



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

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



Source: www.ibo.org and IBO subject documentation

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Diploma Years Course Offerings

What are the options?

1. Full IB Diploma Programme
2. LAS Diploma with IB Courses
3. LAS Diploma with AP Courses
4. LAS Diploma – English Language Acquisition

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.

AP vs IB - 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 counsellors 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.

US High School Diploma – English Language Acquisition

At LAS non-native English speakers follow a sheltered-immersion program balancing language study with content study. Students focus on the four basic skills of writing competency, reading/literacy, listening comprehension and speaking. In this way, they gain a sense of international understanding and share their cultural backgrounds and languages. Students are placed using the Secondary Level English Proficiency (SLEP) 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 US high school diploma counterparts. ELA students are also enrolled in Theory of Knowledge (TOK), 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 levelling class sizes.*

Subject	IB Courses	AP* Courses	LAS Diploma Courses
English	English Language & Literature SL 1 & 2 English Language & Literature HL 1 & 2 English Literature HL 1 & 2		English 3 English 4
English Language Acquisition	English B SL 1 & 2 English B HL 1 & 2		Literature and Reading
Modern Foreign Languages	German <i>ab initio</i> 1 & 2 French <i>ab initio</i> 1 & 2 Spanish <i>ab initio</i> 1 & 2 French B SL 1 & 2 French B HL 1 & 2 Spanish B SL 1 & 2		Beginner French Intermediate French Beginner Spanish
Social Studies	Psychology SL 1 & 2 Global Politics SL 1 & 2 Geography SL 1 & 2 Business Management SL 1 & 2 Business Management HL 1 & 2 Geography HL 1 & 2 Economics HL 1 & 2 History HL 1 & 2	AP Macroeconomics AP Microeconomics	Geography Business & Marketing History of the United Nations History through Film
Science	Astronomy SL 1 & 2 Biology SL 1 & 2 Chemistry SL 1 & 2 Chemistry HL 1 & 2 Biology HL 1 & 2 Physics HL 1 & 2	AP Chemistry AP Physics	Integrated Lab Science Biology
Mathematics	Math Applications SL 1 & 2 Math Analysis SL 1 & 2 Math Applications HL 1 & 2 Math Analysis HL 1 & 2	AP Calculus AB AP Statistics	Applied Mathematics Statistics Pre-IB / AP Math
Fine & Performing Arts	Visual Arts HL 1 & 2		
Theory of Knowledge	Theory of Knowledge 1 & 2		Foundations of Learning and Knowledge (Gr 12)
LAS <i>edge</i> Courses			Alpine Institute Rock School Piano and Composition Guitar, Drum and Vocal

*Advanced Placement Courses are being introduced in the Academic Year 2020-21 in order to further enhance our



academic offerings.

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 and the Council for International Schools.

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 Maths, 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: American 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: 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. Organisation 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 (literature and/or 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 1-4

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



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 an American 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 be most successful, 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 courses may qualify 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.

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 American-style 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: 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 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 guidelines for admission to universities in certain countries:

Country of Study	Qualification Requirements for Admission
Australia	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Completion of IB Diploma strongly preferred or 3-5 AP courses • Can enter a Foundation year if the student does not have the IB Diploma/AP requirements
United States	<ul style="list-style-type: none"> • All three pathways are acceptable for admission
Canada	<ul style="list-style-type: none"> • IB Diploma preferred at selective institutions • When looking at student's transcript, often looking only at Grade 11 and 12 • Can apply with American High School Diploma with a combination of AP courses, IB certificates and/or SAT or ACT
Netherlands	<ul style="list-style-type: none"> • To be accepted to a Research University, students should be pursuing the full IB Diploma. • Students can apply to Applied Sciences schools with an American High School Diploma or American High School Diploma with IB Certificates
Switzerland (Cantonal or Federal Universities)	<ul style="list-style-type: none"> • Full IB Diploma • Please Note: IB Math SL Applications is not suitable for admission to cantonal or federal universities. • Possible to be accepted to other hotel management programs or business schools with American High School Diploma and AP courses, IB Certificates and/or SAT/ACT exam
Public Universities in Europe	<ul style="list-style-type: none"> • IB diploma preferred, however may be flexible with the LAS diploma with multiple AP courses. This is country-specific.
Private Universities in Europe	<ul style="list-style-type: none"> • Will often function like universities in the US in terms of their admissions requirements. Will like to see the AP/IB, but it is not necessary to gain admission.
Hotel/Business Schools	<ul style="list-style-type: none"> • Several highly selective hotel schools (such as EHL) or Business Schools (such as ESADE) are looking for 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 - even HL Math is preferred).



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.

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 school on their application list with their university advisor to ensure they are keeping track of specific requirements and deadlines for each individual school they are applying to!!**



LAS *edge* LAS Diploma Offerings

LAS edge (continuing students from 2019-20)

Students who have successfully completed the first year of *LAS edge* in grade 10 may continue one or more projects, individually or as a team, with the guidance of an *edge* teacher. Students learn self-organization and perseverance, applicable to any subject, in the context of a project in art, entrepreneurship, music, outdoor education, or STEAM.

LAS edge electives (open to everyone)

Alpine Institute (one elective credit)

Students interested in the Alps, environment science, climate crisis, and outdoor adventure are invited to develop projects using the wonderful location in and around Leysin. Students also work on the International Award, with the objective of attaining silver or gold status by the end of high school. As part of the *LAS edge* family of courses, an intentional course goal is teaching student agency. Students learn to plan and self-monitor as an exercise in being in charge of their own learning, a skill that transfers to any future class or endeavor. Grading is Pass/Fail only.

Piano and Music Composition (one elective credit)

Beginning piano students receive 50-50 instruction and practice time, intermediate and advanced students treat this course mainly as practice time, with frequent chances for feedback and performances. Students also experiment with musical composition, learning and/or applying just enough music theory to create original compositions for piano. As part of the *LAS edge* family of courses, an intentional course goal is teaching student agency. Students learn to plan and self-monitor as an exercise in being in charge of their own learning, a skill that transfers to any future class or endeavor. Grading is Pass/Fail only.

Rock School (one elective credit)

Do you play an instrument? Do you enjoy making music with a group? Your talents will add to the sound of the rock band, no matter your current level. There is time for both individual and group practice. As part of the *LAS edge* family of courses, an intentional course goal is teaching student agency. Students learn to plan and self-monitor as an exercise in being in charge of their own learning, a skill that transfers to any future class or endeavor. Grading is Pass/Fail only.

Guitar, Vocal, and Drum (one elective credit)

For all levels, students wishing to pursue guitar and drum set are invited to a course largely devoted to practice time, with mentoring from one of the leaders of LAS Rock School. As part of the *LAS edge* family of courses, an intentional course goal is teaching student agency. Students learn to plan and self-monitor as an exercise in being in charge of their own learning, a skill that transfers to any future class or endeavor. Grading is Pass/Fail only.



LAS Diploma Offerings

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 global issues, communication and media and social relationships. 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.

Beginner and Intermediate French

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.

Beginner German

Students coming into the Diploma Years Program can take a beginner German course. The course is designed to create a desire to learn a language as well as the technical skills involved.

Beginner Spanish

Students coming into the Diploma Years Program can take a beginner Spanish course. The course is designed to create a desire to learn a language as well as the technical skills involved.

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.

Business & Marketing

In Business & Marketing, you will develop a basic understanding of finance, accounting, and financial markets. Topics include financial statements, double-entry accounting, small business operation, and simple models used in financial decision-making such as time value of money equations. You will also get hands-on knowledge by planning and operating a temporary small business at LAS. This course is designed to give you a head-start if you are thinking of studying business or finance at university.



AP Microeconomics

AP Microeconomics is a university-level course that introduces students to the principles of economics that apply to the functions of individual economic decision-makers. 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.¹

AP Macroeconomics

AP Macroeconomics is a university-level course that introduces students to the principles that apply 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

Integrated Lab Science

Integrated 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 course's 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, hypothesising about and then investigating how some aspects of the studied ecosystem are related.

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.

¹ AP® Microeconomics COURSE AND EXAM DESCRIPTION Effective Fall 2019

² AP® Macroeconomics COURSE AND EXAM DESCRIPTION Effective Fall 2019



LEYSIN AMERICAN SCHOOL IN SWITZERLAND



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 Physics

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 maths 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.

Statistics

Statistics is a course for students in grade 12 who do not wish to enrol 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.

Applied Mathematics

Applied mathematics is a course for students in grade 11 who do not wish to enrol 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.

Pre-IB /AP Mathematics

This course is for students who are able to comfortably handle the content of Algebra 2 Extended and who demonstrate efficient algebra skills even in complex tasks. We are conscious that fostering curiosity and developing students' investigation and problem solving skills is vital and as such this course offers puzzling and challenging questions in pure mathematics. This course is for students in grade 11 who want to take an additional year to prepare for the two-year IBDP programme or for those students who wish to take AP Calculus instead of IB Mathematics in grade 12. Every year students complete at least one investigation that draws on their lesson content and challenges them to investigate and communicate their findings mathematically. This is great preparation for both the AP and IB Diploma Programme and it gives students a sense of what it means to write about mathematics.

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 Statistics

This course is offered to students who have successfully completed the Algebra 2 Extended course (or equivalent) and have the recommendation from their teacher. The AP Statistics course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. There are four themes evident in the content, skills, and assessment in the AP Statistics course: exploring data, sampling and experimentation, probability and simulation, and statistical inference. Students use technology, investigations, problem solving, and writing as they build conceptual understanding. The AP Statistics course is equivalent to a one-semester, introductory, non-calculus-based college course in statistics. (AP Central College Board website for AP Statistics.)



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	Hiking & Outward bound	Community Service
Theatre Performances	Yoga & meditation	Village tutoring
Model United Nations	International Award	Eco Club
Yearbook Club	Skiing/Snowboarding	Sethule Trust Charity
Band/Rock School	Mountain climbing	Student Council
Event Planning Club	Rowing Club	Gardening
Photography	Dance	National Honors 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:

Multi-cultural cooking club to create a recipe book with original and translated recipes.



Fundraising basketball tournament to finance construction of a school toilet in Nigeria.



Teaching English to disadvantaged young offenders in Ukraine.





Subject Areas and Details

Group 1 Language A

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

All three 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.

Both the language A: literature course and the language A: language and literature course are 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.



Language A: Literature

Students will focus exclusively on literary texts, adopting a variety of approaches to textual criticism. Students explore the nature of literature, the aesthetic function of literary language and textuality, and the relationship between literature and the world.

The course is centered around three core components:

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

The model for language A: 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 9 texts, while HL students are required to study 13.

In paper 1 (literary analysis), both SL and HL students are presented with two previously unseen literary extracts or texts from different literary forms, 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 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 literary text or work. The outcome is an essay of 1,200–1,500 words in which HL students are expected to demonstrate a deeper understanding of the nature of literary study.

In the language A: literature course, students will learn about the various manifestations of literature as a powerful mode of writing across cultures and throughout history. They will explore and develop an understanding of factors that contribute to the production and reception of literature, such as:

- the creativity of writers and readers
- the nature of the interaction with the writers' and readers' respective contexts and with literary tradition
- the ways in which language can give rise to meaning and/or effect
- the performative and transformative potential of literary creation and response.

Through close analysis of literary texts in a number of forms and from different times and places, students will consider their own interpretations, as well as the critical perspectives of others. In turn, this will encourage the exploration of how viewpoints are shaped by cultural belief systems and how meanings are negotiated within them. Students will be involved in processes of critical response and creative production, which will help shape their awareness of how texts work to influence the reader and how readers open up the possibilities of texts. With its focus on literature, this course is particularly concerned with developing sensitivity to aesthetic uses of language and empowering students to consider the ways in which literature represents and constructs the world and social and cultural identities.



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—that at LAS are offered in English, French, German, and Spanish. Language ab initio and language B 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 Language B 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.

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

English is available at both SL and HL levels.

Spanish is available at Ab initio and SL levels.

German 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, analyse 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 analyse 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, Spanish, and German

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

History, Economics, Business Management, Global Politics and Geography

History (HL)

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 of the prescribed subjects which are assessed through a source based examination paper. The prescribed subjects are:

- Military leaders
- Conquest and its impact
- The move to global war
- Rights and protest
- Conflict and intervention

All students will also explore two key topics in world history. These will be chosen from:

Origins, development and impact of industrialization (1750–2005)

- Independence movements (1800–2000)
- Evolution and development of democratic states (1848–2000)
- Authoritarian states (20th century)
- Causes and effects of 20th-century wars
- The Cold War: Superpower tensions and rivalries (20th century)

In addition, HL students will study one of four regional options:

- History of Africa and the Middle East
- History of the Americas
- History of Asia and Oceania
- History of Europe

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



Economics (HL/SL)³

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.

The 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, 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.

³ Taken from IBO Economics Guide, first assessment 2022



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 extracts. Maximum 800 words for each commentary (45 marks)	30%	20%



Geography (HL/SL)⁴

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.

Assessment:	SL	HL
Paper 1 (1 hour 30 minutes) Geographic themes—two options (40 marks)	35%	35%
Paper 2 (1 hour 15 minutes) Geographic perspectives—global change (50 marks)	40%	25%
Paper 3 (1 hour) Geographic perspectives—global interactions (28 marks)	N/A	20%

⁴ Taken from IBO Geography Guide, updated November 2019



Internal assessment (20 hours) This component is internally assessed by the teacher and externally moderated by the IB at the end of the course. Fieldwork (20 hours) Written report (25 marks)	25%	20%
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Global Politics (SL)

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 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 emphasised 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.

External Assessment

2 exams of document based and essay style questions.

Internal Assessment

Students undertake an engagement through which they explore a political issue of personal interest experientially. They then produce a written report, in which they explain what they learned about the political issue through the engagement, and analyse and evaluate the issue, supported by additional complementary research.



Business Management⁵

Business management is a rigorous, challenging and dynamic discipline in the individuals and societies subject group. The role of businesses, as distinct from other organizations and actors in a society, is to produce and sell goods and services that meet human needs and wants by organizing resources. Profit Making, risk-taking and operating in a competitive environment characterize most business organizations.

Although business management shares many skills and areas of knowledge with other humanities and social sciences, it is distinct in a number of ways. For example business management is the study of decision making within an organization, whereas economics is the study of scarcity and resource allocation, both on micro and macro levels. Business management examines the use of information technology in business contexts, whereas information technology in a global society (ITGS) critically examines its impact on other fields, such as health and government.

Business management studies business functions, management processes and decision-making in contemporary contexts of strategic uncertainty. It examines how business decisions are influenced by factors internal and external to an organization, and how these decisions impact upon its stakeholders, both internally and externally. Business management also explores how individuals and groups interact within an organization, how they may be successfully managed and how they can ethically optimize the use of resources in a world with increasing scarcity and concern for sustainability. Business management is, therefore, perfectly placed within the individuals and societies subject area: aiming to develop in students an appreciation both for our individuality and our collective purposes.

The Diploma Programme business management course is designed to develop students' knowledge and understanding of business management theories, as well as their ability to apply a range of tools and techniques. Students learn to analyse, discuss and evaluate business activities at local, national and international levels. The course covers a range of organizations from all sectors, as well as the socio-cultural and economic contexts in which those organizations operate.

Emphasis is placed on strategic decision-making and the operational business functions of human resource management, finance and accounts, marketing and operations management. Links between the topics are central to the course, as this integration promotes a holistic overview of business management. Through the exploration of six concepts underpinning the subject (change, culture, ethics, globalization, innovation and strategy), the business management course allows students to develop their understanding of interdisciplinary concepts from a business management perspective.

The course encourages the appreciation of ethical concerns, as well as issues of corporate social responsibility (CSR), at both a local and global level. Through the study of topics such as human resource management, organizational growth and business strategy, the course aims to develop transferable skills relevant to today's students. These include the ability to: think critically; make ethically sound and well-informed decisions; appreciate the pace, nature and significance of change; think strategically; and undertake long term planning, analysis and evaluation. The course also develops subject-specific skills, such as financial analysis.

⁵ Taken from IBO Business Management Guide, First assessment 2016



Assessment:	SL	HL
Paper 1 (1 hour and 15 minutes) Based on a case study issued in advance, with additional unseen material for section B. Assessment objectives 1, 2, 3, 4 (40 marks) Section A Syllabus content: Units 1–5 Students answer two of three structured questions based on the pre-seen case study. (10 marks per question) Section B Syllabus content: Units 1–5 Students answer one compulsory structured question primarily based on the additional stimulus material. (20 marks)	30%	35%
Paper 2 (1 hour and 45 minutes) Assessment objectives 1, 2, 3, 4 (50 marks) Section A Syllabus content: Units 1–5 Students answer one of two structured questions based on stimulus material with a quantitative focus. (10 marks) Section B Syllabus content: Units 1–5 Students answer one of three structured questions based on stimulus material. (20 marks) Section C Syllabus content: Units 1–5 Students answer one of three extended response questions primarily based on two concepts that underpin the course. (20 marks).	45%	40%
Internal assessment (15 teaching hours) Written commentary Students produce a written commentary based on three to five supporting documents about a real issue or problem facing a particular organization. Maximum 1500 words. (25 marks)	25%	N/A
Internal assessment (30 teaching hours) Research project Students research and report on an issue facing an organization or a decision to be made by an organization (or several organizations). Maximum 2000 words. (25 marks)	N/A	25%



Group 4: Experimental Sciences

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

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.

The 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	$\frac{3}{4}$
Paper 2	40	20	20	$1\frac{1}{4}$
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	$2\frac{1}{4}$
Paper 3	24	12	12	$1\frac{1}{4}$
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.

The 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 Assessment

Component	Overall weighting (%)	An approximate weighting of objectives (%)		Duration (hours)
		1+2	3	
Paper 1	20	10	10	3¼
Paper 2	40	20	20	1¼
Paper 3	20	10	10	1
Internal assessment	20	Covers objectives 1, 2, 3 and 4		10

Physics 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.

At LAS, Physics is offered as an HL course only. Students wishing to take a similar course at SL level should consider Astronomy.

Assessment 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

Astronomy SL

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.

Assessment

Assessment component	Weighting %	Duration (hours)
Paper 1	30	3/4
Paper 2	50	1 1/2
Internal Assessment	20	10

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



LEYSIN AMERICAN SCHOOL IN SWITZERLAND



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: Applications and Interpretation

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

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.

The 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.⁶ Students in the HL course will be required to work both with and without a calculator. Efficient algebra skills are imperative.

⁶ IBO Subject Guide for Applications and Interpretations Mathematics



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.

The 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.⁷

⁷ IBO Subject Guide For Analysis and Approaches Mathematics.



Group 6 The Arts

Visual Art 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 Art

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%

LAS edge Courses (open to everyone)

Piano and Music Composition

Beginning piano students receive 50-50 instruction and practice time, intermediate and advanced students treat this course mainly as practice time, with frequent chances for feedback and performances. Students also experiment with musical composition, learning and/or applying just enough music theory to create original compositions for piano. As part of the LAS edge family of course, an intentional course goal is teaching student agency. Students learn to plan



and self-monitor as an exercise in being in charge of their own learning, a skill that transfers to any future class or endeavor. Grading is Pass/Fail only.

Rock School

Do you play an instrument? Do you enjoy making music with a group? Your talents will add to the sound of the rock band, no matter your current level. There is time for both individual and group practice. As part of the LAS *edge* family of courses, an intentional course goal is teaching student agency. Students learn to plan and self-monitor as an exercise in being in charge of their own learning, a skill that transfers to any future class or endeavor. Grading is Pass/Fail only.

Guitar, Vocal, and Drum

For all levels, students wishing to pursue guitar and drum set are invited to a course largely devoted to practice time, with mentoring from one of the leaders of LAS Rock School. As part of the LAS *edge* family of courses, an intentional course goal is teaching student agency. Students learn to plan and self-monitor as an exercise in being in charge of their own learning, a skill that transfers to any future class or endeavor. Grading is Pass/Fail only.



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.