

# *Lower Merion School District*



## *The International Baccalaureate Diploma Program*

Revised September, 2017

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## ***Background***

The International Baccalaureate Program is a comprehensive and rigorous two-year curriculum for high school students beginning in the junior year. Based on the educational pattern of no single country, it is the deliberate compromise between the specialization required in some national systems and the breadth preferred in others. The general objectives of the International Baccalaureate are to provide students with a balanced education, to facilitate geographic and cultural mobility, and to promote international understanding through a shared academic experience.

The Diploma Program requires a comprehensive and integrated study in six subject areas, an extended essay (4,000 word thesis of original research), the Theory of Knowledge course, and CAS (Creativity, Activity, and Service to the community). The last three components link the academic studies to broader learning experiences, educating the whole person. In the more than 50 years since its founding, the IB Program has become a symbol of academic integrity and intellectual promise. The student who satisfies its demands demonstrates a strong commitment to learning, both in the mastery of subject content and in the development of the skills and discipline necessary for success in a competitive world.

The International Baccalaureate (IB) is headquartered in Geneva, with Global Centers in Bethesda, Den Haag, and Singapore. The Global Centers are supported by additional regional offices in Vancouver and Buenos Aires and a global assessment center in Cardiff. Only schools that are officially approved by the International Baccalaureate are authorized to offer the curriculum and present candidates for examinations leading to a diploma. There are 3,092 schools offering the Diploma Program in approximately 150 countries with 894 in the United States, in both public and private schools. In 1998 the Lower Merion School District began the long application process to be authorized to offer the IB Diploma Program, to be located at Harriton High School. In July of 2000, the International Baccalaureate officially authorized Harriton High School to implement the program, and IB courses began instruction in September of 2001.

The IB Program is available for all 11<sup>th</sup> and 12<sup>th</sup> grade students who reside in the Lower Merion School District. This district-wide program is housed at Harriton High School.

## ***Theory and Philosophy***

### **THE MISSION STATEMENT OF THE INTERNATIONAL BACCALAUREATE**

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

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

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

## THE IB LEARNER PROFILE

Developed in 2006 and revised in 2013, the IB Learner Profile is the mission statement of the IB translated into a set of learning outcomes:

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.

As IB learners we strive to be:

<u>Inquirers</u>	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.
<u>Knowledgeable</u>	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.
<u>Thinkers</u>	We use critical and creative thinking skills to analyse and take responsible action on complex problems. We exercise initiative in making reasoned, ethical decisions.
<u>Communicators</u>	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.
<u>Principled</u>	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.
<u>Open-minded</u>	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.
<u>Caring</u>	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.
<u>Risk-takers</u>	We approach uncertainty with forethought and determination; we work independently and cooperatively to explore new ideas and innovative strategies. We are resourceful and resilient in the face of challenges and change.
<u>Balanced</u>	We understand the importance of balancing different aspects of our lives—intellectual, physical, and emotional—to achieve well-being for ourselves and others. We recognize our interdependence with other people and with the world in which we live.
<u>Reflective</u>	We thoughtfully consider the world and our own ideas and experience. We work to understand our strengths and weaknesses in order to support our learning and personal development.

The IB Learner profile represents 10 attributes valued by IB World Schools. We believe these attributes, and others like them, can help individuals and groups become responsible members of local, national and global communities.

## THE DIPLOMA PROGRAM MODEL



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At the center of the DP Model is the student, surrounded by concentric circles that represent the philosophy, experiences, and subject matters that form the basis of the Diploma Program experience.

### PROFILE OF AN INTERNATIONAL BACCALAUREATE STUDENT

The IB Diploma Program consists of a rigorous pre-university curriculum, leading to examinations, which meets the needs of highly motivated students. Participants are expected to complete curricula and assessment activities that are coordinated and evaluated by international assessors and are measured against pre-established, international standards.

The successful International Baccalaureate student should...

- be self-motivated;
- have the desire to challenge him/herself intellectually and academically;
- have the ability to articulate effectively;
- have international interests;
- possess analytical and critical thinking skills;
- possess or be willing to acquire good time management skills;
- be open to new ideas and tolerant of different beliefs;
- participate in school and community activities;
- possess a willingness to share and cooperate;
- have the ability to synthesize;
- have broad interests.

Of course, not every student possesses each of these characteristics. The highly motivated student who possesses or is willing to acquire these traits would be a good candidate for the IB Program.

The Lower Merion School District offers many academic programs, each suited to meet the needs of various types of students. Consequently, it should be noted that the IB Program is not intended nor designed to be the best program for all students. Students who are highly motivated and have a history of academic success should seriously consider the IB Program. Because of the internationally established criteria for success, students will be challenged and students failing to meet expectations will earn poor or failing grades. Assessment is based on internally evaluated activities and externally assessed exams and is required of all participants; IB teachers will not be able to “water down” course content or slow down the instructional pace for those students who are unprepared for the rigor of the program. Though one does not have to be a straight-A or gifted student in order to be successful, demonstrated academic success, a high degree of motivation, and effective time management skills are important assets.

## *Program Details*

### **DIPLOMA REQUIREMENTS**

The IB Diploma is earned when a student successfully completes the 6 required IB courses and the 3 required Core components.

#### **Required Courses**

Students must select one course from each of the following six IB subject groups:

#### **Group 1: Studies in Language and Literature**

An in-depth study of literature in the student’s native language. Most Students will take English A: Literature to satisfy this requirement. Native speakers of other languages may fulfill this requirement through a self-taught option.

#### **Group 2: Language Acquisition**

The study of a second language. The following classes will satisfy this diploma requirement: Spanish B (an advanced Spanish course), French B (an advanced French course), Latin (an advanced Latin course), Spanish *ab initio* (an introductory course for beginning Spanish students), French *ab initio* (an introductory course for beginning French students).

#### **Group 3: Individuals and Societies**

There are three courses offered within this group: History of the Americas, Psychology, and Economics. Because all students must take American History as a graduation requirement, History of the Americas will be required. Students may select Psychology or Economics as their elective course (see below).

#### **Group 4: Sciences**

Students may select Biology, Chemistry, or Physics.

#### **Group 5: Mathematics**

Students may select either Mathematical Studies or Mathematics.

#### **Group 6: The Arts and Electives**

Students may select either Music, Visual Arts, Theatre, or an additional course in one of the above groups (Psychology, Economics or a second science; a second Language B is unlikely to fit in the student’s schedule as the three languages are often scheduled concurrently).

All IB Diploma candidates are required to complete one subject from each group. At least three but not more than four of the six subjects are taken at the Higher Level, the others at the Standard Level. Higher and Standard Levels are IB classifications that describe the level of depth and breadth of the course. The level of rigor is typically the

same but the Higher Level courses are two-year courses while many Standard Level courses are one-year courses. See page 8 for further discussion. Students are assessed primarily by external examinations which are taken at the same time (November or May) throughout the world. Worldwide, there are more than 4,000 examiners who participate in the assessment of student work. Each student is graded on a scale of 1 to 7 in each subject. A minimum total of 24 points in the six academic subjects plus the satisfactory completion of the Core Elements are required to earn the diploma. In general, a higher grade in one course may be used to compensate for a lower grade in another course, though there are some exceptions to this rule.

The Mission Statement and the Learner Profile form the common philosophical thread that runs through each course and connects the academic experience with the elements of the curricular Core described below.

### **Core Element #1: CAS (Creativity, Activity, Service)**

CAS is the “heart” of the IB Program. The CAS requirement emphasizes the importance of life outside of the world of scholarship, providing a fresh counterbalance to the academic self-absorption some may feel within a demanding school program. All IB students are expected to generate their own unique CAS portfolios of activities in the areas of creativity, activity, and service.

The portfolios must demonstrate that the student has achieved all of the seven key learning outcomes:

- identify own strengths and develop areas for growth;
- demonstrate that challenges have been undertaken, developing new skills in the process
- demonstrate how to initiate and plan a CAS experience
- show commitment to and perseverance in CAS experiences
- demonstrate the skills and recognize the benefits of working collaboratively
- demonstrate engagement with issues of global significance
- recognize and consider the ethics of choices and actions

To accomplish this, students will be provided a variety of resources. All CAS experiences require preapproval by the CAS Supervisor. It is expected that all students reflect at least three times during each experience. Although students’ experiences should be divided approximately evenly between creativity, activity, and service, CAS is not a mere hour-counting exercise. All CAS activities must center on real, purposeful activities with significant outcomes. They must provide personal challenge that extends the student and is achievable in scope. CAS activities must involve thoughtful consideration such as investigating, preparing, acting, demonstrating and reflecting, and each activity must include opportunity for reflection on outcomes and personal learning.

What does CAS look like?

- Creativity includes arts and other experiences that allow for creative thinking and problem-solving. This can cover a wide range of planning, designing, and implementation of service projects as well as active participation in live cultural performances or helping to support the arts.
- Activity involves physical exertion contributing to a healthy lifestyle. Activity may include participation in hiking expeditions, individual or team sports, yoga class, walkathons, or projects to fight urban blight.
- Service is an unpaid and voluntary exchange that has a learning benefit for the student and respects the rights, dignity and autonomy of all those involved. Getting involved with organizations such as BuildOn, Philadelphia Cares, Reading for the Blind and Dyslexic or Jared’s Box may help a student fulfill the service component of CAS.

All students should be involved in some CAS activities that they have initiated themselves; other activities may be initiated by the school or an outside organization. Students must plan at least one CAS project involving collaboration that integrates two or more strands of CAS and is one month in duration from the initial investigation phase to the final demonstration and reflection.

CAS credit will not be awarded for any activity that is required in order to earn the IB diploma, for any form of filial duty or religious devotion or for compensated time (in money or benefit-in-kind). The CAS experience should raise awareness that one person can make a difference in the lives of others.

### **Core Element #2: The Extended Essay**

The Extended Essay is one of the central elements of the IB Diploma Program, sharing the same goals as CAS and the Theory of Knowledge course. The Extended Essay, an original research paper of no more than 4000 words, provides the student with the opportunity to intensify his/her attention on an area of particular interest. The student is encouraged to draw the connections between that which is studied in an academic environment and that which can be explored through one's own means of investigation and expository writing.

The process should begin early in the junior year. The student should consider a variety of topics and engage in some cursory research, verifying the accessibility of adequate material and ascertaining a continued interest in the topic. Advised by a faculty mentor, the student will research the topic, draft a proposal, outline his/her paper, submit a rough draft, revise it, and polish a final piece for submission to the International Baccalaureate Organization. The final paper will be due in December of the senior year.

### **Core Element #3: Theory of Knowledge**

The primary intent of Theory of Knowledge is to analyze the processes by which we acquire knowledge and the lenses through which we view it. Inherent within such study is the need to examine the biases associated with our sources of knowledge, the procedures utilized to gain knowledge within the specific disciplines, the assumptions that form the foundations of our knowledge and our methods of gaining it, and the ethical and philosophical ramifications of what we know and how we know it. As these metacognitive explorations require substantial probing and self-examination, students will be actively engaged in many reflective experiences. The course will involve class discussion in small and large groups, presentations, debates, role-playing activities, writing assignments, and research. Students should expect to take an active role in class activities and to stretch their conventional understanding of almost every issue raised in class as well as the conventions through which they are accustomed to addressing such issues.

IB juniors engage in an introduction to "TOK thinking" by discussing a variety of complex, contemporary issues. Seniors take a formally taught class that builds on these skills. The TOK course explores the primary Ways of Knowing (sense perception, language, reason, emotion, intuition, imagination, faith, and memory) and their role in our understanding of the world around us (Areas of Knowledge). The students' exploration of each will integrate the material studied in other IB courses as well as supplementary readings as they address the following questions, among others:

- How certain can we be of what we claim to know? What kinds of knowledge provide more certainty than others?
- What methods are there of verifying what we take to be true? Are they all equally convincing? Could there be a single, universal method of verification?
- What counts as a good reason?
- To what extent does personal or ideological bias influence our knowledge claims? To what extent do such pre-dispositions help us to clarify our understanding of the world?
- What are the limitations of knowledge? How can we attempt to overcome them?

Theory of Knowledge, the intellectual centerpiece of the IB Diploma Program, encourages students to make important curricular and global connections and to stretch their understanding of themselves and the thinking process.

## JUNIOR AND SENIOR YEAR COURSES

### **Eleventh Grade Courses** (SL=standard level course; HL=higher level course)

**Group 1:** Language A—English A: Literature HL (Part 1) or Language A SL self-taught, for native speakers of a language other than English. Self-taught Language A students will normally fulfill the Language B requirement with English B HL

**Group 2:** Language B, *ab initio*, Latin (World Language)

Students should enroll in Spanish B SL (part 1), French B SL (part 1), Latin SL (part 1), Spanish *ab initio* SL (part 1), or French *ab initio* SL (part 1). English Language Learners should enroll in English B HL (part 1) Languages *ab initio* are reserved for students who have had a *maximum* of one prior year of high school study of the language. IB Spanish and French classes are combined with other classes; please see the notes on languages on page 8 for sequencing.

**Group 3:** Individuals and Societies—History of the Americas HL (Part 1)

**Group 4:** Sciences

Chemistry SL, Chemistry HL (Part 1), Biology SL, Biology HL (Part 1), Physics SL (Part 1), or Physics HL (Part 1)

**Group 5:** Mathematics

Mathematical Studies SL (Part 1), Mathematics SL (Part 1), or Mathematics HL (Part 1)

Though standard level courses, Mathematical Studies SL and Mathematics SL will be offered over a two-year period.

**Group 6:** Arts or Elective (IB elective courses will be available for non-IB students as well.)

Music SL, Music HL (Part 1), Visual Arts SL, Visual Arts HL (Part 1), Theatre SL, Theatre HL (part 1), Psychology SL, Psychology HL (Part 1), Economics SL, or Economics HL (Part 1). A second science class will also satisfy the elective requirement. Students electing to take 2 IB sciences should assure that one of the two sciences is a 1-year course. Courses will be offered according to enrollment.

**Core:** IB Core

In addition to the above requirements, most students will have an additional opportunity to schedule a non-IB elective class; students may choose to take any other course offered at Harriton., subject to the design of the master schedule. Consistent with state mandate, all students will be required to take a physical education class as well.

IB Core is a class that engages the students in the CAS and Extended Essay components of the Diploma Program as well as an introductory Theory of Knowledge experience. It is scheduled once per cycle or through Lunch and Learn when the student's schedule does not permit otherwise.

All courses are subject to minimum enrollment requirements. Courses for which enough students do not register to warrant the teaching of the class will be cancelled.

### **Twelfth Grade Courses**

**Group 1:** Language A—English A: Literature HL (Part 2) or Language A: Literature self-taught SL.

**Group 2:** Language B, *ab initio*, Latin (World Language)

Students should enroll in Spanish B SL (part 2), French B SL (part 2), Latin SL (part 2), Spanish *ab initio* SL (part 2), or French *ab initio* SL (part 2). English Language Learners should enroll in English B HL (part 2) IB Spanish and French classes are combined with other classes; please see the notes on languages on page 8 for sequencing.

**Group 3:** Individuals and Societies—History of the Americas HL (Part 2)

**Group 4:** Sciences (only for students studying Science at the higher level or Physics SL)

Chemistry HL (Part 2), Biology HL (Part 2), Physics HL (Part 2), or Physics SL (Part 2).

**Group 5:** Mathematics

Mathematical Studies SL (Part 2), Mathematics SL (Part 2), or Mathematics HL (Part 2)

**Group 6:** Arts or Elective (only for students taking their elective at the higher level)

Music HL (Part 2), Visual Arts HL (Part 2), Theatre HL (part 2) Economics HL (Part 2), Psychology HL (Part 2). Students electing to take 2 IB sciences should assure that one of the two sciences is a 1-year course.

**Core:** Theory of Knowledge and IB Senior Project



Students continue their engagement in the Diploma Program's core elements through the Theory of Knowledge class and IB Senior Project, which includes CAS and the Extended Essay. IB Senior Project meets once per cycle or through Lunch and Learn when the student's schedule does not permit otherwise.

In addition to the above requirements, most students will have an additional opportunity to schedule a non-IB elective class during their senior year; students may choose to take any other course offered at Harriton, subject to the design of the master schedule. Because Physics SL is a two-year obligation, unlike the other standard-level science classes, students enrolled in Physics SL are unlikely to have an unscheduled period. This should be considered when scheduling US Government, a graduation requirement.

### **Higher Level and Standard Level Courses**

All students must study 3-4 courses at the higher level and 2-3 courses at the standard level. English A and History of the Americas are required higher level classes for native speakers of English. English B and History of the Americas are required higher level classes for English Language Learners. The third higher level class may be selected from the student's science, math, or elective courses. Students may take 4 higher level courses if one of them is Mathematics HL.

Language A: Literature self-taught is a standard level course. Note that self-taught Language A courses are not Lower Merion School District courses, are not graded, do not appear on official transcripts, and do not yield credit for graduation. Students will be required to secure copies of the literature.

Some standard level courses are taught over one year; all higher level courses are taught over two years. Higher level courses are not more difficult than standard level courses; they simply last longer. The following standard level courses are taught over two years: Mathematical Studies SL, Mathematics SL, Spanish *ab initio* SL, French *ab initio* SL, Physics SL, Language A: Literature SL (self-taught).

All IB students are required to take at least one SL course that is taught over two years.

### **The IB Senior Project**

Completing a Senior Project is a requirement for graduation from Lower Merion School District's high schools. The combination of CAS, the Extended Essay, a brief reflection paper on their IB experience, and an exit interview will satisfy this requirement for IB students. CAS, the Extended Essay, and Theory of Knowledge are accomplished through the IB Core, IB Senior Project, and Theory of Knowledge classes.

### **Notes about languages (groups 1 and 2)**

- All students are required to study in two languages. For American students, this typically is English A and a Language B, *ab initio*, or Latin. However, international students whose mother tongue is not English are likely to follow an alternate path to fulfilling the groups 1 and 2 requirements. Consistent with its mission statement, the IB has espoused a policy on mother tongue entitlement: Due to the intricate interconnectedness of language, culture, heritage, and identity, we strongly believe that students should study the literature (and thereby, culture) of their mother tongue. This is achieved through the Language A self-taught program (group 1), in which students follow a curriculum of literary study independently, with the support of the school. Students who have not acquired English to the level necessary for success in English A must pursue the self-taught option in their mother tongue to fulfill the group 1 requirement and will study English B for the group 2 requirement. Students who are completely bilingual are encouraged to take both English A and the self-taught Language A option. Two Languages A satisfy both the groups 1 and 2 requirements and may lead to the award of the IB Bilingual Diploma.
- Many IB Spanish and French classes are combined with Harriton's classes. Following are the potential sequences:
  - Language *ab initio* is available *only* to students who have had a maximum of *one* year of study in that language in high school. The only exceptions are sophomores in Intermediate Spanish and Spanish or French 2 College Prep. Therefore, a student's *ab initio* curriculum could be level 1H followed by 2H or 2H followed by 3H. Students in Intermediate Spanish or Spanish/French 1 College Prep in 10<sup>th</sup> grade

may take 2 College Prep followed by 2H. Students in Spanish/French 2 College Prep in 10<sup>th</sup> grade may take Spanish 2H followed by Spanish 3H.

- Depending on the language level of the student in 10<sup>th</sup> grade, Spanish or French B could culminate either at level 4H or in a 5<sup>th</sup> year course. Note that only seniors will be able to conclude Language B at the 4H level; juniors in 4H must take the fifth year course in order to complete the Language B requirement.

The following chart summarizes the Spanish and French sequences that are available:

10 <sup>th</sup> grade	11 <sup>th</sup> grade	12 <sup>th</sup> grade
3H, 4 College Prep	4H (Language B part 1)	Language B part 2
2H, 3 College Prep	3H (Language B part 1)	4H (Language B part 2)
No language or planning to change language	1H ( <i>ab initio</i> part 1)	2H ( <i>ab initio</i> part 2)
1H, 2 College Prep	2H ( <i>ab initio</i> part 1)	3H ( <i>ab initio</i> part 2)
1 College Prep, Intermediate	2 College Prep ( <i>ab initio</i> part 1)	2H ( <i>ab initio</i> part 2)

Sophomores in Latin 3H should proceed to Latin SL (part 1). Students who have not yet taken Latin 3H should speak with their teacher about acceleration options.

Sophomores who are in Spanish, French, or Latin 4H could attempt to schedule the corresponding year 2 class, with the understanding that the class is generally enrolled by seniors and it may conflict with a required junior IB class, in which case there may be a gap of one year in language study. Alternatively, such students may request to take the AP course in the junior year.

### **A note about sciences**

Because students may select from biology, chemistry, or physics to fulfill the science requirement after having studied biology and chemistry prior to the 11<sup>th</sup> grade, they may graduate from Harriton without having taken a course in physics. The science department strongly encourages students to have an experience in all three sciences and recommends that they plan accordingly. Students who wish to elect biology or chemistry within the IB Program should, therefore, consider the possibility of taking physics in summer school or in lieu of the 9<sup>th</sup> or 10<sup>th</sup> grade science that they will pursue within the program. They should seek the advice of their science and math teachers to be sure that vital skills are appropriately developed before taking physics. It is also possible to study two IB sciences, one of which must be a one-year course. Though students are welcome to request a non-IB physics class in addition to a full IB schedule in 11<sup>th</sup> or 12<sup>th</sup> grades, there is no guarantee that the non-IB physics class will schedule for them. Therefore, students have the following opportunities to schedule physics:

- Students may select IB Physics as their group 4 subject.
- Students may study two sciences (physics and chemistry, for example), satisfying the group 4 and 6 requirements.
- Students who are advanced enough in math and plan to study chemistry or biology in IB may opt to take physics in 9<sup>th</sup> or 10<sup>th</sup> grade.
- Students may take physics in summer school prior to 11<sup>th</sup> or 12<sup>th</sup> grade.
- Students may request a non-IB physics class in addition to their IB schedule in 11<sup>th</sup> or 12<sup>th</sup> grade, understanding that it is highly possible that the class will not schedule for them.
- Students may consider taking physics at a local university during the evening or a summer session.

### **Notes about mathematics:**

- The three math classes available for IB students are, in order of increasing mathematical intensity: Mathematical Studies SL (including introductory calculus), Mathematics SL (including major units in calculus), and Mathematics HL (including intense calculus). Mathematical Studies SL is designed to meet the needs of students whose strengths are in the humanities and who do not anticipate pursuing advanced studies in math or science in the future. Large portions of the content of LMSD's Algebra 2 Honors course constitute the presumed knowledge for students entering Mathematics SL/HL; completing Algebra 2 Honors prior to entering Mathematics SL or HL is, therefore, highly recommended. A strong foundation in Algebra 1 skills is necessary preparation for Mathematical Studies.

- Due to the flexibility in progressing through the LMSD mathematics curriculum, students may be prepared to access IB Mathematics courses from a variety of points within the district’s sequence of courses. Care should be taken to avoid excessive redundancy in curriculum. Consequently, students should not take the following combinations of courses:
  - Math Analysis/Trigonometry Honors (now called Pre-Calculus Honors) and IB Mathematics SL/HL (part 1)
  - AP Calculus BC and IB Mathematics HL (part 2)
  - AP Calculus AB and IB Mathematics SL (part 2)

Sophomores in Algebra 2H are perfectly aligned to enter IB Mathematics SL/HL (part 1). Freshmen in Algebra 2 Honors who are intending to enter IB are advised to take an alternative math course sophomore year in order to keep the 2-year IB Mathematics SL/HL sequence intact. Sophomores in Math Analysis/Trig H are advised to take an alternative math course junior year in lieu of IB Mathematics SL/HL (part 1), and they will join their IB peers in part 2 of the course as seniors. Alternative courses include Statistics (AP or College Prep), AP Calculus AB for anticipated Mathematics HL students, Computer Science, or an online math class offered through Virtual High School. Please refer to the “Possible Course Sequences from 7<sup>th</sup> through 12<sup>th</sup> Grade” chart at the end of this document.

- There is minimal redundancy between IB Mathematical Studies SL and Math Analysis/Trigonometry (Pre-Calculus) Honors or College Prep. Students intending to study Mathematical Studies SL should always take the two-year sequence.
- Sophomores who have not yet taken Algebra 2 Honors and wish to take IB Mathematics SL/HL should speak with their math teacher, the IB Coordinator, and their school counselor to consider available options.
- **New IB Math courses coming for the IB Class of 2021**  
*(This information applies only to students in 9<sup>th</sup> grade or younger in the 2017-2018 academic year.)*

Every IB course undergoes curriculum revision approximately every seven years. The IB mathematics courses are changing as of September 2019, affecting the freshman in 2017-2018 and subsequent cohorts. The current offerings (Mathematical Studies SL, Mathematics SL, and Mathematics HL) will be replaced by two courses (Mathematics: Applications and interpretation; and Mathematics: Analysis and approaches), both of which will be offered at Standard Level and Higher Level, effectively creating four math options for our students.

The following chart provides IB’s formal course description of each of the courses and their approximate equivalents in the current curriculum. The recommended prior math background, in conjunction with the course descriptions, is intended to help students gauge which course and level are best fits for them. In identifying the recommended prior math background, consideration was given to both the pre-requisite content necessary for success as well as the required experience in complex mathematical reasoning, regardless of content. In selecting courses and levels, students are urged to consider their prior math background, their previous grades, their plans for future studies in mathematics, their interest in mathematics, and the time commitment necessary for success. Students’ current teachers are best equipped to provide guidance in selecting courses and levels; their input should weigh heavily in the decision making process.

The chart is not intended to represent a continuum of rigor. While it is likely that the higher level will be more rigorous than the standard level of the same math course, it should not be assumed that the Applications and Interpretations course at both levels will be less rigorous than the Analysis and Approaches course at SL; rather, the focus and the content of the courses will be different.

Though IB has not yet released the complete subject guides for the new courses, broad content topics are available and are posted on the IB page of the LMSD website.

<b>New math course starting in September 2019 for IB Class of 2021</b>	<b>Course description from IB</b>	<b>Approximate current equivalent</b>	<b>Recommended prior math background</b>
Mathematics: Applications and interpretation	This course is designed for students who enjoy describing the real world and solving practical problems using mathematics, those who are interested in harnessing the power of technology alongside exploring mathematical models and enjoy the more practical side of mathematics.	<b>STANDARD LEVEL (SL):</b>  This class is most similar to the current Mathematical Studies SL course.	<b>STANDARD LEVEL (SL):</b>  Strong Algebra 1 skills
		<b>HIGHER LEVEL (HL):</b>  This course will include new content, including statistics. It is intended to meet the needs of students whose interest in mathematics is more practical than theoretical but seek more challenging content.	<b>HIGHER LEVEL (HL):</b>  Strong Algebra 2 skills
Mathematics: Analysis and approaches	This course is intended for students who wish to pursue studies in mathematics at university or subjects that have a large mathematical content; it is for students who enjoy developing mathematical arguments, problem solving and exploring real and abstract applications, with and without technology.	<b>STANDARD LEVEL (SL):</b>  This class is most similar to the current Mathematics SL course.	<b>STANDARD LEVEL (SL):</b>  Strong Algebra 2H skills
		<b>HIGHER LEVEL (HL):</b>  This class is most similar to the current Mathematics HL course.	<b>HIGHER LEVEL (HL):</b>  Very strong Algebra 2H skills

### **A note about US Government**

The Lower Merion School District requires all students to take a full-year US Government class. Following are the possible course sequences:

	<b>10<sup>th</sup> Grade</b>	<b>11<sup>th</sup> grade</b>	<b>12<sup>th</sup> grade</b>
Path #1	Global Studies 2	History of the Americas HL (part 1) and US Government	History of the Americas HL (part 2)
Path #2	Global Studies 2	History of the Americas HL (part 1)	History of the Americas HL (part 2) and US Government
Path #3	Global Studies 2	History of the Americas HL (part 1)	History of the Americas HL (part 2)
	US Government during summer school		
Path #4	US Government	History of the Americas HL (part 1)	History of the Americas HL (part 2)

Students who elect path #4 will be expected to enroll in Global Studies 2 in 12<sup>th</sup> grade if they do not enter the IB Program. Students who elect path #4 are strongly encouraged to request Global Studies 2 in 10<sup>th</sup>, 11<sup>th</sup>, or 12<sup>th</sup> grade as an additional course, subject to availability.

Please note that students who enroll in Physics SL are unlikely to have an opportunity to schedule a non-IB course during their senior year and should, therefore, schedule US Government prior to entering 12th grade (i.e., Path #2 would be impossible).

### **EARNING THE IB DIPLOMA**

In addition to the grades that students will receive toward their Harriton High School diplomas, they will receive IB scores for each course in the IB Program.

Each IB score is the combination of the internal and external assessments that occur during the course. Internal assessments constitute approximately 30% of the total IB score and are IB activities (including essays, oral evaluations, presentations, performances, etc.) that occur during the school year and are evaluated by the IB teacher in accordance with the guidelines required by the IB. Internal assessments are subject to external moderation. This means that IB teachers are required to submit the results of their internal assessments and samples of the students' work to the IB, which will then adjust the teacher's scores either upward or downward in order to ensure international consistency in assessment. External assessments constitute approximately 70% of the total IB score for each course and are evaluated by international examiners, not by Harriton's IB teachers.

The IB score for each of the 6 courses is determined by the combination of the internal and external assessments and is reported on a scale of 1 through 7. As a general rule, students must accumulate a total of 24 points (the sum of the course scores) and complete the CAS, Extended Essay, and Theory of Knowledge requirements in order to receive the diploma. Consequently, a high score in one area may compensate for a low score in another area. Students may also earn bonus points for particularly impressive work in Theory of Knowledge or the Extended Essay. There are more precise rules that govern the distribution of standard level and higher level points, so the goal of a total of 24 points is to be understood as an approximation.

Students will learn whether they have earned the Diploma during the summer after graduation. Diplomas are mailed from Cardiff in September and will be available in the fall from the IB Coordinator. A reunion is generally planned in December or January (during winter break for most colleges) for the purpose of distributing Diplomas.

## EARNING THE IB BILINGUAL DIPLOMA

The IB Bilingual Diploma documents native/near-native fluency in more than one language. It is intended for students who have been raised in a bilingual environment and have had substantial experience in reading and writing in both languages. It is not available for students who have reached a high level of proficiency in a foreign language. The IB Bilingual Diploma is conferred under the following circumstances:

- The student earns a minimum grade of 3 in two Languages A. This is accomplished by taking our taught English A: Literature HL class and taking a self-taught class in another Language A.
- The student tests in a group 3 or a group 4 subject in a language other than his/her Language A and earns a minimum grade of 3 in both the Language A course and the group 3 or 4 course.

### *The Pre-IB Experience*

#### NINTH AND TENTH GRADES

A rigorous academic experience in 9<sup>th</sup> and 10<sup>th</sup> grades is crucial in order to develop the scholastic skills and mastery of content required for success in the 11<sup>th</sup> and 12<sup>th</sup> grade IB Program. The current ninth and tenth grade honors-level curriculum is our Pre-IB Program. Though 9<sup>th</sup> and 10<sup>th</sup> grade students intending to pursue the IB Diploma are strongly encouraged to study at the honors level in most disciplines, not doing so will not exclude a student from participating in the program. Highly motivated and academically successful students who do not follow an honors curriculum in 9<sup>th</sup> and 10<sup>th</sup> grades should speak with their parents, teachers, and the IB Coordinator about their interest in pursuing the program.

In addition to graduation requirements and optional electives, the typical pre-IB experience will include:

Ninth grade core courses: English I Honors, Global Studies 1 Honors, Mathematics\*, World Language Honors, Biology Honors.

Tenth grade core courses: English II Honors, Global Studies 2 Honors, Mathematics\*, World Language Honors, Chemistry Honors. Pre-IB sophomores often request US Government as well, either in addition to or in lieu of Global Studies 2.

\*Because large portions of Algebra 2 Honors constitute the presumed knowledge for students entering Mathematics SL/HL, students planning to request Math SL or HL would be well-served by taking Algebra 2 Honors prior to their IB experience. Students wishing to take Math SL or HL and are not sequentially aligned to complete Algebra 2 Honors prior to entering IB should consult with their math teacher, the math department chair, and the IB Coordinator to discuss pathways to access IB Math SL/HL. A strong foundation in Algebra 1 skills is necessary for success in Mathematical Studies.

All students and parents are urged to review the 7<sup>th</sup> through 12<sup>th</sup> grade sequence of courses in this document to be sure that prospective IB students are prepared to enter the IB Program as juniors.

#### MIDDLE SCHOOL STUDENTS

Current middle school students should have as their primary goal the achievement of academic success in the classes that are most appropriate for their abilities, and ninth grade courses should be scheduled accordingly. It is not recommended that rising ninth grade students enter classes for which they are not prepared as a means of assuring eligibility for the IB Program.

## *The IB Summers*

The IB Program is an atypical program, and IB students should anticipate their summers to be atypical as well. The primary purpose of summer vacation is to relax; this is no different for IB students. However, rising IB juniors should begin to consider what activities they would like to use for CAS and potential Extended Essay topics. Rising IB seniors should visit as many colleges as possible during the summer, complete the major essay portions of college applications to whatever extent possible, continue working on some internal assessments and on-going assignments, and continue work on the CAS and Extended Essay components of the program. The fall semester of senior year is challenging for all students, whether or not they are in IB. A productive summer will be a wise investment in a successful senior year.

## *The Application Process*

The application process is designed to help sophomores in their thinking about IB and to help them own their decision to become IB students. The application includes opportunities to reflect on elements of the program and its potential match to who they are as learners. Though all applicants are admitted, the application should be taken very seriously as it is the students' opportunity to showcase their potential as successful IB students. The application also collects important data and permissions that are required for registration with the IB Organization.

Though the program is not designed exclusively for the academically elite, it is a rigorous program that holds students to high expectations. All sophomores who consider themselves highly-motivated, diligent students; who have a record of academic success; and who espouse the philosophical foundation of the program should consider submitting an application, including students who have not completed an honors curriculum in ninth and tenth grades. Such students should recognize, however, that the program is likely to be substantially more challenging than what they have experienced to date.

Applications will be made available to sophomores in the fall and are due in January. Sophomores who submit an application are *committing* to beginning the program in September if they are accepted. Building-wide staffing decisions are made based on the projected enrollment in the program. It is not appropriate for a student to submit an application and then decide afterward that he/she is no longer interested. Serious consideration of participating in IB should take place *before* submitting the application, not after. The act of submitting an application represents a commitment to entering the program.

## *Student Supports*

The IB Diploma Program is available to all students. The support structures that are available to all Harriton students are available to IB students, including access to our Learning Center and open access to all teachers during Lunch and Learn (an hour-long period of time mid-day in which students have lunch and can access their teachers). All students work with a team of teachers, a school counselor, and an IB Coordinator who are invested in their success.

English Language Learners additionally have the support of our English as a Second Language Department. Students with special learning needs have the added support of the Special Education Department.

The IB Diploma Program is accessible to students with IEPs and 504 Plans. Families of students who intend to pursue the IB Diploma Program are advised to consider the rigors and expectations of the program as curricular decisions are being made. Supports documented in an IEP or 504 Plan should be designed with the intention of maximizing success in formal IB assessment. The International Baccalaureate Organization provides assessment accommodations according to its own standards, which may or may not be consistent with those documented in an IEP or 504 Plan. Only those assessment accommodations authorized by IB will be provided for IB assessments.

## *College Admission and Credit*

*“It may be the best kept secret in high school reform,” said Barmak Nassirian, the associate executive director of the American Association of Collegiate Registrars and Admission Officers, in Washington. The IB Program, he said, is generally regarded as “the gold standard of high school curriculum in admissions circles.”*

*Education Week*  
March 29, 2006 (page 8)

The International Baccalaureate Diploma Program was established initially as a means of providing a unified curriculum for families that are internationally mobile. The IB Diploma is very highly regarded as an admissions credential to universities throughout the world because of its academic rigor, focus on critical thinking, and the research and writing skills it fosters. However, neither the IB nor Lower Merion School District asserts that following the IB curriculum or earning the IB Diploma represents a guarantee of college admission or the earning of advanced credit.

There are two inter-related considerations regarding universities’ consideration of IB work: admission and the granting of credit. In general, universities throughout the world admit students based on the strength of their high school curriculum and grades earned; IB is universally considered to be one of the most rigorous curricular options available to students.

Unlike Advanced Placement (AP) classes, IB classes were not designed to provide advanced placement or credit in college; rather, they were designed to provide a rigorous college-preparatory high school experience. However, many colleges and universities in the US recognize that IB students are completing college-level work by US standards and grant advanced credit based on the scores earned on IB assessments. Recognition of a student’s work in IB classes in conferring advanced credit varies substantially by institution. Students and parents are well-advised to review the policies of the colleges in which they are interested.

Students who intend to pursue admission to a university outside the United States are strongly urged to review the policies of the relevant government and/or institutions. Though the IB Diploma is very widely recognized as an entrance credential to universities throughout the world, some countries stipulate the completion of certain courses or the attainment of minimum scores. Please see <http://www.ibo.org/university-admission/recognition-of-the-ib-diploma-by-countries-and-universities/> for further information.

Though IB and AP are different programs that follow different curricula, some students may choose to take an AP exam after completing the corresponding IB course and engaging in supplementary preparation. Unlike the IB, the College Board does not require that a student take an AP class in order to sit for the examination.

## *Frequently Asked Questions*

### **Is this a program for gifted students?**

The IB Program is not a gifted program, though gifted students may be very successful in it. The program is designed for the academically motivated student. Although there may be gifted students who choose to participate, not all students who do so are classified as gifted. Also, there will certainly be gifted students who will choose not to participate.

### **What is the difference between the AP and IB programs?**

The AP program is an American program that is content-driven. Its primary intention is to provide advanced placement in college in specific subjects. Students choose any number of AP courses depending on their specific strengths. College credit is given on the basis of results from standardized AP exams that are graded externally at



the end of the academic year. The IB program has a comprehensive, integrated curriculum of challenging work in six academic subjects. It is only available at authorized schools whose policies are determined by international educators (the International Baccalaureate). Grades are given on the basis of internal assessments as well as externally assessed examinations. Advanced standing in colleges is a frequent by-product of success in IB courses. The IB Program is guided by the mission statement and learner profile of the IB Organization (see “Theory and Philosophy” section). In addition, the College Board does not require that a student take an AP class in order to sit for the AP exam; the IB does require that a student take the IB course in order to take the IB assessments. Some IB courses will prepare students for AP exams and some IB students choose to take both sets of exams after some independent study.

### **What will be the requirements for admission?**

All students who apply for admission to the IB Program are admitted. The application process is designed to guide sophomores’ thinking about their potential participation in the program and to help them own their decision to be IB students.

### **Who can apply?**

Any resident of the Lower Merion School District can apply during his/her sophomore year.

### **What happens to the student who discovers that the program is too difficult? Can he or she transition back into the regular program?**

A student can return to college preparatory, honors or AP level courses, depending on course availability. Experience has shown that students know quite soon into the first semester of the junior year that they do not wish to be part of the program.

### **What if a student is strong in math and science and not the humanities or vice versa? Does one have to perform at a uniformly high level?**

Students need to take only three of the six subjects at the higher level. Each individual will choose a program best suited to his or her abilities. However, even standard level courses are at least at the AP or honors level of difficulty. Though writing skills are emphasized in all disciplines, IB is not a “humanities based” program. The needs of students who consider themselves more oriented toward the maths and sciences are met through the 2-year higher level science classes, the opportunity to study two IB sciences, Mathematics HL, the opportunity to write an Extended Essay related to mathematics and science, and the ability to fulfill CAS activities that are connected to mathematics and science. IB graduates have succeeded in majors in both the humanities and the maths and sciences at many outstanding universities throughout the world.

### **Can an IB student play sports or participate in the orchestra, etc.? What about after-school jobs?**

IB students must complete CAS (creativity, activity, service) component of IB, which can include athletics, journalism, music, theater, art, community service, etc. Generally, IB students continue their participation in activities in school, after school and in the community and receive some credit towards the CAS requirement. Students can have jobs but may find that the time demands of the program make it difficult to do both. Because the IB Program typically occupies 7 of the 8 sets available, scheduling non-IB classes may be challenging, especially for classes for which there is only one section.

### **Will IB students and teachers be isolated from the rest of the school community?**

The IB faculty typically teaches classes at the college preparatory, honors and/or AP levels. This is one of the greatest benefits of IB for the school. Teachers who have benefited from IB training in curriculum, teaching, and assessment techniques can take the skills to other non-IB students. IB students will be in classes primarily with other IB students but they will not be any more isolated than AP students are. Non-IB students can take the elective IB courses and some IB subjects may be combined with other classes. Through CAS, all students will be expected to participate in extracurricular activities, though not necessarily sponsored by the school. Lower Merion School District’s IB students to date have continued to be active members of the school and local communities.

### **How will students be assessed? How do you calculate GPA or class rank?**

Similar to students who take AP courses, IB students will receive two types of grades. Each student will receive grades that count toward a Harriton High School diploma and are the result of the teacher’s normal assessments

throughout the course of the year. The teacher may choose to include the IB internal assessments that occur as well since he or she will be assessing them. This is the grade that will appear on report cards and transcripts and will be used in the calculation of the GPA. In addition, each student will receive a grade for each course, on a scale of 1 to 7, which integrates the external and internal assessments and is awarded by the IB Curriculum and Assessment department in Cardiff. These grades, in conjunction with the CAS, Extended Essay, and Theory of Knowledge requirements, will determine whether the IB Diploma is awarded. Because at least four of the IB scores and the final status of the diploma are not available until the summer after the student graduates, admission to colleges in the United States will be based primarily on grades reported on the student's transcript and successful participation in the IB Diploma Program to date.

The typical student is likely to receive lower grades than he/she is accustomed to in the beginning of the program while he/she is adjusting to its demands and the time commitment necessary for success. However, most students are able to bring their grades back up to the level of their expectations as they progress through the first year. It is important to understand that only final course grades will appear on the transcripts that are sent to colleges.

**How do colleges grant advanced credit for IB courses?**

There is no easy answer to this question because each college that grants IB credit does so according to its own criteria. Some schools award a full year of credit to students who earn the IB Diploma. Other schools require a cumulative score greater than 24 points. Many other schools grant credit on a course-by-course basis. Students who have narrowed down their list of potential colleges are highly encouraged to inquire about their credit granting policies by contacting the admissions offices of the schools. The greatest benefits of the IB Program lie in the skills it fosters, skills that will be utilized throughout the college experience and well beyond.

**What accommodations are provided by the IB for students with special needs?**

The IB permits some accommodations for students who have special learning needs, but its guidelines are very specific and Harriton must adhere to them strictly. IB teachers will provide appropriate support in the instruction and assessments that lead to the grade awarded toward a Harriton High School diploma, but final approval for accommodations made during IB assessments rests wholly with the IB.

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***For additional information, please contact:***

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# The International Baccalaureate Diploma Program

Grades 11 and 12

The following graphic organizer outlines the possible course sequences leading to the IB Diploma. Students will follow one of the two-year sequences for each of the six groups to be studied.

SUBJECT GROUP	Grade 11	Grade 12	Comments
<b>GROUP 1: Language A</b>	English A: Literature HL		Native speakers of other languages may study that language on a “self-taught” basis as a standard level course to satisfy this requirement.
<b>GROUP 2: Language B, <i>ab initio</i>, Classical Languages</b>	Spanish B SL		English B HL is available for English Language Learners. Spanish and French B HL are available for near-native speakers.
	French B SL		
	Latin SL		
	Spanish <i>ab initio</i> SL		
	French <i>ab initio</i> SL		
<b>GROUP 3: Individuals and Societies</b>	History of the Americas HL		The required credit in US Government may be earned (1) during the tenth grade, (2) as a non-IB elective in 11 <sup>th</sup> or 12 <sup>th</sup> grade, or (3) during the summer. See page 10.
<b>GROUP 4: Sciences</b>	Physics HL		Students must study their science, math, or elective course at the higher level. Students who wish to take 4 higher level classes may do so if one of them is math. Note that Physics SL is a 2-year course. Students who choose to satisfy the group 6 requirement with a second science must ensure that one of the two science classes is a 1-year course.
	Chemistry HL		
	Biology HL		
	Physics SL		
	Chemistry SL		
	Biology SL		
<b>GROUP 5: Mathematics</b>	Mathematical Studies SL		See important notes about mathematics sequencing beginning on page 9.
	Mathematics SL		
	Mathematics HL		
<b>GROUP 6: Arts or Electives</b>	Visual Arts HL		Students must study their science, math, or elective course at the higher level. Students who wish to take 4 higher level classes may do so if one of them is math. A second science or a second Language A can also be used to satisfy this requirement. Students who choose to satisfy this requirement with a second science must ensure that one of the two science classes is a 1-year course.
	Music HL		
	Theatre HL		
	Psychology HL		
	Economics HL		
	Visual Arts SL		
	Music SL		
	Theatre SL		
	Psychology SL		
Economics SL			
Economics SL			
<b>CORE REQUIREMENT: Theory of Knowledge</b>	IB Core	Theory of Knowledge	IB Core will engage the students in the 3 core elements of the Diploma Program. Theory of Knowledge becomes a separate course in the 12 <sup>th</sup> grade, and students continue their work in CAS and the Extended Essay in IB Senior Project
<b>CORE REQUIREMENT: Creativity, Action, Service</b>		IB Senior Project	
<b>CORE REQUIREMENT: Extended Essay</b>			
<b>OTHER REQUIREMENTS</b>	Physical Education	Physical Education	

## Sample Schedules

### SAMPLE I: Higher Level Science and Standard Level Elective

SET	GRADE 11	GRADE 12
1	Biology HL	
	Chemistry HL	
	Physics HL	
2 (Day A)	Science Lab	
2 (Day B)	Physical Education	Physical Education
2 (Day D)	IB Core	IB Senior Project
3	HHS Elective or free period	HHS Elective or free period
4	Mathematical Studies SL	
	Mathematics HL	
	Mathematics SL	
5	English A: Literature HL	
6	Spanish B SL	
	French B SL	
	Latin SL	
	Spanish <i>ab initio</i> SL	
	French <i>ab initio</i> SL	
7	History of the Americas HL	
8	Visual Arts SL	Theory of Knowledge
	Music SL	
	Theatre SL	
	Psychology SL	
	Economics SL	

### SAMPLE II: Higher Level Elective and Standard Level Science

SET	GRADE 11	GRADE 12
1	Biology SL	HHS Elective or free period
	Chemistry SL	
	Physics SL	
2 (Day A)	Science Lab	Science Lab if Physics SL; otherwise, free
2 (Day B)	Physical Education	Physical Education
2 (Day C)	IB Core	IB Senior Project
3	HHS Elective or free period	Theory of Knowledge
4	Mathematical Studies SL	
	Mathematics HL	
	Mathematics SL	
5	English A: Literature HL	
6	Spanish B SL	
	French B SL	
	Latin SL	
	Spanish <i>ab initio</i> SL	
	French <i>ab initio</i> SL	
7	History of the Americas HL	
8	Visual Arts HL	
	Music HL	
	Theatre HL	
	Psychology HL	
	Economics HL	

**SAMPLE III: Higher Level Mathematics**

SET	GRADE 11	GRADE 12
1	Biology SL	HHS Elective or free period
	Chemistry SL	
	Physics SL	
2 (Day A)	Science Lab	Science Lab if Physics SL; otherwise, free
2 (Day B)	Physical Education	Physical Education
2 (Day C)	IB Core	IB Senior Project
3	HHS Elective or free period	Theory of Knowledge
4	Mathematics HL	
5	English A: Literature HL	
6	Spanish B SL	
	French B SL	
	Latin SL	
	Spanish <i>ab initio</i> SL	
	French <i>ab initio</i> SL	
7	History of the Americas HL	
8	Visual Arts SL	HHS Elective or free period
	Music SL	
	Theatre SL	
	Psychology SL	
	Economics SL	

Because of the added scheduling flexibility for students who opt to take Mathematics HL, these students may enroll in a 4<sup>th</sup> higher level class, either their science or their elective.

**SAMPLE IV: Higher Level Science and Second Science (SL) for Elective**

SET	GRADE 11	GRADE 12
1	Biology HL	
	Chemistry HL	
	Physics HL	
2 (Day A)	Science Lab for Science in set 1	
2 (Day B)	Physical Education	Physical Education
2 (Day D)	Science Lab for Science in set 2	IB Senior Project
3	Biology SL	HHS Elective or free period
	Chemistry SL	
4	Mathematical Studies SL	
	Mathematics HL	
	Mathematics SL	
5	English A: Literature HL	
6	Spanish B SL	
	French B SL	
	Latin SL	
	Spanish <i>ab initio</i> SL	
	French <i>ab initio</i> SL	
7	History of the Americas HL	
8	HHS Elective with IB Core in Lunch and Learn or IB Core once a cycle and free twice a cycle.	Theory of Knowledge

## Possible Course Sequences from 7<sup>th</sup> through 12<sup>th</sup> Grade

	7 <sup>th</sup> Grade	8 <sup>th</sup> Grade	9 <sup>th</sup> Grade	10 <sup>th</sup> Grade	11 <sup>th</sup> Grade	12 <sup>th</sup> Grade
<b>English<sup>1</sup></b>	English 7	English 8	English 1H	English 2H	English A: Literature HL	
<b>World Language<sup>2</sup></b>	Spanish 1A	Spanish 1B	See page 9 for potential sequences		Spanish B SL	
	French 1A	French 1B			French B SL	
	Latin 1A	Latin 1B	Latin 2H	Latin 3H	Latin SL	
					Spanish or French <i>ab initio</i> , SL	
<b>Social Studies<sup>3</sup></b>	American History (part 1)	American History (part 2)	Global Studies 1H	Western Civ./GSII H and/or US Government	History of the Americas HL (and US Government for 1 year if necessary)	
<b>Science<sup>4</sup></b>	Science 7	Science 8	Biology H	Chemistry H	Physics HL	
					Biology HL	
					Chemistry, HL	
					Physics SL	
					Biology SL	Chemistry SL
<b>Mathematics<sup>5</sup></b>	Pre-Algebra	Algebra 1 (Part 1)	Algebra 1 (Part 2)	Geometry (Col Prp or H)	Mathematical Studies SL	
	Pre-Algebra	Algebra 1 (Part 1)	Algebra 1	Geometry (Col Prp or H)	Mathematical Studies SL	
	Algebra 1 (Part 1)	Algebra 1 (Part 2)	Geometry (Col Prp or H)	Algebra 2 (Col Prp or H)	Mathematical Studies SL	
	Pre-Algebra	Algebra 1	Geometry (Col Prp or H)	Algebra 2 (Col Prp or H)	Mathematical Studies SL	
	Pre-Algebra	Algebra 1	Geometry H	Algebra 2H	Mathematics SL	
	Algebra 1	Geometry	Algebra 2H	AP Statistics	Mathematics SL	
	Pre-Algebra	Algebra 1	Geometry H	Algebra 2H	Mathematics HL	
	Algebra 1	Geometry	Algebra 2H	AP Statistics	Mathematics HL	
	Algebra 1	Geometry	Algebra 2H	Pre-Calculus H	Mathematics HL (AP Statistics in year 1)	
	Algebra 1	Geometry	Algebra 2H	Pre-Calculus H	Mathematics HL (AP Calculus AB in year 1)	
	Algebra 1	Geometry	Algebra 2H	Pre-Calculus H	Mathematics HL (online course in year 1)	
Algebra 1	Geometry	Algebra 2H	Online course	Mathematics HL		
Geometry	Algebra 2H	Pre-Calculus H	AP Statistics	Mathematics HL (AP Calculus AB in year 1)		
<b>Arts and Elective<sup>6</sup></b>					Visual Arts SL	
					Music SL	
					Theatre SL	
					Psychology SL	
					Economics SL	
					Visual Arts HL	
					Music HL	
					Theatre HL	
					Psychology HL	
Economics HL						

- Native speakers of other languages may study that language on a self-taught basis as their Language A. Students born and raised in a bilingual environment may study two Languages A.
- If the student's prior language is neither Spanish, French, nor Latin or if he/she wishes to change languages, he/she will enroll in Spanish or French *ab initio*. Near native speakers of Spanish or French will take Spanish B HL or French B HL. Students whose mother tongue is not English will take English B HL.
- A 1 credit course in US Government is a graduation requirement. Students may take this class (1) during their sophomore year in lieu of or in addition to Global Studies II, (2) during summer school, or (3) during the one free set either in 11<sup>th</sup> or 12<sup>th</sup>. Students who replace Global Studies II with US Government and opt not to enter IB will be expected to take Global Studies II in 12<sup>th</sup> grade. Physics SL students are unlikely to have room in their 12<sup>th</sup> grade schedule for US Government.
- Students who choose to take Biology or Chemistry as their group 4 subject might consider taking Physics in summer school or in 9<sup>th</sup> or 10<sup>th</sup> grade in lieu of the traditional science class.
- Students with a strong Algebra 1 experience should enroll in Mathematical Studies SL. Completion of Algebra 2H prior to Mathematics SL/HL is highly recommended because large portions of Algebra 2H constitute the presumed knowledge of Math SL/HL. Sophomores in Algebra 2 College Prep or Honors are aligned perfectly to enter an IB Math class. Students who are advanced in the mathematics sequence can take Statistics (AP or College Prep), AP Calculus AB, and/or an online course through Virtual High School preceding Mathematics HL (part 1) or Mathematics HL (part 2). Students who take AP Statistics will have a major advantage on the IB Mathematics HL examination.
- A second 1-year science or a second Language A can fulfill this requirement as well.