in Transition, Disparities in Wealth and Development, Patterns in Environmental Quality and Sustainability, Patterns in Resource Consumption, Freshwater – Issues and Conflicts, Hazards and Disasters – Risk Assessment and Response and Extreme Environments.

History

This History class will allow students to explore historical topics that are interesting and relevant to them while working on their core skills, including: analyzing primary and secondary sources; developing historical arguments; making historical connections; and utilizing reasoning about comparison, causation, and continuity and change over time. Content options will include but are not limited to the causes and effects of war, regional history, history of diplomacy, rise of dictators, women's rights, and more.

Psychology

This course will teach you a set of scientifically-validated strategies for living a more satisfying life. The course explores what new results in psychological science teach us about how to be happier, how to feel less stressed, and how to flourish more. These scientific findings are put into practice by building the sorts of habits that will allow us to live a happier and more fulfilling life and provide opportunities to discuss how to apply these findings beyond our own lives to make our communities and our planet better too.

The course begins by introducing some misconceptions about what makes for a satisfying life. We'll see that many things we think matter for our happiness— wealth, material possessions, and even good grades— simply don't. In fact, recent studies suggest that these goals may even undermine our sense of wellbeing. Psychological biases and features of our mind that lead us astray, biases that make it hard for us to see what makes us happy and make us seek out the wrong sorts of things will all be examined. The course will involve a discussion of what psychology research shows about what we really should strive for to live a satisfying life. Scientifically-validated strategies for harnessing our cognitive biases will be reviewed to help live a better and more satisfying life. The course will also examine how to prevent procrastination and how to harness our automatic processes to better achieve our goals. The course will end by thinking critically about how to use what we've learned both to examine our own happiness and to make a difference in our communities.

Science Courses

Astronomy

This course covers the birth, life and death of stars and our Sun, as well as the origin of the planets, life on Earth and the search for extraterrestrial life. You will learn about galaxies and our Milky Way galaxy, the birth, life and death of the universe, large scale structures of the universe and the shape of space-time. Forty hours of practical work is required, including the use of astronomical equipment at the LAS observatory

The three main reasons to take Astronomy are as follows:

Romance: Astronomy is the stuff of legend. In times past, when religion and superstition were intimately linked to heavenly phenomena, the unexpected was often greeted with grave concern. By observing the motions and properties of objects in the sky, it was possible to understand more about the universe and our place in it.

Wonder: Astronomy has been a breeding ground for many science fiction films and programs such as Star Trek and Star Wars. This has resulted in amazing images of star-filled panoramas, prominences of the Sun and supernova explosions being brought into everyone's living room.

The search for the ultimate truth: Everyone can look up into the night sky and dream. Are there other planets like ours? Is there life out there? Astronomy promises to explain how we got here and where the universe is going – questions which touch every human on the planet.

Biology

The class will develop you as a critical thinker with a solid grasp of scientific concepts and their real world application. You will learn how to apply the scientific method to explore observations and answer questions. Through experiment-based learning we aim to expand your curiosity, interest and enjoyment of science and its methods of inquiry. You will develop a strong set of scientific skills due to our focus on the techniques of science, including practical investigation, techniques for processing data, research and resource evaluation, and presentation skills. You might: look at the local ecosystem and investigate inter-species relationships, study chemical processes used by plants to avoid competition, learn about how light is produced and absorbed in relation to photosynthesis, practice techniques for making observations, compare relevant research papers, and make hypotheses about and then investigate how aspects of the ecosystem are related.

Chemistry

The class will develop you as a critical thinker with a solid grasp of scientific concepts and their real world application. You will learn how to apply the scientific method to explore observations and

answer questions. Through experiment-based learning we aim to expand your curiosity, interest and enjoyment of science and its methods of inquiry. You will develop a strong set of scientific skills due to our focus on the techniques of science, including practical investigation, techniques for processing data, research and resource evaluation, and presentation skills. They should be helped to appreciate how the complex and diverse phenomena of the natural world can be described in terms of a small number of key ideas relating to the sciences which are both inter-linked, and are of universal application. Students will acquire the knowledge of chemical reactions, in-depth understanding of stoichiometry, redox reactions, bonding, application and further study of electrolysis, Hess' law and enthalpy.

Coordinated Lab Science

Coordinated Lab Science will involve content from each IB Science area Biology, Chemistry, Physics, Environmental Systems & Societies, and Astronomy. A series of general topics for investigation will be chosen and developed by you and your peers. These topics will be used as a focus for studying specific subject content. By taking this course you will develop a strong set of scientific skills due to the courses focus on the techniques of science including practical investigation, techniques for processing data, research and resource evaluation and presentation skills. This may involve looking at a local ecosystem and investigating interspecies relationships, chemical processes used by plants to avoid competition, how light is produced, absorbed and used in relation to photosynthesis, techniques for making observations, comparing relevant research papers, hypothesizing about and then investigating how some aspects of the studied ecosystem are related.

MobileMakers/Coding

This course introduces students to app development for mobile devices such as smartphones and tablets. Students experience an authentic workplace environment applying the skills of teamwork, problem-solving, collaboration and communication. Throughout this hands-on course, students build working apps for Apple mobile devices using the language and tools of professionals - Swift and Xcode. Each unit concludes with students applying the concepts learned to create an app of their own. The apps build and grow in complexity throughout the course, culminating in an app showcase, where students demonstrate an app they built of their own design. Students leave the course with a portfolio of 8 apps and a collection of skills highly valued in the workplace today

Math Courses

Algebra 2 Extended

This course is for students who have completed the Algebra 1 Extended course or who have demonstrated the equivalent mathematical competency. Students will continue to explore the connections between number, algebra, geometry and data. The focus in Algebra 2 Extended is to maintain and promote efficient algebra skills. Success in this course requires the ability to work efficiently through complex mathematical situations. Though some of the content overlaps with that of Algebra 2, the extent to which the topics are studied is much deeper. For example, this course studies functions much more deeply, such as quadratics, exponential, rational and logarithmic. This course also does a further exploration of trigonometry.

As with all courses at LAS, it will accommodate all learning experiences and abilities. Furthermore, students will engage in learning experiences that foster problem solving skills. Each year, students in this course will complete at least one investigation that draws on their lesson content and challenges them to investigate and communicate their findings mathematically.

This course is a prerequisite for the AP Pre-Calculus course.

Applied Mathematics

Applied mathematics is a course for students in grade 11 who do not wish to enroll in the IB Diploma programme mathematics courses. The course content is designed to allow students to experience the most relevant mathematics in everyday life. As with our other courses, the assessments are created to foster curiosity and develop students' investigation and problem-solving skills. There is a large focus on logical processes, financial mathematics and problem solving through numerical and algebraic manipulation.

Statistics

Statistics is a course for students in grade 12 who do not wish to enroll in the IB Diploma programme mathematics courses. The course content is designed to allow students to develop the skills to collect, analyze and report data appropriately. As with our other courses, the assessments are created to foster curiosity and develop students' investigation and problem-solving skills. There is a large focus on understanding and presenting data, but the students also gain an appreciation for probability and its applications. This course requires that students gain an understanding of different ways to present and collect data with and without technology.

Arts Courses

Design

This studio-based course is an introduction to Design. Students will define, research and create innovative solutions to design problems using DesignThinking and considering the needs of a client and/or stakeholders. They will learn and apply associated skills in 2D and 3D design media and software, drawing and modeling. Areas studied may cover Product Design, Advanced form-finding, 3D printing, Architecture and Graphic Design. Work will be presented using a variety of graphic forms and students will use self-reflection and peer critique to improve their outcomes.

Music Composition & Performance

In this course, it is more typical for students to work alone, though both individual and collaborative work in composition and performance are assessed. You will be introduced to simple aspects of music theory (musical keys, associated chords and notes and musical intervals and modes) and tools to help you remember and even memorize these incredibly important aspects of musical knowledge. To develop your performance ability, you will create and apply a realistic personal practice plan that will consider when, what, where and how you will practice scales and modes and performance techniques and improvisational methods relevant to your chosen musical instrument(s). You will also study well known players of your chosen musical instrument to learn from their practice regime and of the various factors that influenced their musical performance ability throughout their musical career. For composition, you will assess the work of your musical influences and rework a composition of theirs'. You will also create individual and collaborative compositions from scratch and use the technologies and instrumental talents of those around you to record your work using our classroom recording studio facilities. Assessment for this course will be project-based, where formative assessment will evaluate how well you move between the various stepping-stones of development throughout this course and summative assessment will evaluate your output of these processes, including your written, recorded and performance works.

Studio Visual Art

Studio Visual Art is for students in the LAS Diploma program. It is a general Art and Design course with a broad, multi-faceted focus on creativity and self-expression. Students can draw, paint, sculpt, and also experience photography, graphic design and video within this course. It develops critical and analytical thinking skills within an artistic process and can prepare you for further studies or a career in many Art and Design fields. It is possible to create a portfolio for further study in multiple Arts and Design fields while following this course.

AP (Advanced Placement) Offerings

AP Biology

AP Biology is an introductory college-level biology course. Students cultivate their understanding of biology through inquiry-based investigations as they explore the following topics: evolution, cellular processes, energy and communication, genetics, information transfer, ecology, and interactions. The AP Biology course is equivalent to a two-semester college introductory biology course for biology majors. Students should have successfully completed high school courses in biology and chemistry. This course requires that 25 percent of the instructional time will be spent in hands-on laboratory work, with an emphasis on inquiry-based investigations that provide students with opportunities to apply the science practices.

AP Calculus AB

This course is offered to grade 12 students who have successfully mastered the content in the Pre-IB / AP course and have the recommendation from their teacher. Students in this course must possess efficient algebra skills and be comfortable reading, writing and communicating in the language of mathematics. This course is equivalent to a first semester Calculus course at university. Students must demonstrate efficient algebra skills even in complex tasks and have the recommendation from their grade 11 teacher. The content focus of this course is to delve deeply into the Calculus strand of mathematics by studying Limits, Derivatives, Indefinite Integrals and Definite Integrals while also focusing on four mathematical practices: Process, Connecting Representations, Justification and Communication / Notation.

AP Chemistry

Students will study 4 big ideas over 9 units of content. The big ideas are focused around scale, structure, properties, transformation and energy. The content includes but not exclusively chemical reactions, kinetics, thermodynamics, acids and bases. As a prerequisite students should have successfully completed a general high school chemistry course and Algebra II (or equivalent). This course requires that 25% of instructional time will be spent in hands-on laboratory work, with an emphasis on inquiry-based investigations that provide students with opportunities to demonstrate the foundational chemistry principles and apply the science practices. This includes a minimum of 16 hands-on labs (at least six of which are inquiry-based).

Exam requirements: AP Chemistry is 3 hours and 15 minutes long and includes 60 multiple-choice questions and 7 free-response questions.

AP Computer Science A

AP Computer Science A introduces students to computer science through programming. Fundamental topics in this course include the design of solutions to problems, the use of data structures to organize large sets of data, the development and implementation of algorithms to process data and discover new information, the analysis of potential solutions, and the ethical and social implications of computing systems. The course emphasizes object-oriented programming and design using the Java programming language. [1]

AP Computer Science Principles

Computer science involves problem-solving, hardware, and algorithms that help people utilize computers and incorporate multiple perspectives to address real-world problems in contemporary life. As the application of computer science is integrated into more aspects of our lives, it is important to understand the impact of computer science and how to maintain privacy, safety, and security not only when using computers but also while being the innovators of new computing applications. The course strives to engage all students by allowing them to discover the power of computer science through rewarding yet challenging concepts

The main themes are;.

- Computational Solution Design—Design and evaluate computational solutions for a purpose.
- Algorithms and Program Development—Develop and implement algorithms.
- Abstraction in Program Development—Develop programs that incorporate abstractions. Code Analysis—Evaluate and test algorithms and programs.
- Computing Innovations—Investigate computing innovations.
- Responsible Computing—Contribute to an inclusive, safe, collaborative, and ethical computing culture.

AP Economics - Macro/Micro

AP Micro/Macroeconomics is a university-level course that introduces students to the principles of economics that apply to the functions of individual economic decision-makers and to an economic system as a whole.

The course places particular emphasis on the study of national income and price-level determination. It also develops students' familiarity with economic performance measures, the financial sector, stabilization policies, economic growth, and international economics. Students learn to use graphs, charts, and data to analyze, describe, and explain economic concepts.[2]

[1] AP® Computer Science A COURSE AND EXAM DESCRIPTION Effective Fall 2019

[2] AP® Macroeconomics COURSE AND EXAM DESCRIPTION Effective Fall 2019

The course also develops students' familiarity with the operation of product and factor markets, distributions of income, market failure, and the role of government in promoting greater efficiency and equity in the economy. Students learn to use graphs, charts, and data to analyze, describe, and explain economic concepts.[3]

AP English Language & Composition

The AP English Language and Composition course focuses on the development and revision of evidence-based analytic and argumentative writing, the rhetorical analysis of nonfiction texts, and the decisions writers make as they compose and revise. Students evaluate, synthesize, and cite research to support their arguments. Additionally, they read and analyze rhetorical elements and their effects in nonfiction texts—including images as forms of text— from a range of disciplines and historical periods.[4]

AP Environmental Science

The AP Environmental Science course is designed to be the equivalent of a one-semester, introductory college course in environmental science, through which students engage with the scientific principles, concepts, and methodologies required to understand The interrelationships within the natural world. The course requires that students identify and analyze natural and human-made environmental problems, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving or preventing them. Environmental science is interdisciplinary, embracing topics from geology, biology, environmental studies, environmental science, chemistry, and geography.[5]

AP European History

In AP European History, students investigate significant events, individuals, developments, and processes from approximately 1450 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical connections; and utilizing reasoning about comparison, causation, and continuity and change over time. The course also provides seven themes that students explore throughout the course in order to make connections among historical developments in different times and places: interaction of Europe and the world, economic and commercial development, cultural and intellectual development, states and other institutions of

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[3] AP® Microeconomics COURSE AND EXAM DESCRIPTION Effective Fall 2019
[4] AP® English Language & Composition COURSE AND EXAM DESCRIPTION Effective Fall 2020
[5] AP® Environmental Science COURSE AND EXAM DESCRIPTION Effective Fall 2022

power, social organization and development, national and European identity, and technological and scientific innovations.[6]

AP Physics 1

AP Physics 1 is an algebra-based introductory college-level physics course. Students cultivate their understanding of physics through inquiry-based investigations as they explore these topics: kinematics, dynamics, circular motion and gravitation, electric charge and electric force, DC circuits and mechanical waves and sound. This course requires that 25% of instructional time will be spent in hands-on laboratory work, with an emphasis on inquiry-based investigations that provide students with opportunities to demonstrate the foundational physics principles and apply the science practices. There are no prerequisite courses. Students should have completed Geometry and be concurrently taking Algebra II or an equivalent course. Although the Physics 1 course includes basic use of trigonometric functions, this understanding can be gained either in the concurrent math course or in the AP Physics 1 course itself.

Exam requirements:

AP Physics 1 is assessed in one 3 hour exam. This includes 50 multiple choice questions and 5 free response questions. A calculator is allowed on both sections of the exam.

AP Precalculus

This course will enable motivated students to obtain university credit through the Advanced Placement Precalculus exam. AP Precalculus will prepare students who start algebra 1 in 9th grade for a successful transition into a STEM major in college. Specifically, AP Precalculus will help…

- Students who take algebra 1 before 9th grade prepare for AP Calculus.
- Students fulfill their university math requirement when their majors and careers do not require calculus.

This course will focus on modeling real-world, dynamic phenomena while using multiple forms of representation and learning how to manipulate and harness this information. Students will study a broad spectrum of function types that are foundational for careers in mathematics, physics, biology, health science, social science, and data science. As this course may very well be the last mathematics course of a student's secondary education, the class is designed to provide a coherent capstone experience.

[6] AP® European History COURSE AND EXAM DESCRIPTION Effective Fall 2020

IB (International Baccalaureate) Offerings

Group 1: Language A

English A Language and Literature, School-Supported Self-Taught Language A Literature

These courses are designed for students who have experience of using the language of the course in an academic context. The language background of such students, however, is likely to vary considerably—from monolingual students to students with more complex language profiles. The study of texts, both literary and non-literary, provides a focus for developing an understanding of how language works to create meaning in a culture, as well as in particular texts. All texts may be understood according to their form, content, purpose and audience, and through the social, historical, cultural and workplace contexts that produce and value them. Responding to, and producing, texts promotes an understanding of how language sustains or challenges ways of thinking and being.

The IB requires students to choose at least one Language A. Students for whom English is their second language, are encouraged to study their mother tongue as an A language. The study of two A languages will gain the student a Bilingual IB Diploma.

The underlying principle of students learning two languages is to promote an understanding of other cultures through the study of languages and their literature, and to develop communicative competence.

The language and literature course is offered at SL and HL. The SSST Language A Literature course is offered only at SL.

Language A: Language and Literature

In this course, students study a wide range of literary and non-literary texts in a variety of media. By examining communicative acts across literary form and textual type alongside appropriate secondary readings, students will investigate the nature of language itself and the ways in which it shapes and is influenced by identity and culture. Approaches to study in the course are meant to be wide ranging and can include literary theory, sociolinguistics, media studies and critical discourse analysis among others.

The course is centered around three core components:

- Readers, writers and texts
- Time and space
- Intertextuality: connecting texts

The model for language A: language and literature is the same at SL and HL but there are significant quantitative and qualitative differences between the levels.

SL students are required to study four literary works and a number of non-literary texts that are equivalent in teaching and learning time, whereas HL students are required to study six literary works and a number of non-literary texts that are equivalent in teaching and learning time.

In paper 1 (non-fiction analysis), both SL and HL students are presented with two previously unseen non-literary extracts or texts from different text types, each accompanied by a guiding question. SL students are required to write a guided analysis of one of these, while HL students must write guided analyses of both non-literary extracts or texts.

In addition, HL students will have a fourth assessment component, the higher level (HL) essay, a written coursework task that requires students to explore a line of inquiry in relation to a studied non-literary text or texts, or a literary text or work. The outcome of this exploration is a 1200-1500 word essay in which HL students are expected to demonstrate a deeper understanding of the nature of linguistic or literary study.

In the language A: language and literature course students will learn about the complex and dynamic nature of language and explore both its practical and aesthetic dimensions. They will explore the crucial role language plays in communication, reflecting experience and shaping the world. Students will also learn about their own roles as producers of language and develop their productive skills. Throughout the course, students will explore the various ways in which language choices, text types, literary forms and contextual elements all affect meaning. Through close analysis of various text types and literary forms, students will consider their own interpretations, as well as the critical perspectives of others, to explore how such positions are shaped by cultural belief systems and to negotiate meanings for texts. Students will engage in activities that involve them in the process of production and help shape their critical awareness of how texts and their associated visual and audio elements work together to influence the audience/reader and how audiences/readers open up the possibilities of texts. With its focus on a wide variety of communicative acts, the course is meant to develop sensitivity to the foundational nature, and pervasive influence, of language in the world at large.

School-Supported Self-Taught Language A: Literature

This course is intended to give students the opportunity to study literature written in their first language if that language is not offered as a taught course by the School. The first language of the student is the language in which the student is most competent. This will normally be the language of the environment to which the student has been exposed from an early age or for an extended period. Students may choose this option because they have a personal interest in literature written in that language or because they need to do so for university entrance. The Language A: Literature - School-Supported, Self-Taught course is a literature-based course that is demanding and personally challenging.

Students who wish to follow the School-Supported, Self-Taught option will receive limited internal School support. The School-Supported, Self-Taught option is not covered by the regular LAS tuition fees structure for Grade 11 and 12. Parents and students (in consultation with the SSST Coordinator) are required to locate a tutor who is knowledgeable about the IB Diploma School-Supported, Self-Taught programme and they are also responsible for the direct payment of any fees charged by the tutor. Students agree to commit to at least one online tutoring session every two weeks.

The IB Language A: Literature - School-Supported, Self-Taught course is available at Standard Level only.

Group 2: Language B

Language Acquisition

English, French, German, Spanish

Language acquisition consists of two modern language courses — Language Ab initio and Language B SL (Standard Level) or HL (Higher Level) —that at LAS are offered in English, French, German, and Spanish. Language Ab initio and Language B SL or HL are language acquisition courses designed to provide students with the necessary skills and intercultural understanding to enable them to communicate successfully in an environment where the language studied is spoken. This process allows the learner to go beyond the confines of the classroom, expanding their awareness of the world and fostering respect for cultural diversity.

The two modern language courses—language ab initio and language B—develop students' linguistic abilities through the development of receptive, productive and interactive skills.

Language B SL and HL

Language B is a language acquisition course designed for students with some previous experience of the target language. In the Language B course, students further develop their ability to communicate in the target language through the study of language, themes and texts. In doing so, they also develop conceptual understandings of how language works, as appropriate to the level of the course.

English is available at SL and HL levels.
French is available at Ab initio, SL and HL levels.
German is available at Ab initio level.

Spanish is available at Ab initio and SL levels.

Distinction between SL and HL

At both levels of language B (SL and HL), students learn to communicate in the target language in familiar and unfamiliar contexts. They describe situations, narrate events, make comparisons, explain problems, and state and support their personal opinions on a variety of topics relating to course content. The study of two literary works originally written in the target language is required only at language B HL. The distinction between language B SL and HL can also be seen in the level of competency the student is expected to develop in the receptive, productive and interactive skills described below.

Language B HL

At HL, students are expected to extend the range and complexity of the language they use and understand in order to communicate. They continue to develop their knowledge of vocabulary and grammar, as well as their conceptual understanding of how language works, in order to construct, analyze and evaluate arguments on a variety of topics relating to course content and the target language culture(s).

Receptive skills:
Students understand and evaluate a wide variety of written and spoken authentic personal, professional and mass media texts; they understand fundamental elements of literary texts such as theme, plot and character. They analyze arguments, distinguishing main points from relevant supporting details and explanations. They use a variety of strategies to deduce meaning.

Productive skills:
Students present and develop their ideas and opinions on a variety of topics, both orally and in writing. They construct and support arguments with explanations and examples. They speak and write at length, and with purpose, in order to meet a wide range of communicative needs: describing, narrating, comparing, explaining, persuading, justifying, evaluating.

Interactive skills:
Students initiate, maintain and close oral exchanges, displaying some ability to make adjustments in style or emphasis. They use a variety of strategies to maintain the flow of conversations and discussions on a variety of topics relating to course content and the culture(s) of the target language.

Students are adept at negotiating meaning and fostering communication.

Language B SL

Receptive skills:

Students understand a range of written and spoken authentic personal, professional and mass media texts on topics of interest. They understand descriptions of events, feelings and wishes; they understand comparisons and recognize a straightforward, linear argument. They use context to deduce the meaning of sentences and unknown words and phrases.

Productive skills:

Students write texts for a variety of purposes and make oral presentations on topics of interest. They write descriptive texts and personal correspondence; they make comparisons, narrate stories, provide detailed accounts, and express their thoughts and opinions on abstract or cultural topics.

Interactive skills:

Students initiate and maintain the flow of conversations and discussions. They express and respond to opinions and feelings on a variety of topics. They use and understand clear speech on a variety of topics relating to course content and the culture(s) of the target language. Students use a variety of strategies to negotiate meaning and foster communication.

Language Ab initio: French, German and Spanish

Language Ab initio is a language acquisition course designed for students with no prior experience of the target language, or for those students with very limited previous exposure. It should be noted that language ab initio is offered at SL only. Because of the inherent difficulty of defining what constitutes "very limited exposure" to a language, it is not possible to list specific conditions such as the number of hours or the nature of previous language instruction; however, it is important

to note that any student who is already able to understand and respond to spoken and written language on a range of common topics cannot take a language ab initio class as this would not provide an appropriate academic challenge.

Receptive:

Students understand, both orally and in writing, simple sentences and some more complex sentences relating to the five prescribed themes and related topics. They understand simple authentic and adapted written and audio texts and related questions in the target language.

Productive:

Students express information fairly accurately, in both writing and in speech, using a range of basic vocabulary and grammatical structures. They communicate orally and respond appropriately to most questions on the five prescribed themes and related topics.

Interactive:

Students understand and respond clearly to some information and ideas within the range of the five prescribed themes and related topics. They engage in simple conversations. They use strategies to negotiate meaning and foster communication.

Group 3: Individuals and Societies

Business Management

Students examine how business decisions are influenced by factors that are internal and external to an organization 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.

The business management course encourages the application of local, national and global examples to content and concepts; the internal assessment (IA) for both SL and HL is an individual business research project that allows greater analysis and evaluation of content, concepts and context. Students can develop a deeper understanding of an organization by studying its processes through the lenses of creativity, change, ethics and sustainability.

For the external assessment (paper 1 SL and HL), students will be assessed on their knowledge of important contemporary business topics through their analysis of a fictitious business. Paper 2 (SL and HL) has a greater focus on developing students' analytical and financial quantitative skills. This will allow students to combine their qualitative writing as business communicators with deeper financial analysis. In paper 3 (HL only) students apply their knowledge of business tools and content through an innovative and potentially disruptive social enterprise. This paper will allow business students to demonstrate their empathetic, creative, analytical and evaluative skills. It will allow students to make ethical strategic decisions for their stakeholders on a disruptive good or service; in the process, changing the lives of their stakeholders for the better.

Distinction between SL and HL

The SL course in business management differs from the HL course in terms of the:

- Recommended hours devoted to teaching (150 hours for SL compared to 240 hours for HL)
- Extra depth and breadth required (extension material for HL only)
- Nature of the examination questions in papers 2 and 3.
    - Paper 2 for both SL and HL focuses on developing quantitative skills; however, HL students will need to develop these further in greater depth.
    - Paper 3 is an HL-only paper based on a social enterprise, where students identify and describe a human need and the potential organizational challenges facing the social entrepreneur. Further to this, students are required to write a decision-making document that includes a business recommendation.

Assessment:

- Paper 1 (HL/SL)
    - Based on a pre-released statement that specifies the context and background for the unseen case study.
    - Covers syllabus content units 1 - 5 excluding HL extensions (30 marks)
- Paper 2 (HL/SL)
    - Based on unseen stimulus material with a quantitative focus.
    - Covers syllabus content units 1 - 5 including HL extensions for HL only students (40 marks - SL, 50 marks - HL)
- Paper 3 (HL Only)
    - Based on unseen stimulus material with a quantitative focus.

    - Covers Syllabus Content Units 1 - 5 including HL extensions (25 marks)
- Internal Assessment (HL/SL)
    - 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)

Weightings:

	Paper 1	Paper 2	Paper 3	Internal Assessment
SL Students	35%	35%	-	30%
HL Students	25%	30%	25%	20%

Economics[7]

The economics course is focused on inquiry-based teaching and learning, in which students are given the opportunity to explore economic theories or global issues using real-world examples. The teaching of the economics content should, therefore, be supported by focusing on real-world issues and applying real-world examples. In some of the assessments, using real-world examples will be the basis of the response and an argument must be formed around them. This argument should then demonstrate the student's understanding of economics through the lens of a real example rather than the response being purely theoretical. In doing this the students will be able to go beyond merely "stating" an example in a theoretical response. Students need to unpack their examples to clearly demonstrate/analyse/justify/evaluate why they are relevant examples for particular economic issues.

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

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

Distinction between SL and HL

SL and HL students of economics are presented with a common syllabus, with an HL extension in some topics. The syllabus for both SL and HL students requires the development of certain skills and techniques, attributes and knowledge—as described in the assessment objectives of the programme.

While the skills and activity of studying economics are common to both SL and HL students, the HL student is required to acquire a further body of knowledge—including the ability to analyse,

[7] Taken from IBO Economics Guide, first assessment 2022

synthesize and evaluate that knowledge—and to develop quantitative skills in order to explain and analyse economic relationships. These quantitative skills are specifically assessed at HL in paper 3.

No prior knowledge of economics is required, however, Higher Level economics students should be comfortable with more difficult mathematical concepts due to the content of the HL course. Standard level economics students would benefit if they feel familiar with mathematical tools such as index numbers, percentages, simple multiplications and being able to draw and interpret graphs.

Assessment:	SL	HL
Paper 1 (1 hour and 15 minutes) An extended response paper (25 marks) Assessment objectives: AO1, AO2, AO3, AO4 Syllabus content (excluding HL extension material) Students answer one question from a choice of three. (25 marks)	30%	20%
Paper 2 (1 hour and 45 minutes) A data response paper (40 marks) Assessment objectives: AO1, AO2, AO3, AO4 Syllabus content (excluding HL extension material). Includes some quantitative questions. Students answer one question from a choice of two. (40 marks)	40%	30%
Paper 3 (1 hour and 45 minutes) A policy paper (60 marks) Assessment objectives: AO1, AO2, AO3, AO4 Syllabus content including HL extension material. Includes both quantitative and qualitative questions. Students answer two compulsory questions. (30 marks per question)	N/A	30%
Internal assessment (20 teaching hours) This component is internally assessed by the teacher and externally moderated by the IB at the end of the course. Students produce a portfolio of three commentaries, based on different units of the syllabus (excluding the introductory unit) and on published extracts from the news media. Each of the three commentaries should use a different key concept as a lens through which to analyse the published	30%	20%

extracts. Maximum 800 words for each commentary (45 marks)		

Geography[8]

The aims of the geography course at SL and HL are to enable students to: 1. develop an understanding of the dynamic interrelationships between people, places, spaces and the environment at different scales 2. develop a critical awareness and consider complexity thinking in the context of the nexus of geographic issues, including: • acquiring an in-depth understanding of how geographic issues, or wicked problems, have been shaped by powerful human and physical processes • synthesizing diverse geographic knowledge in order to form viewpoints about how these issues could be resolved 3. understand and evaluate the need for planning and sustainable development through the management of resources at varying scales.

Population, Climate Change and Resources.

The topics covered in this theme include areas of knowledge, geographical concepts and skills which are also relevant to other schemes. The theme examines the nature of human populations, their impact on the planet in terms of climate change, and the human ability to exploit resources. Thus, it is appropriate that the three topics of Population, Climate Change and Resources are considered together.

Geography options common to SL & HL:

- Hazards & Disasters
- Freshwater
- Tourism

The HL extension theme focuses on the global interactions, flows and exchanges arising from the disparities that exist between places. It presents important and contestable geographic issues of change in space and time for the HL student to question. This part of the syllabus is divided into three units relating to global interactions and global development.

Teaching is largely based on case studies, and students' research skills and inquiry methodologies are emphasized. Specific skills include data analysis, including simple statistical analysis, presentation of arguments and results in short essays, map work, etc.

Both higher and standard level will have to carry out Internal Assessment work. A fieldwork trip is planned for both higher and standard level students, to facilitate practical research work and completion of the internal assessment.

Global Politics[9]

The Diploma Programme Global Politics course enables you to critically engage with different and new perspectives and approaches to politics in order to understand the challenges of the changing

[8] Taken from IBO Geography Guide, updated November 2019

[9] Taken from IBO Global Politics Guide, First assessment 2017

world and become aware of your role in it as active global citizens. This course explores key political concepts such as power, equality, sustainability and peace in a range of contexts. It will allow you to develop an understanding of the local, national, international and global dimensions of political activity and processes, as well as to explore political issues affecting your own lives. The course will also help you to understand abstract political concepts by grounding them in real-world examples and case studies.

The core units of the course together make up a central unifying theme of "people, power and politics". The emphasis on "people" reflects the fact that the course explores politics not only at a state level but also explores the function and impact of non-state actors, communities, groups and individuals. The concept of "power" is also emphasized as being particularly crucial to understanding the dynamics, tensions and outcomes of global politics. Throughout the course, issues such as conflict, migration or climate change are explored through an explicitly political lens: "politics" provide a uniquely rich context in which to explore the relationship between people and power.

You will be able to critically engage with different and new perspectives and approaches to politics in order to understand the challenges of the changing world and become aware of your role in it as active global citizens. This course explores key political concepts such as power, equality, sustainability and peace in a range of contexts. It will allow you to develop an understanding of the local, national, international and global dimensions of political activity and processes, as well as to explore political issues affecting your own lives. The course will also help you to understand abstract political concepts by grounding them in real-world examples and case studies.

Assessment:	SL	HL
Paper 1 (1 h 15 min) Stimulus-based paper based on a topic from one of the four core units Four compulsory short-answer/structured questions (25 marks)	30%	20%
SL-Paper 2 (1 h 45 min) Students must write two essays from a choice of eight, each selected from a different core unit (50 marks) HL-Paper 2 (2 h 45 min) Students must write three essays from a choice of eight, each selected from a different core unit (75 marks)	45%	40%
Internal assessment (20 hours) This component is internally assessed by the teacher and externally moderated by the IB at the end of the	25%	20%

course. Engagement activity A written report (2,000-word maximum) on a political issue explored through engagement and research. (20 marks)		
HL extension: global political challenges (90 hours) Two video recorded oral presentations (10-minute maximum each) of two case studies chosen from two different HL extension topics (20 marks)	NA	20%

History

The IB Diploma Programme (DP) history course is a world history course based on a comparative and multi-perspective approach to history. It involves the study of a variety of types of history, including political, economic, social and cultural, and provides a balance of structure and flexibility. The course emphasizes the importance of encouraging students to think historically and to develop historical skills as well as gaining factual knowledge. It puts a premium on developing the skills of critical thinking, and on developing an understanding of multiple interpretations of history. In this way, the course involves a challenging and demanding critical exploration of the past.

All students at LAS, higher and standard level, look at one prescribed subject, which is assessed through a source based examination paper.

- The move to global war

All students will also explore two key topics in world history. These are:

- Causes and effects of 20th-century wars
- The Cold War: Superpower tensions and rivalries (20th century)

In addition, HL students will study the following regional topic:

- History of the Americas

Assessment:

Historical investigation:1500-200 words (SL 25%, HL 20%)

- Paper 1 (HL/SL): Source analysis paper; five source questions (1 hour)
- Paper 2 (HL/SL): Essay paper: two timed essays (1.5 hours); based on two world history topics

- Paper 3 (HL): Essay paper: three timed essays (2.5 hours); regional options

Psychology[10]

Psychology is the rigorous and systematic study of mental processes and behaviour. It is a complex subject which draws on concepts, methods and understandings from a number of different disciplines. There is no single approach that would describe or explain mental processes and behaviour on its own as human beings are complex animals, with highly developed frontal lobes, cognitive abilities, involved social structures and cultures. The study of behaviour and mental processes requires a multidisciplinary approach and the use of a variety of research techniques whilst recognising that behaviour is not a static phenomenon, it is adaptive, and as the world, societies and challenges facing societies change, so does behaviour.

At the core of the DP psychology course is an introduction to three different approaches to understanding behaviour:

- Biological approach to understanding behaviour
- Cognitive approach to understanding behaviour
- Sociocultural approach to understanding behaviour.

The knowledge, concepts, theories and research that have developed the understanding in these fields will be studied and critically evaluated to answer some of the questions being asked by psychologists today.

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

The contribution and the interaction of the three approaches can be best understood through the options.

There are four options in the course. They focus on areas of applied psychology:

- Abnormal psychology
- Developmental psychology
- Health psychology
- Psychology of relationships.

The options provide an opportunity to take what is learned from the study of the approaches to psychology and put it into the context of specific lines of inquiry, broaden students' experience of the discipline and develop the students' critical inquiry skills.

[10] Taken from IBO Psychology Guide, First assessment 2019

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

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

Psychology studies human beings and as such it is paramount that the ethical implications in any line of investigation, and at all points in the

The following extensions to the core approaches are studied at HL only:

- The role of animal research in understanding human behaviour
- Cognitive processing in the digital world
- The influence of globalization on individual attitudes, identities and behaviour.

Assessment:	SL	HL
Paper 1 (2 hours) Section A: Three short-answer questions on the core approaches to psychology (27 marks) Section B: One essay from a choice of three on the biological, cognitive and sociocultural approaches to behaviour (22 marks) (Total 49 marks)	50%	NA
Paper 1 (2 hours) Section A: Three short-answer questions on the core approaches to psychology (27 marks) Section B: One essay from a choice of three on the biological, cognitive and sociocultural approaches to behaviour. One, two or all of the essays will reference the additional HL topic (22 marks) (Total 49 marks)	NA	40%
Paper 2 (1 hour) One question from a choice of three on one option (22 marks)	25%	NA
Paper 2 (2 hours) Two questions; one from a choice of three on each of two options (Total 44 marks)	NA	20%

Paper 3 (1 hour) Three short-answer questions from a list of six static questions on approaches to research (24 marks)	NA	20%
Internal assessment (20 hours) This component is internally assessed by the teacher and externally moderated by the IB at the end of the course. Experimental study A report on an experimental study undertaken by the student (22 marks)	25%	20%

Group 4: Experimental Sciences

Biology, Chemistry, Physics, Environmental Systems & Societies, Astronomy, Computer Science

Group 4 students at standard level (SL) and higher level (HL) undertake a common core syllabus, a common internal assessment (IA) scheme and have some overlapping elements in the option studied. The syllabus encourages the development of certain skills, attributes and attitudes. While the skills and activities of group 4 science subjects are common to students at both SL and HL, students at HL are required to study some topics in greater depth, in the additional higher level (AHL) material and in the common options.

Experimental work is carried out both individually and in small groups and support is given where possible to students for whom English is a second or additional language.

Biology (SL/HL)

Biology is the study of life. The first organisms appeared on the planet over 3 billion years ago and, through reproduction and natural selection, have given rise to the 8 million or so different species alive today. Estimates vary, but over the course of evolution 4 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 underway, 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 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.

Distinction between SL and HL

Higher level biology is an in-depth study of modern biology and provides a sound foundation for college and university courses in biology, medicine, biochemistry, environmental studies, etc. A solid foundation in biology and a good working knowledge of chemistry are required for this course.

Standard level biology is narrower in breadth and depth but gives a good foundation to keep options of further study open. Both courses contain compulsory core material and in addition, students have to study one optional topic.

Prior learning

Past experience shows that students will be able to study Biology at SL successfully with no background in, or previous knowledge of, science. Their approach to learning, characterized by the IB learner profile attributes, will be significant here.
However, for most students considering the study of a group 4 subject at HL, while there is no intention to restrict access to group 4 subjects, some previous exposure to formal science education would be necessary.

SL Assessment

Component	Overall weighting (%)	Approximate weighting of objectives (%)		Duration (hours)
		1+2	3	
Paper 1	20	10	10	¾
Paper 2	40	20	20	1¼
Paper 3	20	10	10	1
Internal assessment	20	Covers objectives 1, 2, 3 and 4		10

HL Assessment

Component	Overall weighting (%)	An approximate weighting of objectives (%)		Duration (hours)
		1+2	3	
Paper 1	20	10	10	1
Paper 2	36	18	18	2¼
Paper 3	24	12	12	1¼
Internal assessment	20	Covers objectives 1, 2, 3 and 4		10

Chemistry (SL/HL)

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.
The Diploma Programme chemistry course includes the essential principles of the subject but also, through the 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 a 21st-century scientific endeavour and are important life-enhancing, transferable skills in their own right.

Distinction between SL and HL

Higher level chemistry is an in-depth study of modern chemistry and provides a sound foundation for college and university courses in chemistry, medicine, biochemistry, pharmacology, environmental studies, chemical engineering, etc. This chemistry course requires previous knowledge as certain areas of the subject are studied in considerable detail.

Standard level chemistry has been specifically designed for the student who wishes to know more of the applications of chemistry, while still wanting to further their knowledge of the more "pure" aspects of the subject. The common core of the syllabus covers similar material to the higher level course although not in the same detail.

Prior learning

Past experience shows that students will be able to study a group 4 science subject at SL successfully with no background in, or previous knowledge of, science. Their approach to learning, characterized by the IB learner profile attributes, will be significant here.
However, for most students considering the study of a group 4 subject at HL, while there is no intention to restrict access to group 4 subjects, some previous exposure to formal science education would be necessary.

SL + HL Assessment

Component	Overall weighting (%)	An approximate weighting of objectives (%)		Duration (hours)
		1+2	3	
Paper 1	20	10	10	¾
Paper 2	40	20	20	1¼

Paper 3	20	10	10	1
Internal assessment	20	Covers objectives 1, 2, 3 and 4		10

Computer Science SL/HL

Computer Science is regarded as an experimental science, alongside biology, chemistry, design technology, physics and environmental systems and societies – and sits in the Group 4 list of subjects. The IB Computer Science course is a rigorous and practical problem-solving discipline.

The IB DP computer science course requires an understanding of the fundamental concepts of computational thinking as well as knowledge of how computers and other digital devices operate.

The course, underpinned by conceptual thinking, draws on a wide spectrum of knowledge, and enables and empowers innovation, exploration and the acquisition of further knowledge.

Students study how computer science interacts with and influences cultures, society and how individuals and societies behave, and the ethical issues involved.

During the course the student will develop computational solutions. This will involve the ability to:

- Identify a problem or unanswered question.
- Design, prototype and test a proposed solution.
- Liaise with clients to evaluate the success of the proposed solution and make recommendations for future developments.

Core topics covered include the following mandatory topics: system fundamentals, computer organization, networks, computational thinking, problem-solving and programming. One optional topic chosen from the following: databases, modeling and simulation, web science, and object-oriented programming (OOP) is requested as well. Computer science has links with subjects outside of Group 4, notably "Digital Society" . "Digital Society" is about how people are affected by systems already in use and those planned for the future. However, Computer science emphasizes a detailed understanding of the logic and internal workings of a system.

The aims of the Computer Science course are to:

- Provide opportunities for study and creativity within a global context that will stimulate and challenge students developing the skills necessary for independent and lifelong learning.
- Provide a body of knowledge, methods and techniques that characterize Computer Science
- Enable students to apply and use a body of knowledge, methods and techniques that characterize Computer Science
- Develop logical and critical thinking as well as experimental, investigative and problem-solving skills
- Develop and apply the students' information and communication technology skills in the

study of Computer Science to communicate information confidently and effectively

Career paths:

Computer Science is one of those subjects which can open a number of different career paths, such as in Cyber security, Computer Networking, Telecommunication, Bio-Technology, Biometrics, Ecommerce, Database Management, Mobile Computing, Internet Technology and many more. This is because it provides a foundation upon which we can better understand the world of technology around us.

Curriculum Model Overview

Standard Level (SL)			
Paper 1- Topics 1 to 4 *Section A- Consists of several compulsory short answer questions* *Section B- Consists of several compulsory structured questions*	Paper 2- Option *An examination paper between three and seven compulsory questions linked to the option studied*	Internal Assessment CourseWork *Report of the development of a computational solution to a real Client*	
45%	25%	30%	
Higher Level (HL)			
Paper 1- Topics 1 to 4 *Section A- Consists of several compulsory short answer questions* *Section B- Consists of several compulsory structured questions*	Paper 2- Option *An examination paper between three and seven compulsory questions linked to the option studied*	Paper 3 -Based on a Case Study *An examination paper consisting of four compulsory questions based on a pre-seen case study*	Internal Assessment CourseWork *Report of the development of a computational solution to a real Client*
40%	20%	20%	20%

Components

Standard Level (SL)	Higher Level (HL)
Core Syllabus: SL/HL Core • Topic 1: System fundamentals • Topic 2: Computer organization • Topic 3: Networks • Topic 4: Computational thinking, problem-solving & programming	
	HL extension (For HL Only) • Topic 5: Abstract data structures • Topic 6: Resource management • Topic 7: Control Case study
	Case Study
Option: SL/HL Students study one of the following options: • Option A: Databases • Option B: Modeling and simulation • Option C: Web science • Option D: Object-oriented programming (OOP) - this option is chosen by the teacher Internal assessment Solution Practical application of skills through the development of a product and associated documentation Group 4 project Additional subject content introduced by the annually issued case study	

Environmental Systems and Societies SL

Environmental Systems and Societies (ESS) is an interdisciplinary group 3 and 4 course that is offered only at standard level (SL). As an interdisciplinary course, ESS is designed to combine the methodology, techniques and knowledge associated with group 4 (sciences) with those associated

with group 3 (individuals and societies). ESS is a complex course, requiring a diverse set of skills from its students. It is firmly grounded in both a scientific exploration of environmental systems in their structure and function and in the exploration of cultural, economic, ethical, political, and social interactions of societies with the environment. As a result of studying this course, students will become equipped with the ability to recognize and evaluate the impact of our complex system of societies on the natural world.

Students take ESS for a variety of reasons. Those students with an interest in environmental sciences and systems where human and environmental interactions meet should consider ESS. Also, students who do not feel they wish to specialize too much in the sciences can take ESS as their science subject.

ESS acts as either Group 3 or Group 4 AND can fulfil the needs of both in the full Diploma Programme.

Assessment

Assessment component	Weighting %	Approximate weighting of objectives in each component (%)		Duration (hours)
		1 and 2	3	
Paper 1 (case study)	25	50	50	1
Paper 2 (short answers and structured essays)	50	50	50	2
Internal assessment (individual investigation)	25	Covers objectives 1, 2, 3 and 4		10

Physics (SL/HL)

"Physics is a tortured assembly of contrary qualities: of scepticism and rationality, of freedom and revolution, of passion and aesthetics, and of soaring imagination and trained common sense."

- *Leon M Lederman (Nobel Prize for Physics, 1988)*

The scientific processes carried out by the most eminent scientists in the past are the same ones followed by working physicists today and, crucially, are also accessible to students in schools. Early in the development of science, physicists were both theoreticians and experimenters (natural philosophers). The body of scientific knowledge has grown in size and complexity, and the tools

and skills of theoretical and experimental physicists have become so specialized 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 links between these fields.

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 to a modern scientific endeavour and are important life-enhancing, transferable skills in their own right.

The Diploma Programme physics course includes the essential principles of the subject but also, through the selection of an option, allows teachers some flexibility to tailor the course to meet the needs of their students. Higher level physics is relevant to university courses in physics, engineering or electronics, and would be useful to anyone wishing to study mathematics or science at a higher level. It encourages the student to think in a logical, consistent and mathematical way. Any of the mathematics courses IB Analysis SL, IB Analysis HL or IB Applications HL would be extremely useful, although not essential, for this course.

Distinction between SL and HL

Standard level physics has been specifically designed for the student who wishes to know more of the applications of physics, while still wanting to further their knowledge of the more "pure" aspects of the subject. The common core of the syllabus covers similar material to the higher level course although not in the same detail.

Assessment SL + HL

Component	Overall weighting (%)	Approximate weighting of objectives (%)		Duration (hours)
		1+2	3	
Paper 1	20	10	10	1
Paper 2	36	18	18	2¼
Paper 3	24	12	12	1¼
Internal assessment	20	Covers objectives 1, 2, 3 and 4		10

Group 5: Mathematics

The nature of mathematics can be summarized in a number of ways: for example, it can be seen as a well-defined body of knowledge, as an abstract system of ideas, or as a useful tool. For many people, it is probably a combination of these, but there is no doubt that mathematical knowledge provides an important key to understanding the world in which we live. Mathematics can enter our lives in a number of ways: we buy produce in the market, consult a timetable, read a newspaper, time a process, or estimate a length. Mathematics, for most of us, also extends into our chosen profession: visual artists need to learn about perspective; musicians need to appreciate the mathematical relationships within and between different rhythms; economists need to recognize trends in financial dealings; engineers need to take account of stress patterns in physical materials. Scientists view mathematics as a language that is central to our understanding of events that occur in the natural world. Some people enjoy the challenges offered by the logical methods of mathematics and the adventure in reason that mathematical proof has to offer. Others appreciate mathematics as an aesthetic experience or even as a cornerstone of philosophy. This prevalence of mathematics in our lives, with all its interdisciplinary connections, provides a clear and sufficient rationale for making the study of this subject compulsory for students studying the full diploma.

IB Mathematics: Analysis and Approaches

This course recognizes 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. The course allows the use of technology, as fluency in relevant mathematical software and hand-held technology is important regardless of choice of course. However, Mathematics: analysis and approaches has a strong emphasis on the ability to construct, communicate and justify correct mathematical arguments.

Distinction between SL and HL

Students who choose Mathematics: analysis and approaches at SL or HL should be comfortable in the manipulation of algebraic expressions and enjoy the recognition of patterns and understand the mathematical generalization of these patterns. Students who wish to take Mathematics: analysis and approaches HL will have strong algebraic skills and the ability to understand simple proof. They will be students who enjoy spending time with problems and get pleasure and satisfaction from solving challenging problems.[11]

IB Mathematics: Applications and Interpretation

This course recognizes the increasing role that mathematics and technology play in a diverse range

[11] IBO Subject Guide For Analysis and Approaches Mathematics.

of fields in a data-rich world. As such, it emphasizes the meaning of mathematics in context by focusing on topics that are often used as applications or in mathematical modeling. To give this understanding a firm base, this course also includes topics that are traditionally part of a pre-university mathematics course such as calculus and statistics.

The course makes extensive use of technology to allow students to explore and construct mathematical models. Mathematics: applications and interpretation will develop mathematical thinking, often in the context of a practical problem and using technology to justify conjectures.
Students who choose Mathematics: applications and interpretation at SL or HL should enjoy seeing mathematics used in real-world contexts and to solve real-world problems.
Students who wish to take Mathematics: applications and interpretation at higher level will have good algebraic skills and experience of solving real-world problems. They will be students who get pleasure and satisfaction when exploring challenging problems and who are comfortable to undertake this exploration using technology.

Distinction between SL and HL

Students who wish to take Mathematics: applications and interpretation at higher level will have good (efficient) algebraic skills and experience of solving real-world problems. They will be students who get pleasure and satisfaction when exploring challenging problems and who are comfortable to undertake this exploration using technology.[12] Students in the HL course will be required to work both with and without a calculator. Efficient algebra skills are imperative.

[12] IBO Subject Guide for Applications and Interpretations Mathematics

Group 6: The Arts

Visual Arts SL/HL

The Arts subjects offer students an opportunity to specialize in an arts subject, exploring it in depth while applying analytical techniques and research skills. At LAS, students can choose Visual Arts at higher level. It is also possible for students to switch a group 6 subject for another subject from groups 1 to 4.

Visual Arts

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

Supporting the International Baccalaureate mission statement and learner profile, the course encourages students to actively explore the visual arts within and across a variety of local, regional, national, international and intercultural contexts. Through inquiry, investigation, reflection and creative application, visual arts students develop an appreciation for the expressive and aesthetic diversity in the world around them, becoming critically informed makers and consumers of visual culture.

Assessment is through an exhibition of studio work completed at the end of IB2 plus submission of a Process Portfolio and a written comparative study of 3 artists.
Internal Assessment:

- Exhibition 40%

External Assessment:

- Comparative Study 20%
- Process Portfolio 40%

The assessment components are the same for SL and HL with an increased number of artworks required in the exhibition component and an additional section required in the Comparative Study for HL students.

The Core of the IB

CAS, TOK and the Extended Essay

Creativity, Activity, Service:

The Nature of CAS

The IBO's goal of educating the whole person and fostering more caring and socially responsible attitudes comes alive in an immediate way when students reach beyond themselves and their books. Creativity, activity, service (CAS) is at the heart of the IB Diploma Programme and is a requirement for the award of the IB. It involves students in a range of activities alongside their academic studies throughout the Diploma Programme.

CAS enables students to enhance their personal and interpersonal development through experiential learning. At the same time, it provides an important counterbalance to the academic pressures of the rest of the Diploma Programme. A good CAS plan should be balanced, challenging, enjoyable and a personal journey of self-discovery. Each student will have a different starting point, and therefore different goals and needs, but for many, CAS activities include experiences that are profound and life-changing.

Three Strands of CAS

There are three strands of CAS under which all experiences can be characterized as follows;

Creativity: Exploring and extending ideas leading to an original or interpretive product or performance

Activity: Physical exertion contributing to a healthy lifestyle

Service: Collaborative and reciprocal engagement with the community in response to an authentic need

Creativity	Activity	Service
Arts & Creative Writing	Individual/team sports	Habitat for Humanity
Musical performances	Mountain Biking	Community Service
Theatre Performances	Yoga & meditation	Village tutoring
Model United Nations	International Award	Eco Club
Yearbook Club	Skiing/Snowboarding	Green Machines

Band/Rock School	Mountaineering	Student Council
Makerspace	Skateboarding	Gardening
Photography	E-Sports	National Honor Society

The CAS Project

As a part of the CAS program students are required to partake in at least one CAS project throughout the 18 months of the IB Diploma. A CAS project is;

- something that fits in one of the C-A-S strands
- a collaborative, purposeful, substantial series of experiences
- a sustained collaboration of at least one month
- where students are responsible for initiating a part of or the whole project
- to have a defined purpose and goal
- almost anything you can imagine!

The CAS project is truly an opportunity to create something wonderful from the efforts of students and their collaborative team. Whichever strand the project falls under, students have the chance to participate in an experience that can be thoroughly productive, enjoyable and memorable. Most of all the learning possibilities through this experience are exceptional. This is experiential learning in its purest form.

Some examples of past CAS projects here at LAS include:

Spread a Smile is a charity brand and all the profit will be forwarded to Anouk Foundation.	The project is about teaching kids how to defend themselves using the martial art of Brazilian jiu-jitsu.	Ski and snowboard race for both LAS students and the people in town.
		

Theory of Knowledge:

Theory of knowledge (TOK) is a two-year course at LAS that plays a special role in the IB Diploma Programme. It provides an opportunity for students to reflect on the nature of knowledge, and to think about how we know what we claim to know. It is one of the components of the DP core and is mandatory for all IB Diploma students. The TOK requirement is central to the educational philosophy of the IB Diploma.

How is TOK Structured?

The IBO's goal of educating the whole person and fostering more caring and socially responsible attitudes comes alive when students reach beyond themselves and their books. TOK begins by asking students to think about how their personal knowledge is affected by the different "groups of knowers" they belong to - ranging from our families to our nations and our classes. Following this key theme, different TOK classes at LAS turn their attention to a variety of topics like the relationship between knowledge and language, the place of indigenous knowledge systems in a globalizing world, and the role of technology in shaping our worldviews. At the end of their first year, all TOK students present a TOK Exhibition - illustrating one or more of their favorite TOK topics in a museum-style exhibition of three physical objects. In their second year, all TOK students complete the TOK Essay - choosing one of six prescribed titles set by the IBO to assess their understanding of the course's key lessons. Unlike other IB subjects, there is no final TOK exam in a students' senior year.

In addition to the units normally covered by the IB's Theory of Knowledge curriculum, LAS students also take part in a TOK-themed cultural trip in their senior year. While there, students are encouraged to use their TOK skills to look at their host city from different perspectives - using History, Art, the Human Sciences, the Natural Sciences and Math to examine their surroundings.

How is TOK Assessed?

As explained above, TOK is assessed through a 950-word TOK Exhibition and a 1,600 word TOK Essay. The Exhibition assesses the ability of the student to consider some of the connections between three objects in the real world and the themes they've discussed in class.

The TOK Essay is based on one of six Prescribed Titles written by the IBO. For example, the essay may ask students to discuss the claims such as - "Accepting knowledge claims always involves an element of trust" or "Avoiding bias seems a commendable goal, but this fails to recognize the positive role that bias can play in the pursuit of knowledge." These claims are considered from a variety of perspectives using two of the IB's five Areas of Knowledge: the Arts, HIstory, Human Sciences, Natural Sciences and Mathematics.

What if I don't take the IBDP?

Fear not! You'll still get the chance to explore *how* you know what you know through LAS's *Foundations Of Learning & Knowledge* (FOLK) course. This provides all non-IB seniors with a one-year TOK experience, including participation in the Senior TOK Cultural Trips in the Fall term. LAS Seniors in the AP and LAS Diploma tracks are not required to submit their FOLK assessments to any external marking board.

Extended Essay:

The Extended Essay is a 4000 word research paper that is written by all Full IBDP students. The writing takes place between January of junior year and November of Senior year and is graded by IB examiners. Each student is assigned a supervisor for the EE who is a subject expert and will guide students through the process

The Extended Essay provides:

- Practical preparation for undergraduate research
- An opportunity for students to investigate a topic of personal interest to them, which relates to one of the student's six DP subjects, or takes the interdisciplinary approach of a World Studies extended essay.

Through the research process for the extended essay, students develop skills in:

- Formulating an appropriate research question
- Engaging in a personal exploration of the topic
- Communicating ideas
- Developing an argument.

Participation in this process develops the capacity to analyze, synthesize and evaluate knowledge.

Academic Honesty at LAS

We take academic honesty seriously and make our expectations clear to students through the school's social and academic regulations.

We believe that good study and social habits developed at LAS will serve as a foundation on which our graduates can build confident, courteous and successful lives. In the event that a student violates LAS values in their academic work, the following sanctions will be applied:

- First offense: A meeting with the Associate Dean of Preparatory Years. A letter is sent to the family and student. The student must also redo or repeat the assignment and may not receive full grades for their work.

- Second offense: A meeting with the Associate Dean of Preparatory Years. Additionally, a letter is sent home to the student's parents or guardians. The student must also redo or repeat the assignment and may not receive full grades for their work.

- Third offense: A meeting with the Associate Dean of Preparatory Years, a letter home to the student's parents or guardians and a one-week off-campus suspension. The student must also redo or repeat the assignment and may not receive full grades for their work. The Head of School can weigh further sanctions, including possible dismissal from LAS.

What does it take to be successful at LAS?

Learning to Challenge Yourself

Support is readily available to students at LAS, from the Associate Academic Deans and their staff to the dormitories and faculty families. Students should challenge themselves to push their limits and try new things. In their academics, students will be challenged and meeting that challenge is essential to success.

Finding Interests

Activities and sports at LAS offer a wide variety of opportunities. Making the most of these is essential to student's development as global citizens and in ensuring they have a balanced lifestyle in Leysin.

Making Friends

LAS is a community and lasting friendships between students from many parts of the world are a major part of why alumni return to visit years after they graduate.

Global Awareness

The international nature of the staff and students expose students to cultures and languages from 50 different countries. Cultural and service trips expose students to world issues and the role they play in a global society.

Focus on Earning Strong Qualifications

At LAS, you will be supported in your studies. Your aim should be to make the most of your opportunity. All we ask is that students reach for the stars and make the most of their ability and balance their lives to ensure they are healthy, happy and doing well in their classes. Strong qualifications will be of great benefit in applications to further education.

Preparing for Success After-LAS

Your university advising department will guide you in the process of applications and testing. It is essential for you to be thoughtful and aware of what makes you an excellent candidate for further education. If you prepare in advance through Grades 10 and 11, the process of applications becomes much easier.