

FRENCH-AMERICAN SCHOOL OF NEW YORK
LYCÉE FRANCO-AMÉRICAIN DE NEW YORK

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Head of School | Chef d'Établissement

Mission: FASNY develops globally literate, multicultural lifelong learners through a unique program that integrates French, American, and international curricula. We educate students to understand, contribute to, and thrive in an interdependent world. FASNY holds its students to the highest standards of academic excellence, supports them in their personal development, and fosters a spirit of inquiry, service, and social responsibility to the environment and the global community.

School Structure | Organisation de l'école

Preschool:	Ecole Maternelle :	American Grade	French Equivalent
Nursery	petite section	Nursery (3-year-olds)	Maternelle petite section
Pre-Kindergarten	moyenne section	PreK (4-year-olds)	Maternelle moyenne section
Kindergarten	grande section	Kindergarten	Maternelle grande section
		First Grade	Cours Préparatoire
		Second Grade	Cours Élémentaire 1ère année
		Third Grade	Cours Élémentaire 2ème année
			année
		Fourth Grade	Cours Moyen 1ère année
		Fifth Grade	Cours Moyen 2ème année
		Sixth Grade	Sixième
		Seventh Grade	Cinquième
		Eighth Grade	Quatrième
		Ninth Grade	Troisième
		Tenth Grade	Seconde
		Eleventh Grade	Première
		Twelfth Grade	Terminale

FASNY's unique academic program is rigorous and challenging, adhering to either both traditional American and official French curricula or the IB curriculum in the IB Diploma program classes. In all grades, there is an emphasis on critical-thinking skills and problem-solving.

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PRESCHOOL

Preschool at FASNY is, for many students, the first exposure to a second language. Based at FASNY's Manor campus, in Larchmont, our preschool students benefit from plenty of outdoor recreation space. The FASNY full-day preschool program is designed to stimulate curiosity, promote creative thinking, and develop social skills in a caring and nurturing environment. Language acquisition is at the heart of FASNY's preschool program. Much of the preschool curriculum is taught in French in order to establish the strong language base needed for the reading process. Language development in both French and English is an integral part of all academic, motor, social, and artistic activities and emphasized in all of the preschool skills taught. French language support is offered for non-francophones in Nursery, PreK, and Kindergarten. English support classes are offered for non-anglophone children who require more exposure to English. These classes are held in a small-group setting one hour a week for PreK and Kindergarten. In addition, every week a half-day is dedicated to French language support for non-francophone students and in English for non-anglophones.

PRESCHOOL GENERAL INFORMATION

Excursions / Field Trips

The preschool classes go on several field trips throughout the school year. These trips play an important part in the learning process. Typical excursions include visits to museums and children's theater productions. The cost of these trips is incorporated in the tuition bill. Parents are often asked to help chaperone preschool trips. Chaperoning is typically organized through the class delegates, who also distribute guidelines for accompanying parents.

Grading System and Report Cards

A report card is sent out twice a year (January and June) in Nursery, PreK, and Kindergarten. This report reflects a student's progress in French and English, as well as mathematics skills, motor coordination, and social development. There is also a section for written comments by the French and English teachers. Students are not graded but rather shown as having acquired a skill, in the process of acquiring the skill, or not yet ready to acquire the skill. Communication with parents takes place throughout the year during parent/teacher conference days, at Back-to-School Night, and with the teachers during the year when necessary.

Library

The library contains an increasing number of French and English books and periodicals as well as audio-visual equipment. Each student has the opportunity to visit the

library and borrow books to become familiar with its contents and services.

Physical Education Program

All preschoolers are involved in gross motor control activities every day, including three scheduled periods a week in the gymnasium.

PRESCHOOL ENGLISH STUDIES

Nursery

Children in Nursery learn in an environment that fosters exploration, language, and play. They are guided and encouraged to explore freely a variety of multisensory and multimedia materials and to participate in various interactive experiences. A variety of activities takes place in small-group, whole-class, and independent settings, promoting play, construction of knowledge, and creativity.

These activities include building, painting, using Playdough, drawing, working with manipulatives, playing outside, using gym equipment, exploring nature, cooking, dancing, singing, playing imaginatively, playing rhyming games, and listening to stories read aloud. Oral language skills are underscored throughout the curriculum and integrated within the thematic contexts of science, social studies, art, movement, and music.

Pre-Kindergarten

As part of the developmental learning continuum, children in Pre-Kindergarten continue to develop the language, motor, and social skills introduced in Nursery and strengthen those that have been established.

They begin to articulate in complete sentences, strengthen recognition of sound patterns and rhyming words, identify some letters and make sound-letter matches, and develop concepts of print. Students participate in class discussions, begin to understand key elements in a story, and expand and enrich their vocabulary. They are introduced to a greater amount of subject-matter material as they build the foundations for learning to read and write successfully and the interpersonal skills needed for communicating and cooperating with others.

Kindergarten

Experiences expanding the basic language and literacy skills learned in the preschool help to form the basis for developing reading and writing skills, and for expanding oral language skills, in Kindergarten. To help children construct knowledge, subject-area material is broadened and classroom materials become more complex. Teachers provide interactive instructional and play activities to promote social/emotional growth and fine/gross motor development.

Developing strong pre-reading skills is also an important goal of Kindergarten. Children build upon phonemic (sounds) awareness skills and progress to more advanced phonetic (letter-sound relationships) skills, learning to identify letters with their corresponding sounds and to apply that knowledge to identify printed

words. They are exposed to rhymes, songs, poems, narrative stories, and informational texts. Concepts of print, receptive and expressive vocabulary, listening comprehension, oral language, and motivation to read are developed and expanded upon in the beginning-reading process.

PRESCHOOL FRENCH STUDIES

CYCLE 1 (NURSERY, PRE-KINDERGARTEN, AND KINDERGARTEN)

Cycle 1 places an emphasis on socialization and the development of language skills. The program is designed to help students develop special relationships with other children as well as with adults. In the process, they establish independent identities and gain autonomy. Additional emphasis is placed on the development of fine and gross motor skills as well as on language development. This is a unique time when children lay the foundation for all future learning.

Learning to Work Together

Our primary objective is to teach children how to interact and to facilitate the discovery of the norms of social interaction. They assume responsibilities according to their capabilities, account for their actions, and listen to others. They develop language skills that enable them to better exchange ideas and feelings.

A central objective of the program is to provide the wide variety of experiences that will help students construct the knowledge that will prepare them for more systematic learning in Cycles 2 and 3.

Kindergarten is an essential period of transition. In Kindergarten, the goals of Cycle 1 are met and the precepts of Cycle 2 are introduced to the students ready for the fundamental concepts that are specific to the first and second grades.

Language

Students engage in a variety of spontaneous verbal exchanges and express themselves in a variety of situations, such as dialogue, story, explanation, justification, and summary. They are prompted and encouraged by teachers to provide oral accounts of their first experiences. Students thereby truly learn how to communicate. By interacting with the children, teachers also encourage them to make progress and apply their new language constructions. Students learn to enunciate well, use vocabulary appropriate to purpose, and progressively learn a complex syntax structure through language games.

Exploration of Written Language

Children enter the world of reading and writing through four key areas: phonology, alphabetic principle, pre-writing skills, and writing.

Physical Activities

Physical activities enable harmonious motor skills and intellectual and emotional development. Action and language are key components in children's development, as they explore the space around them. Gradually, they

move from handling familiar situations and learn to adapt to their expanding environment. Over time, the activities gravitate toward the discovery of self, of others, and of the surrounding environment.

Discovery of the World

Children discover the world immediately around them, both natural and man-made. They construct knowledge through observation or manipulation, and verbalize and offer critical judgments based on their experiments. Oral expression is a major component in this field of activity, which includes the discovery of the worlds of science, mathematics, history, and geography.

Sensitivity, Imagination, Creation

In Cycle 1, children develop their sensitivities, imagination, and ability to create. The main goal is to encourage children to discover the arts and to react to them emotionally. Through varied exposure to works of art, children expand their imagination and learn to express their feelings. Children take pleasure in building and inventing, and in the exchange of ideas, feelings, and impressions.

LOWER SCHOOL

Curriculum in French	Curriculum in English
French Mathematics French History and Geography Music (taught bilingually)	English Sciences (bilingual in grades 1-5) Art, Music Physical Education (grades 1-5)

LOWER SCHOOL GENERAL INFORMATION

FRENCH STUDIES, ENGLISH STUDIES, AND THE BILINGUAL CURRICULUM

The curriculum taught in French is mandated by the French Ministry of Education, with some contextual adaptations. The English curriculum is developed by the School in accordance with the best practices of American independent schools.

Both curricula are harmonized for an ideal bilingual learning experience.

Our students quickly learn that both the English and French curricula overlap, just as subjects are linked. Students understand that the various subjects covered are accessible from both curricula and thus are very open-minded and flexible in their approaches to learning. FASNY provides a foundation in written and oral expression, allowing students to continue their bilingual education in the Secondary School.

In order to solidify their reading-acquisition skills, the two sound systems are kept separate, and reading is first taught in French. Building on the English phonetics that are taught in the preschool program, as well as the reading skills initiated in French, children begin formal English reading instruction in the first-grade year. There are several levels of English, including the non-Native ELL (English Language Learners), in each grade. Children are placed in the level best suited to their needs. Students are divided into small groups, based on their individual reading level, thereby creating an ideal and natural learning environment for reading skills to develop.

For children who have no prior English language skills, we have developed an intensive ELL program, whereby students can enter FASNY at any grade level and learn the English language.

They begin learning speaking, reading, and writing skills in order to be able to follow the regular English curriculum as soon as possible but according to individual progress.

ELL (English Language Learners)

A strong ELL program serves the needs of non-anglophone students in grades 1 to 5. ELL groupings are small and designed to teach English to non-Native English-speaking students at a speed and/or level matched to each student's ability. ELL students learn the same content in social studies and science as all students do in each grade level. The goal of ELL instruction is to enable students to develop socially and academically, while achieving competency in the English language and eventually being integrated into a higher-level English class.

Advanced English Language Learners (AELL)

FASNY offers an intermediate stage of English classes, beginning in first grade. These transitional classes are designed for students coming out of ELL, and the goal is to prepare students to enter native-level English classes. Students in these classes have a good, basic foundation of English-language skills but have not yet acquired the academic language level needed to be successful in a regular English class. The curriculum for the intermediate classes closely follows the regular curriculum, with a greater emphasis on reinforcing higher-level language, reading, and writing skills at an appropriate pace for the students.

After-School Student Support Recommended by Teachers

The Lower School offers two opportunities for students to get learning support after the regular school day. The groups are based on teacher recommendations and approved by the parents. The two groups are:

1. Homework Help: One FASNY teacher works with up to four students
2. Tutoring: One FASNY teacher works with one or two students maximum

**These programs are separate from the after-school programs that include garderie (childcare) and Supervised Study Hall, which provides a study hall for students to do their homework in a relationship of one teacher to 10 students. These two programs are open to parent registration and do not need teacher recommendations in order to participate in them.*

Tests

- **French National Evaluations** – FASNY administers the national evaluations required by France's Ministry of National Education. Students take national tests at the beginning of third grade. From first grade through fifth grade, regular evaluations are conducted in class to measure students' mastery of new ideas and concepts.

- **Standardized Tests** – The Comprehensive Testing Program, commonly called the ERB (Educational Records Bureau), is a nationally administered annual testing program that measures academic reasoning and achievement. This test is given to all students in native English in grades 3 to 9 in the spring. Non-native-level English and some ELL students are evaluated with the IOWA tests in grades 3 through 5.

Excursions / Field Trips

Each class goes on several field trips a year. These trips enhance the curriculum and are an important part of the learning process. Typical trips include visits to museums, historical sites, concerts, and theater programs. Students in fifth grade go on an overnight school trip of two days. This trip is an enriching addition to the fifth-grade curriculum. All students generally travel by school bus on a field trip.

Grading System and Report Cards

Families receive a report on their child's work two times a year. These semester reports show the level of competence achieved in each subject area. The report card also contains the teacher's written observations. Parent/teacher conferences are held in November and March.

Libraries

Each campus has a library. The Lower School library contains an increasing number of French and English books and periodicals as well as audio-visual equipment. Each student has the opportunity to visit the library and

become familiar with its materials and services. Lower School students have regularly scheduled instruction periods in the library.

Student Support Team (SST)

The Student Support Team (SST) is intended to gather support when a teacher sees that a student's progress in school is not continuing, due to changed behavior and/or academic performance. SST meetings may include the child's parents, his/her teachers, the school psychologist, members of the administration, the speech therapist, and anyone else working directly with the child. The team develops an action plan with strategies to support the student academically and psychosocially. If further academic psychosocial evaluation or therapy is necessary, a referral to outside sources will be made. Outside therapists and learning specialists who work with students will be invited to SST meetings.

Educational Technology

Educational technology is interwoven into the English curriculum at all grade levels. All students participate in our bilingual coding program. In grades 1, 2, and 3, there is a 1:1 iPad program in place in all the classrooms. The students use the iPads for curricular projects across the disciplines and work on appropriate apps, which reinforce the skills taught in the classroom. In grades 4 and 5, the students benefit from a 1:1 Chromebook program that allows them to begin using additional resources for research, writing, and presentation. The fourth- and fifth-grade classrooms also have 2:1 iPads available for students.

LOWER SCHOOL ENGLISH STUDIES

GRADE 1 CURRICULUM

Reading

The emphasis in first-grade reading is on learning and reinforcing letter-sound relationships, and on developing comprehension skills, reading fluency, and vocabulary acquisition. A phonics-based reading series is used for reading instruction, supported by plays, poetry, and stories for guided reading. Oral skills are developed through participation in class discussions and conversations, including group story-writing, creating plays, reciting poems, and retelling stories.

Writing

Instruction in first grade includes both modeling and shared writing, and individual practice in the fundamentals of written conventions. The value of presentation of work and the use of expressive skills are introduced. Students share in collaborative writing exercises, begin to keep journals, and write brief descriptive sentences. They are encouraged to write freely in response to literature and class discussions. Elementary editing of grammar and punctuation tools are introduced.

Social Studies

First-grade social studies focuses mainly on learning

about the immediate world in which the students live, and includes American culture and history. Topics include families, important American holidays and historical figures, mapping skills, and current events.

Science

In science, students participate in hands-on experiences, experiments, and field visits. Topics of study in first grade include ecosystems and recycling, animal habitats and migration, nutrition and the food pyramid, life cycles, forces and motion, and the human body. Children explore habitats (the rainforest, the desert, and the polar regions) and nutrition.

Art

In first grade, the exploration of color and design, through the use of basic techniques and acquisition of art terms, is emphasized. The continued development of fine motor skills and gross motor skills is consistently incorporated into projects and activities. Vocabulary and definitions, art critiques, and inclusive class discussions are developed to build self-esteem and creativity. Students begin to maintain an art journal as an opportunity to respond to their own artistic process. Interdisciplinary projects with music are created to contribute to one of the school concerts. All students contribute to the annual art show.

Music

Music is taught in both French and English and through five different approaches: instrumental, vocal, cultural, music theory, and a multimedia project. First-grade students learn to keep a steady beat and execute simple rhythmic patterns on a percussion instrument. They focus

on developing good pitch and breathing skills while learning both French and American songs. They study Mozart, the instrument families, and fundamental concepts of music theory.

Physical Education

In first grade, the emphasis is on developing one's personal best, as well as individual skill development in movement patterns and ball activities. Fitness through participation in organized team games, cooperative activities, gymnastics, and dance are encouraged. Specific attention is given to proper throwing, catching, and kicking patterns. Sportsmanship and fair play are modeled and reinforced in each class.

Educational Technology

First-grade students are introduced to the use of computers, including desktops, Chromebooks, and iPads. Teacher-selected computer programs are used to reinforce language, reading, and writing skills. Students use Internet-based, password-protected sites that reinforce skills learned in the classroom to complete homework. In addition, they learn how to code using the OSMO program, designed to teach elementary programming. Each student has access to an iPad for use in the classroom every day.

GRADE 2 CURRICULUM

Reading

In second grade, students begin participating in reading

activities that include both phonics-based materials and trade books. Students read books and materials of various lengths and genres and content material from other subjects. Phonetic rules, decoding skills, and vocabulary development are emphasized in guided reading groups. Reading comprehension skills, including main idea, detail, sequence of events, time, and setting, are introduced and reinforced. Students begin to develop higher-level thinking skills around inferring information and predicting story outcomes.

Writing

The second-grade writing program focuses on supporting students as they learn that their writing has meaning and can be useful. Students begin to produce thoughtful, complete sentences with correct punctuation and capitalization. They begin organizing related thoughts into short, cohesive paragraphs. Fundamental language conventions such as spelling rules, punctuation, capitalization, and sentence structure are reinforced through consistent application.

Social Studies

The second-grade social studies program focuses on familiarizing the children with their geographic place in the world. They continue to learn mapping skills and explore relational geography. Students continue to be exposed to American holidays and customs, as well as the holidays and customs represented in our unique community. Through books, videos, and class discussion, students develop an understanding of themselves and their relationship to the world around them.

Science

Through observation, manipulation, and experimentation, as well as a variety of resources, second-grade scientists are gradually introduced to the scientific method and the importance of controlling variables and keeping records. They explore the interconnected relationship between air and weather. The students study animals to compare the diversity of life in different habitats. They learn about the three states of matter (solid, liquid, and gas), their physical properties, and how they change.

Art

In second grade, class projects challenge and further develop motor skills. Students learn new vocabulary and use new media. They continue to acquire knowledge of new techniques and applications. Major artists are introduced, and their contributions to the art world and history are shared with the students. The students use computer technology to add information to their work. They continue to maintain an art journal throughout the year and participate in the art show in the spring.

Music

Music is taught in both French and English and through five different approaches: instrumental, vocal, cultural, music theory, and a multimedia project. Second-grade students learn basic notation and fingerings for the recorder and a percussion instrument. They focus on good pitch and breathing while learning both French and American songs. Second-grade musicians are introduced to jazz and continue their study of the instrument families and concepts of music theory.

Physical Education

In second grade, activities that build skills, strength, speed, coordination, self-confidence, and self-image form the basis for the games the students play each week. Social and emotional development is addressed through the teaching of concepts such as cooperation, problem-solving, team-building, fair play, and respect for human differences.

Educational Technology

Students in second grade participate in a 1:1 iPad program that includes a coding curriculum and the reinforcement of language skills through spelling and reading-comprehension programs. Classroom smartboards are used to provide additional online resources for support in content areas.

GRADE 3 CURRICULUM**Reading**

In third grade, students continue to learn new vocabulary, how to read for detail, and how to read for different purposes. Small-group work is emphasized as students learn how to synthesize information and distinguish between fact and opinion. Students begin to use problem-solving skills to understand words and decode text deeply. They identify root words and learn how prefixes and suffixes change the meaning of base words. They use problem-solving skills to make predictions about spelling patterns, which supports their phonics and vocabulary development. Students become

independent readers who are able to apply multiple comprehension strategies to different kinds of text.

Writing

In third grade, the emphasis is on internalizing the writing process and developing independence as writers. Students use graphic organizers to develop their ideas. They begin writing drafts of their work and learn how to edit independently for spelling, grammar, and punctuation. Third-grade writers practice their skills in several genres, including personal narratives, book reports, the friendly letter, fiction and nonfiction writing, and poetry.

Social Studies

The third-grade social studies curriculum focuses on map skills, specifically landforms, U.S. geography, and world geography. National holidays, current events, and historical figures are discussed and examined. Students learn about Native Americans and how they adapted to the different regions in America.

Science

In third grade, hands-on experiments and workshops are used to reinforce skills. The scientific method is emphasized to help third-grade scientists predict outcomes, use observation, and reach conclusions. Specific topics include magnets, the solar system, the Earth, and simple machines. Students also learn about the Earth in relation to natural disasters, continental drift, weathering, and erosion.

Art

Class projects begin to include a broader vocabulary of the basic elements of art, encouraging students to develop their own style and introducing cultural aspects of art that can be applied to project work. Students become increasingly independent in the art studio and participate in interdisciplinary projects that enhance their academic program. All students continue to maintain their art journals and participate in the annual art show.

Music

Music is taught in both French and English and through five different approaches: instrumental, vocal, cultural, music theory, and a multimedia project. Third-grade students learn the notes of the staff and elements of solfege, music terminology in both languages, and good pitch and breathing techniques. They are introduced to Bach and Beethoven and continue their study of jazz. Each student creates a percussion instrument of their own and prepares a presentation on a music hero.

Physical Education

In third grade, the emphasis continues to be on the joy of movement and playing games, as well as the continued development of spatial awareness and coordination. Team sports are introduced with a skills-based approach and a small-games focus. Character education is reinforced throughout the year and especially during our cooperative games unit. Students are encouraged to demonstrate sportsmanship and inclusion during all activities.

Educational Technology

In the third grade, students have access to an iPad in their classroom every day. They participate in workshops to learn how to code and use approved online resources to do research. Teacher-selected online resources further support the acquisition of language mechanics and reading comprehension skills. Students are introduced to research skills via multimedia resources and the Internet.

GRADE 4 CURRICULUM

Reading

The fourth-grade reading program incorporates texts of various lengths and genres. Students are taught strategies and skills for reading both fiction and nonfiction. They independently identify main ideas, important details, plot points, sequence, and setting and draw conclusions. Higher-order thinking skills such as inference, author's intent, and character development are stressed. Developing vocabulary, enhancing general language fluency, and reading independently are goals for fourth grade. Students participate in multicultural book clubs with their peers. Oral language skills are further developed and reinforced through read-alouds, debates, and presentations.

Writing

In fourth grade, sentence and paragraph structure are broadened with greater attention to organization, detail, audience, and writing mechanics. Writing genres such as expository, persuasive, and descriptive are studied, with

special attention to purpose, construction, and evaluation. Poetry and story writing give the children an opportunity to express their ideas creatively. Writing assignments are integrated into all other areas of academic exploration.

Social Studies

The fourth-grade curriculum fully integrates the main themes of geography, such as location, human and environmental interaction, human and physical features, and movement, with a study of American history. Economics, civics and government, culture, and society form the foundation for the study of European exploration, the settlement of North America, colonial life, and the Revolutionary War.

Science

Fourth-grade scientists investigate the observable characteristics of organisms, both plant and animal, to learn how the structures function in growth and survival. Students study plant and animal adaptations, as well as the connections between human activity and plant and animal survival. Fourth graders use critical-thinking skills to conduct investigations and draw conclusions based upon observation, communication, comparison, and organization.

Art

In fourth grade, the emphasis is on encouraging students to develop their own style, while applying new media and techniques. New vocabulary, renowned artists and their work, and definitions of art are discussed in class critiques. Interdisciplinary projects in connection with social studies and science curricula are created. Creating

art on an iPad is introduced. All students continue to expand their personal art journal and contribute to the annual art show.

Music

Music is taught in both French and English and through five different approaches: instrumental, vocal, cultural, music theory, and a multimedia project. Fourth-grade students learn the notes of the staff (expanding the recorder range from low D to high F) and elements of solfege, good pitch, and breathing. They are introduced to opera, the Beatles, and contemporary pop music. Each student presents an oral and written report on a famous classical musician or composer.

Physical Education

The focus on team sports continues in fourth grade, as well as the introduction of the racquet sport Pickleball. The focus is on teamwork, strategy, and skills in the team sports units. The Fitnessgram assessment program is introduced. At two different points in the school year, the students perform a series of tests with the goal of measuring their level of fitness against established standards.

Educational Technology

Students in fourth grade have regular access to both a Chromebook and an iPad in their classroom. Areas of focus in educational technology include coding, keyboarding skills, word processing, importing and exporting graphics, learning to use the Internet and web-based tools responsibly, Internet-based research skills, presentation skills, and the use of a local network.

Students use Google Classroom as well as educational software and online resources.

GRADE 5 CURRICULUM

Reading

The fifth-grade reading program uses a literature-based approach. The students read fiction and nonfiction and participate throughout the year in book clubs that utilize multicultural titles. The emphasis is on continued development of higher-level thinking skills. Comprehension skills focus on responding to literature and applying convergent and divergent questioning. Students continue to synthesize and summarize information. Vocabulary skills are further enriched through connections made between individual reading and thematic studies. Oral language skills are developed through consistent class discussion and a variety of classroom presentations.

Writing

Fifth-grade writers are encouraged to use detailed and specific vocabulary, complex ideas, and figurative application of learned literary devices. Students produce more developed and lengthier responses to written and presented material. They become adept in drafting, revising, and publishing a five-paragraph essay. The students explore creative and expository writing. Writing pieces are assessed formally and informally through a variety of checklists and rubrics specific to each assignment.

Social Studies

The fifth-grade social studies program integrates economics, civics, government, culture, and society to form the foundation for an in-depth study of the historical and geographical elements of the Founding Fathers, the Constitution, the creation of the American government, Westward Expansion, the Industrial Revolution, and the Civil War era.

Science

The science curriculum is based on investigations around pendulums, lifeboats, plane sense, and flippers that help students discover relationships through controlled experimentation. Fifth graders gain experience with the concepts of variables and systems (a set of objects that work together). Through these investigations, the scientific method is reinforced with students so that they learn to hypothesize, record, and graph information collected from their experiments.

Art

In fifth grade, the class projects encourage creativity and individuality. They challenge students to use techniques in two-dimensional and three-dimensional art. Using additional equipment and new techniques enhances the challenge of each project. Students explore creating art with iPads and beginner photography. Each student maintains an art journal throughout the year with written and graphic responses to each project conducted in class. All students contribute to the annual art show, which showcases their development and the creativity of their accomplishments.

Music

Music is taught in both French and English and through five different approaches: instrumental, vocal, cultural, music theory, and a multimedia project. Fifth-grade students learn the notes of the staff (expanding the recorder range from low C to high C) and elements of solfege, good pitch, and breathing. They are introduced to several different musical forms, including the symphony, as well as periods of music—from Renaissance to Modern. They also create the choreography for a musical piece.

Physical Education

In fifth grade, students are challenged to increase their knowledge of the rules specific to each sport in order to enhance their basic strategies during play. Cooperative games and dance are also included to complement the team sport units. The fifth grade participates in the Fitnessgram assessment twice during the year. Students are encouraged to participate in the intramural sports program during recess and the annual Hoops for Hearts event.

Educational Technology

Educational technology in fifth grade continues to include coding, developing keyboarding skills, and learning to use Google Classroom. Every student has regular access to a Chromebook and an iPad. The students use technology to deepen their research and presentation skills, and learn how to best use e-mail with the use of a local network. In addition, they use educational software and online resources to reinforce concepts learned in the classroom.

LOWER SCHOOL FRENCH STUDIES

CYCLE 2 (GRADES 1, 2, AND 3)

This is the cycle of Fundamental Learnings, when all learning is an inquiry into the world. Language skills are a priority and, in particular, the acquisition of the French language. During these years, the student builds his or her elementary knowledge, including speaking, reading, writing, and counting. Following the French program and continuing from the material covered in Kindergarten, a student's acquisition of written and oral language becomes natural in the first and second grades. Mathematics skills also are introduced and reinforced in these grades. Technology, through the daily usage of iPads, smartboards, and laptops, is fully integrated in classroom work.

Reading and Writing

In first grade, students first learn to read in French. Building on the graphic skills developed in Preschool, writing skills are taught in conjunction with the reading program. Writing, language skills, and oral expression

are integrated as the basis of this cycle. The areas of study reinforce one another, and class projects, such as journals, are often assigned to support the acquisition of these skills.

Discovering the World

In Cycle 2, the students discover the world around them and begin to explore the notions of time and space as they learn the first elements of history and geography.

Mathematics

In Cycle 2, the students consolidate their knowledge of numbers and develop their aptitude for arithmetical procedures (addition, subtraction, and multiplication). Performing mental operations and problem-solving are also emphasized. Understanding and applying the fundamental notions of measurement, including a comparison of the metric and American systems, are areas covered in this cycle as well.

Science

Science is taught in either English or French, depending on the level of the students and criteria from the French and American programs. The themes covered in first grade are the human body (bones and muscles) and seeds and plants, and in second grade air, water, and the three states of matter, according to the requirements dictated by the French and American curricula.

**CYCLE 3 (GRADES 4, 5, AND 6) *FOR
GRADE 6, SEE MIDDLE SCHOOL PROGRAM**

In Cycle 3, students reinforce, consolidate, and expand their knowledge gained across the curriculum. They apply a new rigor and exactitude to their studies.

Reading / Writing

The students consolidate their reading skills, strengthening comprehension, vocabulary, and fluency. The goal for this cycle is to establish independent readers with a taste for a variety of literary genres and with well-developed basic research skills. At the same time, students develop their writing skills in order to produce increasingly complex, well-organized, and coherent written text.

History / Geography

History and geography studies provide students with a thorough knowledge of our world. Students are encouraged to go beyond simplistic cause-and-effect relationships to build a deeper understanding of the world. Reflecting on current events around the world, students are asked to become more aware of fundamental human rights. This leads to a better understanding of the rules of their social environment, including nation, community, family, school, and class.

Mathematics

By the end of the third cycle, students have a mastery of addition, subtraction, multiplication, and division using integer numbers. They develop a wide range of mental procedures and are able to use the calculator when appropriate. They have a beginning understanding of decimals, fractions, and ratios. During the third cycle, problem-solving becomes a central part of the curriculum. In geometry, the French curriculum gives students the basis to follow a geometry course in Middle School. The important notions of area and perimeter are also introduced during Cycle 3.

Science

During the third cycle, students develop the scientific method approach to investigating their environment. Science is taught in both French and English. This program fulfills the requirements of both the French and American systems. Themes taught include life science in third grade, matter and electricity in fourth grade, and the human body/energy and the environment in fifth grade.

Testing

FASNY organizes evaluations of students from first through fifth grades. These evaluations mirror the ones that used to be recommended by the French Ministry of National Education. This testing allows the School to evaluate students' ability in math and French by the end of Cycle 3. From grade 1 through grade 5, regular evaluations are carried out in class in order to assess the level of students' abilities to learn new ideas and concepts.

SECONDARY SCHOOL

The Secondary School consists of two divisions. The Middle School, which includes students in grades 6 through 8, is located on the Village campus, in Mamaroneck. The High School, which includes grades 9 through 12, is located on the Harbor campus, also in Mamaroneck. The curriculum for students in grades 6 through 8 is bilingual and follows the standards set by the French Ministry of National Education. Courses taught in English adhere to the standards of the New York State Education Department and are comparable to those at the best independent schools in the New York area. Starting in the ninth grade, students choose between two tracks: the French Baccalaureate track—with or without the International Option of the Baccalaureate (OIB)—or the international track, which culminates with the International Baccalaureate Diploma program. Another important focus during the high school years is placed on preparation for university studies, whether in North America, France, or other anglophone or francophone countries in the world.

SECONDARY SCHOOL GENERAL INFORMATION

College Counseling Department: Universities in North America and the United Kingdom

The Co-Directors of College Counseling for universities in North America and the United Kingdom are responsible for helping parents and students with the application process to American, Canadian, and British colleges and universities. They organize college evenings, meet with parents and students for individual counseling sessions, and promote FASNY and its students to universities in the United States, Canada, and the United Kingdom.

College Counselor for French Universities and “Classes Préparatoires”

The assistant head of school is responsible for helping parents and students with the application process to French universities and “classes préparatoires.” He meets with parents and students for individual counseling sessions and also organizes informational evenings.

Community Service

Middle School students complete a minimum of 10 hours of community service each school year. High School students complete a minimum of 50 hours of community service over the course of their high school experience. Typically, some students exceed 100 hours, qualifying them for the President’s Volunteer Service Award. No more than five in-school community service hours per year can count towards the required 50 hours.

English Studies

Students with little or no English language background can enroll at FASNY at any grade level, as English at the French-American School is taught at three levels: ELL (English Language Learners), Advanced ELL for non-native speakers (good oral comprehension and speaking skills, developing reading and writing skills), and Native.

At the ELL level, students work on developing basic listening, speaking, reading, and writing skills. Students traditionally spend one to three years at this level before progressing to the Advanced ELL level, where they work on refining their literary reading comprehension and writing skills. Students may spend anywhere from one to three years in Advanced ELL before reaching the Native level. Students in the Native-level class follow a curriculum comparable to what is taught at the most competitive American independent schools in the region.

In grades 6 through 8, in addition to the five periods of English language study, students also have two periods per week of social studies taught at the ELL, AELL, or Native level. Native-level students also study biology in English, while non-Native students study biology in French.

In grades 9 and 10, students have the choice to pursue the French-American track or the international track. In the French-American track, in addition to the five periods of English language study, students also have two periods per week of social studies taught at the ELL, AELL, or Native level. In the international track, all subjects are taught in English, with the exception of French and Spanish language acquisition classes and the French 9 class, which are taught in the target language.

In 11th and 12th grades, students may opt for the OIB program (International Option of the French Baccalaureate), a rigorous course of study in which English, history, and geography are taught in English by American teachers. Alternatively, in 11th grade and 12th grade, students may opt to follow the IB Diploma program, in which all classes are taught in English, except for French literature. The IB track is available to both francophone and non-francophone students and to those who are fluent in English or, at minimum, proficient English Language Learners.

Excursions / Field Trips

Each class goes on several field trips a year. These trips enhance the curriculum and are an important part of the learning process. Typical trips include visits to museums, historical sites, concerts, and theater programs. Students in grades 6 to 12 go on extended school trips of three or four days or more. These trips are an enriching addition to the school curriculum. All students generally travel by school bus on field trips.

Extracurricular Activities

The long, rigorous school day nonetheless allows for extensive participation in extracurricular activities. Most students become involved in our diverse program, which includes yearbook, school newspaper, mathematics club, literary magazine, filmmaking club, drama club, Model United Nations, chorus, a cappella group, rock band, and other activities. Interscholastic varsity and JV teams include boys and girls soccer, basketball, rugby, cross-country, track and field, and tennis, as well as girls volleyball and softball and boys baseball.

Grading System and Report Cards

Number grades are used in the Secondary School. A scale of 20 is used, with 16-20 being an A+. Most teachers do not give grades of 20 unless the work can be graded completely objectively. As the students get older, grading standards become more rigorous.

Report cards, written in French, are issued in December, March, and June. A single trimester report card is used for all subjects. The report card also contains the teachers' written observations.

For FASNY students applying to U.S. colleges and universities, an American transcript is provided. The French number scores are converted to letter grades. This system is used by all French high schools in the United States.

Honors Courses

All courses in a student's chosen concentration within the French Baccalaureate diploma program are designated as honors courses.

All six courses within the International Baccalaureate diploma program are designated as honors courses, though three are chosen at the Standard Level (SL) and three at the Higher Level (HL).

Internship / Work Experience

High school students are expected to complete a minimum five-day internship in a company/organization. This internship has to take place before the beginning of senior year and typically occurs during the 10th-grade year.

Media Center

Each campus has a library. The libraries contain a sizable collection of French and English books and periodicals, as well as audio-visual equipment. Each student has the opportunity to visit the library and become familiar with its contents and services.

Music, Theater, and Art

FASNY recognizes the importance of the arts in a well-rounded education and sponsors various student productions throughout the school year. These include musical theatrical productions, plays, art exhibitions, assemblies, concerts, and presentations.

Required Third Language

In seventh grade, all FASNY students choose between Spanish and German as a required third language, which they study throughout high school. Elective classes are also available in Latin and in a fourth foreign language (by enrolling in the CNED).

School Counselor

The school counselors counsel students individually or in groups. They work closely with the Division Heads, the Deans of Students, teachers, and student monitors, who refer students to them. In coordination with the Division Heads, they will call in parents for a conference. The school counselor generally meets with students during study hall or lunch periods. However, in case of emergency, a student may meet with the counselor at any time, and teachers will be informed as soon as possible. In coordination with the Division Heads and the Deans of Students, the school counselor organizes drug-

prevention, conflict-resolution, and AIDS-awareness workshops.

Psychologist

In addition to the counselor, a psychologist is available to all middle and high school students on Fridays.

Student Support Team (SST)

If a teacher sees a student at risk because of academic performance or psychosocial behavior, a Student Support Team (SST) meeting is organized. SST meetings may include the child's parents, his/her teachers, the school counselor, the psychologist, members of the administration, the speech therapist, and anyone else working directly with the child. The team develops an action plan with strategies to support the student academically and psychosocially. If further academic, psychosocial evaluation, or therapy is necessary, a referral to outside resources will be made. Outside therapists and learning specialists who work with students are invited to SST meetings.

Tests and Exams

- **Standardized Tests** – The Comprehensive Testing Program, commonly called the ERB, is a nationally administered annual testing program that measures academic reasoning and achievement. All Native-level English speakers in grades 6 to 9 take this test at the beginning of the third term.
- **Diplôme National du Brevet** – Ninth graders enrolled in the French-American track take this French national exam, organized in the United

States by the Cultural Services of the French Embassy, which tests students' mastery of French language, history, geography, civics, and mathematics. When combined with a student's academic results from that year, it leads to a diploma called the Diplôme National du Brevet. Three practice exams are given throughout the year in order to prepare students for the Brevet.

- **11th and 12th Grade "Bac Blanc" / "Mock Exam Week"** – All 11th-grade French Bac students take practice exams in preparation for the Baccalaureate in French, as well as in Biology/Natural Sciences (ES students). Twelfth-grade students practice for all Baccalaureate exams (French Bac or IB) during a one-week period after February break.
- **12th Grade "Devoir Surveillé"** – In 12th grade, all French Bac students take weekly curricular tests in all of their core subjects on a rotating basis. These assessments last three to four hours and begin in the second month of the school year.
- **PSAT and SAT or ACT** – Students applying to universities in North America must take the Scholastic Aptitude Test (SAT) in English and Mathematical Reasoning in 11th and/or 12th grades. Students in 11th and 12th grades can take the SAT at various times during the school year. Students also take the PSAT (Preliminary Scholastic Aptitude Test) in 10th and 11th grades in order to prepare for the SAT. The ACT is an alternative to the SAT. It is a content-based achievement test in English, mathematics, reading, science, and writing.
- **SAT II** – Students applying to universities in North America usually must take two or three

SAT II subject tests in disciplines of their choosing.

- **Advanced Placement (AP)** – Secondary School students who have attained a sufficient level in Spanish and German may sit for Advanced Placement examinations (which are recognized by American universities, often for credit). AP exams are usually given during the month of May.
- **The Two Baccalaureate Diploma Exams at FASNY**

At FASNY, students must choose between two different diploma program tracks.

- The French Baccalaureate, with two concentrations:

FASNY follows the academic curriculum established by the French Ministry of National Education, which develops the examinations for each subject and also appoints the examiners. Each examination consists of a series of essays requiring significant in-depth analysis. Students are also required to sit for two to four oral examinations. The Bac is given over a two-week period between mid-May and mid-June.

The ES Concentration – Economics, Social Sciences, History/Geography, and Philosophy – These courses are designated as Honors classes. In addition, ES students are required to enroll in English, French (native level), a third language (German, Spanish, or another language through the CNED), mathematics, sciences, and physical education courses.

The S Concentration – Mathematics, Biology and Natural Sciences, Physics, and Chemistry – These courses are designated as Honors classes. In addition, S students are required to enroll in English, French (native level), a third language (German or Spanish, or another language through the CNED), history/geography, philosophy, and physical education courses.

OIB Honors Option – At FASNY, students who are proficient in English may elect the American Option of OIB (Option Internationale du Baccalauréat). This program provides a rigorous curriculum in English literature and an integrated history/geography course of study taught by American faculty. These courses are taught at the Honors level. OIB is not a separate diploma, but rather a specialization within the framework of the French Baccalaureate. Students prepare for the OIB during 11th and 12th grades. At the end of 12th grade, students take the Baccalaureate exam in their chosen concentration, as well as rigorous exams (written and oral) in both English literature and history/geography. The examiners for the OIB are approved by the College Board. Please note: The OIB is part of the French Baccalaureate and should not be confused with the International Baccalaureate (IB).

- The International Baccalaureate (IB) Diploma:

FASNY follows the academic curriculum established by the International Baccalaureate Organization (IBO). The IBO develops external examinations for each subject that are marked by trained examiners. It also provides marking services, as well as moderation for a number of required internal written and oral assessments that are completed throughout 11th and 12th grades. The external IB exams are given over a two-week period in

early May.

The Diploma Program (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 (EE). Six courses are chosen from among six groups:

1. Group 1: English Literature, or school-supported self-study in a native-tongue literature
2. Group 2: French Literature or Language Acquisition (Spanish or German)
3. Group 3: Economics or History
4. Group 4: Biology, Chemistry, or Physics
5. Group 5: Mathematical Studies Standard Level, Mathematics Standard Level, or Mathematics Higher Level
6. Group 6: Elective course (a second Social Science or Experimental Science; or Language Acquisition)

Three courses will be at the Standard Level and three at the Higher Level.

SECONDARY SCHOOL CURRICULA

SIXTH GRADE

Art

The sixth-grade art curriculum applies the principles of art to the exploration of the spherical form. Students are instructed in the use of a variety of materials such as pastels, pencils, paints, and clay as they develop their ability to capture a rounded three-dimensional likeness. Some projects are completed from observation, while others call for students to draw from their own imagination. Students are provided with the fundamentals of color theory, which they will continue to build upon and apply in the coming years. This course is taught in English.

Biology

The sixth-grade science program follows the French curriculum while being taught in English. The students, therefore, experience the French inductive style of introducing content combined with the American constructivist approach to student-oriented learning. The program focuses on animal life and animal interaction with the environment. Students first learn about the scientific method and its application and later use it in exploring topics, including animal behavior, interactions of life (ecosystems, populations, and communities), the nonliving environment, conserving resources, plants

(seed and seedless), plant reproduction and development, nutrition, classification, and cells. In order to develop critical thinking skills, an inquiry-based approach is used in the experimental part of the course. Consequently, students develop a solid understanding of topics with the ability to apply it to new situations. Students develop safe and effective laboratory skills. This course is offered to students in Native English. Students in ELL classes follow the same course taught in French.

Chorale

The introductory chorale is open to young singers who show a marked interest in participating in a vocal ensemble. Emphasis is placed on developing proper vocal technique, tonal production, sight-singing skills, and musical terminology. Students learn age-appropriate choral literature representing various styles and cultures. Students may elect to take Chorale or General Music. This course is taught in English.

Coding

In sixth grade, students complete Code.org's Computer Science Fundamentals course, which they started in the elementary school. They will further their understanding and use of concepts such as variables, functions, and conditionals. To mark the culmination of the Computer Science Fundamentals course, students will work on a capstone project displaying their individual creativity and their understanding of programming concepts.

Electronics

This hands-on course puts students in charge of implementing acquired know-how to complete concrete projects. Students' activities are geared towards the

creation of a real, technical object, such as a battery-powered alarm assembled from previously studied components. This course is taught in French.

English 6 Native Level

Using a wide range of literary genres, students are introduced to the basic concepts of literature. Students work to develop skills in higher-level thinking, reading, writing, presenting, and listening. A central theme of the course is mythology in literature. To this end, students study world myths and write a five-paragraph research paper on a theme found in world mythology. As well, students will read the novel *King of Shadows* as a way to prepare for Shakespeare's *A Midsummer Night's Dream* to conclude the year. There is intensive grammar work based on the texts *Rules of the Game 2* and *3*, as well as vocabulary study using *Wordly Wise 3000*, Book 7. This English course is taught at a native speaker's level.

English 6 for Non-Native Speakers (Advanced English Language Learners)

This course begins with an introduction to the literary elements of a short story. These literary elements are then revisited with readings that are similar to regular English course study: *The Children's Homer* and *A Midsummer Night's Dream*. In addition, there is a close reading of *A Fair Wind for Troy*. There is also grammar work using the text *Rules of the Game 1* and various supplements. Vocabulary study is based on *Wordly Wise 3000*, Book 6. This course also focuses on strengthening the foundations of writing skills. Students work on developing clear and precisely written paragraphs on a variety of topics. This course is taught in English.

English 6 ELL (English Language Learners)

The goal of the ELL program is to facilitate the development of proficiency in the English language. Students in an ELL class are taught basic communications skills in addition to developing reading comprehension, composition writing, pronunciation of words, and building vocabulary and word usage. Strategies for teaching low-beginning students differ from those of high-beginning students who have had prior exposure to the English language. Supplemental handouts are used throughout. Texts used in Beginning ELL include *Side by Side* (book and workbook) and *Word by Word Picture Dictionary*, as well as the ELL library program. Students in the intermediate level use *Handwriting*. Other textbooks used are *Basic Vocabulary*, *A Year in the Life of an ESL Student: Idioms and Vocabulary You Can't Live Without*, *Compositions and Grammar 1*, and *Side by Side 1 and 2*. Short stories studied include *Frindle*, *Dear Mr. Henshaw*, and *Crenshaw*. This course is taught in English.

French

Sixth grade is the third and last year of Cycle 3 in the French teaching system. Student develop a deeper analysis of texts. This French class is articulated around the following themes:

1. Monster, what makes us human?
2. Adventure
3. Creation stories, poetic creation
4. Opposition to stronger than thyself: stratagems, lies, and masks

Students read classics of French literature as well as young-adult novels. They reinforce their oral and written linguistic skills. This French course is taught at a native

level.

History and Geography

This course focuses mostly on the ancient world. Students study Mesopotamia, Egypt, the people of the Bible, Greece, Rome, and the origin of Christianity. They also study the Christian empires at the beginning of the Middle Ages as well as an ancient civilization from the Asian continent (the Han dynasty in China or the Gupta dynasty in India). The geography portion of the course introduces students to world demography as well as human settlements (urban settlements, rural settlements, life near the seaside, or life in areas with natural constraints). A number of documents, including texts and photographs, are used for their historical and literary value. Emphasis is also placed on writing, both individual and assisted. This course is taught in French.

Life Skills

The life skills class is organized as one more level of support for the students as they make the move from elementary school to middle school. During this course, students learn how to communicate effectively, recognize and manage their feelings, and make decisions. They learn how to formulate goals and how to manage themselves, their time, and their activities. Students acquire skills that allow them to apply their academic skills more effectively.

Mathematics

This course has three objectives: to reinforce the knowledge acquired in elementary school, to prepare students to use specific mathematical methods and ways of thinking, and to develop the ability to use mathematics

as a tool in everyday life and in other disciplines. Topics covered include the fundamental operations; fractions, ratios, proportionality, and percentages; and reading and representation of data through charts and graphs. In geometry: lines, line segments, angles, circles, and triangles; bisecting line of an angle; mediator of a segment; axial symmetry; quadrilaterals; cubes and rectangular solids; and the metric system in the computation of perimeters, areas, volumes, and time. This course is taught in French.

American Math

This course is designed as a complement to the French math curriculum, ensuring that students acquire math skills on par with the set of skills developed in the U.S. public school system. Our units of study include number properties, variable expressions, negative numbers, customary units of measure, fractions and mixed numbers, ratios, proportions and percent, and statistics and probabilities. This course is taught in English.

Music

Students are introduced to the fundamental elements of music: rhythm, pitch, form, tone, solfege, and musical expression. They are encouraged to develop a sense of independent musicianship through their studies. These concepts are taught using Kodaly's techniques for sight-singing and World Music drumming methods. Students may elect to take Chorale or General Music. This course is taught in English.

Physical Education

Students are introduced to a variety of individual and team sports to encourage a lifetime of physical activity.

Students are provided a safe learning environment in which they learn to compete fairly and accept winning and losing as a part of physical activity. Sports may include, but are not limited to, American football, field hockey, volleyball, basketball, Pickleball, golf, softball, and baseball. This course is taught in English.

Social Studies (Native)

This course is the first half of a two-year course in world cultures. From the start, students are taught the basic themes of geography. Once students have a working knowledge of the themes, they move to the study of early African civilizations. The next phase of the course focuses on the cultures of South Asia, including India, Pakistan, and Bangladesh, followed by the cultures of Southeast Asia. If time permits, students begin a study of Australia and Oceania. Throughout the course, students are introduced to basic note-taking skills and develop writing and research skills. Students will complete projects that reinforce essential research skills. This course is taught in English and is for students of Native and Advanced ELL English levels.

Social Studies (ELL)

Students focus on the five themes of geography, population, cultures, and Earth's natural resources. They also learn about American culture and holidays. They begin with the five themes of geography, followed by African civilization. The second half of the year focuses on the study of the United States as well as Canada. Time permitting, the students are introduced to Mexico and Central America. Texts used in this course include *World Explorer Tools and Concepts* and *All About the Place, Africa/The United States* (all books from the same

series as geographer tools). This course is taught in English.

SEVENTH GRADE

Art

The seventh-grade art curriculum builds upon elements of art covered in the sixth-grade art course, reinforcing skills such as shading, use of color, and three-dimensional form-making. Drawings from life require students to examine cylinders and ellipses. Students learn the basics of perspective and atmospheric perspective. A range of techniques is demonstrated and implemented using familiar and new materials, such as pencils, pens, and watercolor paints. Abstraction of form is introduced toward the end of the school year. This course is taught in English and mandatory for all seventh graders.

Art Option (Elective)

This course builds upon skills taught in the required art curriculum while allowing students greater creative freedom than in the required art classes. Projects often draw inspiration from diverse cultures and artists, exposing students to a range of creative expression. Projects range from mask-making to designing shoes, but all—whether in form-making, patterning, color theory, or abstraction—reinforce the core required art curriculum of that grade. This course is taught in English.

Biology and Earth Science

The seventh-grade science program follows the French curriculum, though it is taught in English. Students, therefore, experience the French inductive style of introducing content, combined with the American constructivist approach to student-oriented learning. The first part of this course explores the human body and its physiology, as well as environmental factors that affect it. In light of the scientific method, students explore topics such as cell processes, muscular activity, nutrients and digestion, the circulatory system, and the respiratory system. The second part of this course explores plant biology and Earth science, emphasizing the Earth in the solar system, Earth's motion, and weather and climate. This course is offered to students in Native English classes. Students in non-Native classes follow the same course taught in French.

Chorale

This introductory chorale is open to young singers who show a marked interest in participating in a vocal ensemble. Emphasis is placed on developing proper vocal technique, tonal production, sight-singing skills, and musical terminology. Students learn age-appropriate choral literature representing various styles and cultures. Students may elect to take Chorale or General Music. This course is taught in English.

Computer Science

Starting in 2018-19, FASNY students will be introduced to Code.org's Computer Science Discoveries (CSD) course, which has been designed with middle and high school students in mind and is fully aligned with CSTA and ISTE

standards. Three important modules of the CSD curriculum are:

1. **Web Design:** Students learn the basics of HTML and CSS. They start to see themselves as programmers and are encouraged to think deeply about sharing and using content. At the conclusion of this module, students will be publishing their personal webpages.
2. **Game Lab:** This is a programming environment for developing animations and games using JavaScript. This unit integrates math and geometry with programming constructs, while simultaneously allowing students to exercise and display their creativity.
3. **App Lab:** Students learn how to use the power of their programming skills to create apps to solve personal and broader social problems.

Students work on a different module in seventh, eighth, and ninth grades. Skills learned as part of the Computer Science Discoveries course pave the way for Computer Science Principles courses.

English 7 Native Level

The theme of this course is coming-of-age stories. We begin with the historical fiction novel *The Ruby in the Smoke* and selected short stories. Then, the class examines the process of "growing up" in Steinbeck's *The Red Pony*, Taylor's *The Road to Memphis*, and Dickens' *Great Expectations*. We end the year with Zusak's *The Book Thief* and Shakespeare's *Romeo and Juliet*. *Wordly Wise 3000, 8* is our vocabulary workbook; Warriner's *Elements of Writing* is our grammar text. This English course is taught at a native level.

English 7 for Non-Native Speakers (Advanced English Language Learners)

This is a flexible class because its goal is twofold: to act as a transition for students recently in ELL and to serve as a bridge to prepare them for Native English as soon as possible. The curriculum begins with direct vocabulary instruction as provided through *Wordly Wise 3000 Book 7*, which focuses on improving students' vocabulary by furthering their understanding of new words and concepts. It also promotes reading comprehension, especially through readings of short stories, introducing literary terms, giving students the basic literary vocabulary of these genres, and teaching them the skills of reading and writing about literature critically. The course also includes grammar, vocabulary-building, and readings that vary by need but can include Scott Foresman's *Language*; supplemental handouts; Azar's *Understanding and Using English Grammar*; *Wordly Wise 3000, Book 6*; Gary Soto's short stories; *The Giver*; *Great Expectations* (Dickens' abridged text); *Good Night, Sweet Master*; *The Boy in the Striped Pajamas*; *Romeo and Juliet*; and the poetry of Naomi Shihab Nye. This course is taught in English.

English 7 ELL (English Language Learners)

The main goal of the ELL Program is to facilitate the development of proficiency in the English language. Students are taught basic communications skills, in addition to developing reading comprehension, composition writing, pronunciation of words, and building upon vocabulary and word usage. Strategies for teaching low-beginning students differ from those of high-beginning students who have had prior exposure to the English language. Supplemental handouts from the ELL library are used throughout the year. Texts used in the

course include *Side by Side* and Azar's *Basic English Grammar*. Depending on the level of the class, one or two shorter novels are read, such as *Flora and Ulysses* and *Tuck Everlasting*, in addition to various articles and short stories. This course is taught in English.

French

The seventh-grade French course is the first year of Cycle 4 in the French teaching program. Teaching plays a major role in academic success by refining reading and writing skills that students will use throughout their academic life and career and by developing their literary and artistic knowledge. This course represents an important building block toward the construction of the independent and critical thinking that will be required for High School. The course is articulated around the following themes:

1. Journeys and Adventures
2. Imagining New Universes
3. Communicating with Others: Family, Friends, and Relationships
4. Heroes, Heroines, and Heroism
5. Man and Nature

These themes allow literary texts to be presented as a window onto our surrounding world. Students also reinforce their oral and written language skills. This French course is taught at a native level.

Spanish I

Students in grade 7 will have the opportunity to start the Spanish program in accordance with the guidelines of the French Ministry of Education. The class meets two hours a week. The students will be exposed to the Spanish language with activities in which they will speak and

converse with classmates, listen to oral documents, and read and write short samples. In conjunction with these skills, students will acquire grammar and vocabulary basics as well as learn about cultural aspects of Spanish-speaking countries around the world.

Spanish 7 for Native Speakers

Students in grade 7 who speak Spanish fluently will have Spanish class two hours a week, during which they will practice the language using a variety of different documents (films like *Conducta* and *Tadeo Jones*, readings like *Manolito Gafotas* or *Fray Perico y su borrico*) as well as an array of diverse oral and written activities.

German I

Students in grade 7 will have the opportunity to start the German program in accordance with the guidelines of the French Ministry of Education. The class meets two hours a week. Students will be exposed to the German language with activities in which they will speak and converse with classmates, listen to songs, and read and write short samples. In conjunction with these skills, the students will acquire grammar and vocabulary basics as well as learn about aspects of German culture.

Music

Students continue learning about the fundamentals of music using solfège as a primary means of expanding their tonal music vocabulary. They also focus on music theory, learning aspects of melody, harmony, texture, rhythm, form, and composition. Students may elect to take Chorale or General Music. This course is taught in English.

History and Geography

Students learn about an extensive period of history, from the Middle Ages to the 17th century. The course highlights the beginning of Islam, the first Arab empires (seventh to ninth centuries), the Middle Ages (11th to 15th centuries), the Renaissance, and the 17th century in France. A sub-Saharan African empire is also studied (the Empire of Ghana, the Empire of Mali, the Empires of Songhai or Monomotapa). The geography portion of the course focuses on three topics: sustainable development, inequalities between countries from the "North" and countries from the "South," and natural resources. Students are asked to analyze documents with an emphasis on writing. This course is taught in French.

Latin (Elective)

During this introductory year, students discover the Latin language and culture through a constant dialogue between the ancient and contemporary worlds. By studying authentic texts, they learn the principles of declension and conjugation. The course is organized around three themes: From Legend to History, Public Life/Private Life, and the Ancient Mediterranean World. This course also offers an introduction to ancient Greek culture and language. This course is taught in French.

Mathematics

In seventh grade, students reinforce and extend their knowledge in the various areas of the curriculum and are introduced to logic and deductive reasoning through problem-solving (initiation to proofs). Topics covered include sequence of operations and the distributive property, sum, and difference of signed numbers, product of fractions; introduction to equations; ratios and

proportionality; and reading and representation of data through graphs and charts using bar diagrams, histograms, and line diagrams. In geometry: angles and parallels; properties of triangles; medians and perpendicular heights in a triangle; bisecting line of an angle, mediator of a segment, circle circumscribed around a triangle; parallelograms; symmetries; and prisms and cylinders. This course is taught in French.

American Math

This class complements the French math curriculum to ensure that students acquire math skills on par with the set of skills developed in the U.S. public school system. Our units of study include number properties, variable expressions, negative numbers, customary units of measure, fractions and mixed numbers, ratios, proportions and percent, statistics, and probabilities. This course is taught in English.

Physical Education

Students build upon the foundation set in sixth grade and begin to apply problem-solving and conflict resolution to their activities. Students learn to officiate games and apply rules when necessary. During the year, individual fitness is instructed with an emphasis on "heart-rate zone training." All students are given a heart-rate monitor and train using the acceptable zone parameters. Gymnastics, aerobics, and endurance running are part of this year's curriculum. This course is taught in English.

Physics and Chemistry

In seventh grade, the physics and chemistry courses follow precisely the curriculum of the French Department

of Education. This curriculum is divided into four components:

- *Energy and Conversion:* Forms of energy, energy efficiency of electrical-mechanical converter, building and design of basic electrical circuits (serial and bypass), notion of electric current, and electrical safety awareness.
- *Structure and Transformation of Matter:* Physical states of matter (microscopic analysis in the case of pure substance), experiment design of solubility and miscibility (homogeneous and heterogeneous), differentiate chemical change from physical change, perform tests to discover properties of chemical compounds, link between mass and volume for gas or solid.
- *Motion and Interaction:* Average speed (uniform motion), forms of interaction (contact forces and at-a-distance forces), mechanical motion (straight line, circular, uniform, and accelerate motion).
- *Signals of Communication and Observation:* Light, source of light, diffuse reflection, linear propagation and ray model of light, nature of signal, and nature of information.

Social Studies (Native)

This course examines East Asia, the Middle East, Latin America, and Canada. The primary text is *World Cultures*, however, historical novels, world and regional maps, primary source readings, and Internet activities with selected websites are also used. Current-events reports related to unit study are an important part of the course. This class is taught in English and designed for students in the Native English course.

Social Studies (Advanced ELL)

This level follows the Native course study in content: East Asia, the Middle East, Latin America, and Canada. Students are introduced to cultures through history, geography, cartography, economics, art, literature, music, and religion. A number of class projects are dedicated to discussion of current events and to guided research of assigned topics. Texts include *World Studies: The Ancient World*, *World Explorer: Asia and the Pacific*, *World Explorer: The U.S. and Canada*, and *World Explorer: Latin America*. This course is taught in English.

Social Studies (ELL)

Students learn about American culture, holidays, personalities, and inventors. They also develop listening and speaking skills. Students are exposed to the same curriculum within their language capabilities as the regular and intermediate social studies program. Texts used include *A First Look at the Place and Country-Regions USA*, by Milada Broukal. The course also uses videos, documentaries, and projects. This course is taught in English.

EIGHTH GRADE

Art

The eighth-grade curriculum takes an in-depth look at color theory and pursues the development of abstract representation through a variety of drawing and painting

exercises, such as blind-contour drawing and painting, and by representing words or phrases through abstract forms and colors.

In other projects, students build upon their knowledge of perspective by applying one-point perspective to cubes. Students are encouraged to push the boundaries of their creativity as they realize the goals of each lesson. This course is taught in English and mandatory for all eighth graders.

Art Option (Elective)

This elective course builds upon skills taught in the required art curriculum while allowing students greater creative freedom than in the required art classes. Projects often draw inspiration from diverse cultures and artists, exposing students to a range of creative expression. Projects range from mask-making to designing shoes, but all—whether in form-making, patterning, color theory, or abstraction—reinforce the core required art curriculum of this grade. This course is taught in English.

Biology and Earth Science

This class follows the French curriculum in biology and geology. The year is divided into four parts that cover the internal activity of the Earth, reproduction (asexual and sexual) in plants and animals, the human reproductive system, and puberty. Earthquakes, volcanoes, plate tectonics, and the geologic time scale are explained using numerous modeling labs and short simulation visuals. This curriculum focuses on scientific methodology as well as on inquiry-based investigations and experiments. This course is offered to students in Native English classes.

Students in non-Native classes follow the same course taught in French.

Chorale

This advanced chorale course continues to develop skills introduced in previous chorale courses. In addition to proper vocal technique, further emphasis is placed on singing expressively, producing good choral tone, and sight-singing independently. Music is age-appropriate and chosen to challenge and inspire students, while encompassing a variety of styles. Students may elect to take Chorale or General Music. This course is taught in English.

Computer Science

Starting in 2018-19, FASNY students will be introduced to Code.org's Computer Science Discoveries (CSD) course, which has been designed with middle and high school students in mind and is fully aligned with CSTA and ISTE standards. Three important modules of the CSD curriculum are:

1. Web Design: Students learn the basics of HTML and CSS. They start to see themselves as programmers and are encouraged to think deeply about sharing and using content. At the conclusion of this module, students will be publishing their personal webpages.
2. Game Lab: This is a programming environment for developing animations and games using JavaScript. This unit integrates math and geometry with programming constructs, while simultaneously allowing students to exercise and display their creativity.
3. App Lab: Students learn how to use the power of their programming skills to create apps to solve personal and

broader social problems.

Students work on a different module in seventh, eighth, and ninth grades. Skills learned as part of the Computer Science Discoveries course pave the way for Computer Science Principles courses.

English 8 Native Level

The theme for this course is the individual in society. The literature studied presents the individual as he or she is faced with ethical and moral dilemmas and issues of social justice, law, and governance. Texts used include *Fahrenheit 451*, *To Kill a Mockingbird*, *Animal Farm*, *Lord of the Flies*, *Julius Caesar*, and *A Tale of Two Cities*. The reading may also include selected short stories, essays, and poems. Aside from the study of vocabulary in context, the workbook *Vocabulary for the College-Bound Student* is used. The grammar and writing text used is Holt's *Elements of Language, 4th Course*. This course is taught in English.

English 8 for Non-Native Speakers (Advanced English Language Learners)

As with the Native eighth-grade English course, the theme for Advanced ELL is the individual in society. The literature we study presents the individual as he or she is faced with ethical and moral dilemmas and issues of social justice, law, and governance. We begin the year with selected short stories, essays, and poems. Depending on the level of English proficiency, additional texts may include original, redacted, or leveled versions of the following: *The Declaration*, *The Importance of Being Earnest*, *To Kill a Mockingbird*, *Animal Farm*, *A Tale of Two Cities*, and *Julius Caesar*. Aside from the study of vocabulary in context, the workbook *Wordly Wise 3000*,

Book 8 is used. Our grammar text is Warriner's *Elements of Writing*. This course is taught in English.

English 8 ELL (English Language Learners)

As most students arrive in grade 8 with prior English as a foreign language instruction, they have a beginning basis of grammar. The curriculum is therefore designed to build upon these skills of grammar and reading. As with other ELL classes, students are continually taught correct word usage, pronunciation, writing skills, and higher-level vocabulary. Texts used in this course include *The Elements of Grammar*, *Share Your Paragraph: An Interactive Approach to Writing*, and *A Year in the Life of an ESL Student: Idioms and Vocabulary You Can't Live Without*. Literature studied includes *The Miracle Worker* by William Gibson, *Short Stories Collections: Surprises*, and poetry by Robert Frost, Emily Dickinson, and similar American poets. This course is taught in English.

French

Eighth grade is the central year of Cycle 4. Students develop their critical thinking and reinforce their oral and written linguistic skills through the study of different literary genres and artistic forms. This course is articulated around the following themes:

1. Knowing Yourself
2. Being an Active Member of Society
3. Developing a Creative Outlook
4. Changing the World

Students enrich their knowledge through interdisciplinary projects. This French course is taught at a native level.

German II

This course focuses on the basics of German grammar, specifically cases and the indicative form. The course aims to develop linguistic, oral, and written communication. Students acquire vocabulary necessary to have a simple conversation and learn about the holidays in German-speaking countries.

History and Geography

Students learn about the history of the 18th and 19th centuries. The geography portion of the course focuses on globalization. Students learn to use maps, images, texts, and artistic works, as well as practice writing an argument. This course is taught in French.

Latin I (Elective)

Students continue to develop their Latin language skills and cultural knowledge by studying original texts. The course is based on a constant dialogue between the ancient and contemporary worlds and organized around three themes: From Legend to History, Public Life/Private Life, and the Ancient Mediterranean World. This course also includes notions of ancient Greek culture and language. This elective course is taught in French.

Mathematics

Eighth-grade students learn how to multiply or divide signed numbers and fractions, how to compute with positive or negative exponents, and how to transform algebraic expressions. They also study linear equations and inequalities (which they use in problem-solving), proportionality (including graph), percentages and rates, and weighted averages in statistics. Euclidean geometry

contributes to developing in students the ability to use logic and deductive reasoning, as students are trained to write detailed proofs in the process of solving problems. Topics covered include the Thales theorem and the Pythagorean theorem, right angles and circles, distance and circle problems, cosine of an acute angle, dilations and reductions, and area and volume of pyramids and cones. This course is taught in French.

American Math 8 - Algebra I

This course is equivalent to an American grade 9 course. It is intended for the most advanced grade 8 students who are looking for an added challenge. Topics covered include real numbers (rational and irrational) and their operations and properties, algebraic expressions and open sentences, first-degree equations and inequalities in one variable, operations with algebraic expressions, ratio and proportion, geometric figures, areas and volumes, trigonometry of the right triangle, graphing linear functions and relations, writing and solving systems of linear equations, special products and factors, operations with radicals, quadratic equations and functions, algebraic fractions, probability, and statistics. This course is taught in English.

N.B.: Students can take Algebra I through one of two paths for eighth and ninth grades, as determined by the math department:

1. a two-year Algebra IA/Algebra IB
2. a two-year Algebra I/Geometry

Music

Students in this course are introduced to the development of Western music as well as the medieval period through Beethoven. Students also explore the

historical timeline of music through chant, polyphony, homophony, sonata form, and symphonies using sound recordings and research of prominent figures and compositions of each period. Students may elect to take Chorale or General Music. This course is taught in English.

Physics and Chemistry

In eighth grade, the physics and chemistry courses follow precisely the curriculum of the French Department of Education. The curriculum is divided into four components:

- *Energy and Conversion:* Kinetic and gravitational potential energy, energy efficiency of mechanical-mechanical converter, notion of power, design of experiments on fundamental laws of electricity (for current and voltage)
- *Structure and Transformation of Matter:* Matter change of states (microscopic analysis in homogeneous mixture case), states changing temperature, dissolution, solvent and solute notion, notion of saturation of a solute in a solution, notion of density, chemical equations, stoichiometric relationships, chemical symbols, chemical compounds, periodic table, understanding of the origin of matter, distance units of measurement (International system of units, light years, etc., and conversion of the same)
- *Motion and Interaction:* Mechanical action, notion and modelling of force (arrow, vector), deepening on average speed for uniform motion
- *Signals of Communication and Observation:* Deepening on ray model of light

Physical Education

Students begin to train and compete with an idea of improving individual skills and endurance during team and individual sports. Sport evaluations and grades are based on comprehension and execution. Healthy living habits are reinforced with an emphasis on nutrition and exercise. Sports include gymnastics, aerobics, volleyball, basketball, field hockey, ultimate Frisbee, golf, softball, baseball, swimming, and ice-skating. This course is taught in English.

Social Studies (All Levels)

This class introduces students to early United States history, from pre-colonial times to the pre-Civil War era. The first third of the course looks carefully at the internal struggles the settlers faced in creating new societies that maintained their old ways of life, while attempting to eliminate the problems they endured in Europe. The middle third of the course focuses on the concept of "forming a nation." The final third of the course looks at the early and tumultuous years of the United States of America. Students are expected to begin mastering the skill of note-taking as well as to begin developing advanced research and writing skills. In addition, many classes are taught in a discussion format to encourage students to look at a situation with a critical eye. Students in the Native-level course will also develop their research and analytical skills through a research paper. During the spring, the students take an extended field trip to study in and around Colonial Williamsburg, the premier living museum of America's colonial era.

Spanish II

In grade 8, students continue taking Spanish as a second language. The class meets three hours a week. Through thematic topics of daily life (presenting oneself, describing one's family, one's friends, one's activities), the Spanish program follows a progression that combines pragmatic goals (asking questions, getting and giving directions), linguistic objectives (the present tense, the subjunctive mode, the past and future tenses, the use of pronouns and prepositions), and cultural awareness (discovering the Hispanic world, its music, art, holidays, traditions, recipes). In order to be able to communicate fully, students learn to listen, understand, speak, converse, read, and write in the target language.

Spanish 8 for Native Speakers

This course is intended for Native and near-Native speakers of Spanish and is taught only in Spanish. Students typically have little need to review grammar or vocabulary and learn, instead, more complex and sophisticated aspects of the language—in both speaking and writing. Students analyze literary texts and also research different aspects of the Spanish-speaking world, developing comparisons to better understand and appreciate the various cultures. They read and discuss novels such as *Sin noticias de Gurb*. They watch movies relating to the literature, culture, and history of Spanish-speaking countries. This course meets two times a week.

NINTH GRADE

In ninth grade, students choose to follow either the French-American track or the newly developed International track, in which mathematics and sciences are taught in English. Many ninth-grade courses continue to co-seat students together, regardless of track. Track-specific courses are designated below, next to the course name.

Art 9

Projects assigned in the ninth grade build upon the skills developed in the sixth, seventh, and eighth grade art curricula; the principles of art are reviewed as students are introduced to more materials and techniques. Some assignments provide students with only a few rules pertaining to theme, size, and attention to detail or three-dimensional appearance, thereby fostering the students' artistic license and requiring them to pursue their own vision. Other projects, such as a large still-life, are a culmination of the study of composition, light and shading, perspective, and the rendering of three-dimensional forms. This course is taught in English and mandatory for all ninth graders.

Art Option 9 (Elective)

This elective course builds upon skills taught in the required art curriculum, while allowing students greater creative freedom than in the required art classes. Projects often draw inspiration from diverse cultures and artists, exposing students to a variety of creative expressions. These range from mask-making to designing

shoes, but all—whether in form-making, patterning, color theory, or abstraction—reinforce the core required art curriculum of that grade. This course is taught in English.

Biology 9 (French-American Track)

The program is organized around four core topics. In the Human Diversity and Unity topic, students study the origin of an individual's characteristics, the origin of human diversity, chromosomes, and genetic information (DNA). Human Evolution and History of the Earth focuses on the early formulation of the theory of evolution of living things through geologic time (genetic explanations, natural selection, mass extinctions, and classification of living things). The Infectious Disease and Protection of the Organism component of the course leads students to understand the way the body reacts to contamination (immune system, AIDS, and allergies). Finally, the course includes a study in Human Responsibilities in Health and Environmental Issues. This course is taught in French.

Chorus

This advanced chorale course continues to develop skills introduced in previous chorale courses. In addition to proper vocal technique, further emphasis is placed on singing expressively, producing good choral tone, and sight-singing independently. Music is age-appropriate and chosen to challenge and inspire students, while encompassing a variety of styles. Students may elect to take Chorus 9 or Music 9. This course is taught in English.

Computer Science

Starting in 2018-19, FASNY students will be introduced to

Code.org's Computer Science Discoveries (CSD) course, which has been designed with middle and high school students in mind and is fully aligned with CSTA and ISTE standards. Three important modules of the CSD curriculum are:

1. Web Design: Students learn the basics of HTML and CSS. They start to see themselves as programmers and are encouraged to think deeply about sharing and using content. At the conclusion of this module, students will be publishing their personal webpages.
2. Game Lab: This is a programming environment for developing animations and games using JavaScript. This unit integrates math and geometry with programming constructs, while simultaneously allowing students to exercise and display their creativity.
3. App Lab: Students learn how to use the power of their programming skills to create apps to solve personal and broader social problems.

Students work on a different module in seventh, eighth, and ninth grades. Skills learned as part of the Computer Science Discoveries course pave the way for Computer Science Principles courses.

English 9 Honors

This will be a challenging high school literature course. Students will study a wide range of texts and genres within American literature from the 17th century to the present, covering fiction, poetry, drama, nonfiction, and film. Students will have many opportunities to improve their writing through diverse expository and narrative formats. They will also practice their oral presentation skills through a variety of assignments, ranging from debates to dramatic monologues! Moreover, there will be a wide range of creative assignments. Finally, students will engage in early preparation for the PSAT exam

through the use of vocabulary development (*Wordly Wise*) and regular attention to grammar through frequent writing practice. The texts and authors covered include, but are not limited to, *Slaughterhouse-Five* by Kurt Vonnegut, "Of Plymouth Plantation" by William Bradford, "Young Goodman Brown" by Nathaniel Hawthorne, *The Catcher in the Rye* by J.D. Salinger, "The Declaration of Independence" by Thomas Jefferson, *The Great Gatsby* by F. Scott Fitzgerald, essays by Emerson and Thoreau, "Song of Myself" by Walt Whitman, *Into the Wild* by Jon Krakauer, poetry of the Harlem Renaissance, *A Raisin in the Sun* by Lorraine Hansberry, and *A Confederacy of Dunces* by John Kennedy Toole. This course is taught at a native level.

English 9 - Advanced English Language Learners (French-American Track)

This is a flexible class taught in English because its goal is twofold: to act as a transition for students recently in ELL and to serve as a bridge to prepare them for regular English as soon as possible. The curriculum begins with direct vocabulary instruction, as provided through their *Wordly Wise 3000, Book 9*, to further their understanding of new words and concepts. Pronunciation is also a focus, as the course hopes to develop confidence in the students' spoken English. Intermediate English 9 mainly promotes reading comprehension and the skills of writing about American literature critically using the following works: *The Curious Incident of the Dog in the Night-Time*, *The Absolutely True Diary of a Part-Time Indian*, *A Raisin in the Sun*, and *Fahrenheit 451*. Film versions of novels/plays studied will help students with understanding the role of adaptation of artistic works. American contemporary short stories begin the year as students start to feel comfortable with reading critically and closely. For the same reason, a unit looking at the

poetry of Naomi Shihab Nye and Langston Hughes will be presented in the early days of the course. Nonfiction works are utilized as students' research and technology skills are developed.

English 9 - English Language Learners (French-American Track)

As most students arrive in grade 9 ELL with prior English instruction, they have a beginning basis of grammar. The curriculum is therefore designed to build upon these skills of grammar, writing, and reading. As with other ELL classes, students are continually taught correct word usage, grammar, pronunciation, writing skills, and higher-level vocabulary. Texts used in this course include graphic novels such as *March* by John Lewis as well as versions of Mark Twain's *Huckleberry Finn* and Charles Dickens' *Great Expectations* and the novel *War Horse* by Michael Morpurgo. *Azar's Understanding and Using English Grammar* is used to improve sentence structure and usage. Poetry by Langston Hughes is analyzed, as are Emily Dickinson's very short poems. Short stories by Gary Soto and Ray Bradbury also help to develop reading comprehension. This course is taught in English.

European History and World Geography I (French-American Track)

This history course covers the period from 1914 to the present day. The geography portion of the course focuses on France and the European Union. Students are asked to think critically when analyzing documents. They are expected to write a page-long essay using their personal knowledge as well as information presented in a variety of documents. The civics education portion of the course exposes students to questions related to citizenship as

they study current events in today's world. This course is taught in French.

French 9 Literature and Composition Honors (French-American Track)

The ninth-grade French course completes the program of the fourth cycle by developing four main themes:

1. Knowing Yourself (autobiography)
2. Being an Active Member of Society: Individuals and Power (theater)
3. Developing a Creative Outlook (poetry)
4. Changing the World (science fiction)

This is also the final year for students to prepare for the oral and written French national exam, le Brevet National des Collèges. Students reinforce and deepen their language skills. The course covers a variety of literary genres and different texts, emphasizing self-expression, the ability to argue, science fiction, and media literacy. The course allows students to make connections with other subjects through artistic, historical, and philosophical questioning. This French course is taught at a native level.

French 9 (International Track)

The new ninth-grade international track French course is organized around four major themes and one supplemental inquiry:

- Personal Discourse and Self-Presentation
- Social Criticism
- Agency and Power in Urban Settings
- Poetic Views of the World
- Supplemental Inquiry: Dreams and Progress in Science

Students will develop their oral and written skills. Evaluations will include oral and written work and examinations similar to that of the French-American track French course.

German III

Students in this course are expected to expand their grammar, including verbs in the indicative and subjunctive forms, passive and active voice, and complex sentences, to gain a better understanding of the language. They also learn the history of Germany from 1933 to 1990.

Language Acquisition: French or Spanish (International Track)

In this course, students will be introduced to the study of either the French or Spanish language within a cultural context; the emphasis will be on the development of all four communication skills of reading, writing, speaking, and listening through the learning of language mechanics. The one-year course will be articulated around global themes such as:

- Individuals and Society: daily routines, education, food and drink, personal details, appearance and character, physical health, relationships, shopping
- Leisure and Work: employment, entertainment, holidays, media, sport, technology, transport
- Urban and Rural Environment: environmental concerns, global issues, neighborhood, physical geography, town and services, weather

Grades for this course will be determined by class participation and oral presentations, written quizzes and exams, homework assignments, and the reading of a

variety of documents, including visuals.

The Common European Framework of Reference [CEFR] defines levels of proficiency that allow learners' progress to be measured at each stage of learning and on a life-long basis. It describes in a comprehensive way what language learners have to learn in order to use a language for communication and what knowledge and skills they have to develop so as to be able to communicate effectively. The description also covers the cultural context in which language is set. The framework defines levels of proficiency as follows: A1 - Beginner; A2 - Elementary; B1 - Intermediate; B2 - Upper Intermediate; C1 - Advanced; C2 - Mastery. At the end of ninth grade, students should reach the A2 (Elementary) level.

Latin II (Elective)

Students expand their learning of the Latin language and culture. At the end of ninth grade, students will have mastered enough essential grammatical skills (morphologic and syntactic) to understand and translate a short and accessible Latin text. They also will be able to put a literary text into its historical and cultural context. Four themes are being studied: From the Republic to the Principate; The Roman Empire; Familial, Social, and Intellectual Life; and the Mediterranean World (especially the relationship between Rome and Greece). This course also includes notions of ancient Greek culture and language. This elective course is taught in French.

Mathematics 9 (International Track)

This course will prepare students for the IB Mathematics Higher Level and Standard Level Diploma Program. In grade 9, the focus is on the concepts of number, algebra,

and coordinate geometry at the core and extended levels. Objectives:

- to encourage the development of mathematical knowledge as a key life skill, and as a strong basis for more advanced study
- to build learners' confidence by helping them to develop competence and fluency with mathematical concepts, methods, and skills, as well as a feel for numbers, patterns, and relationships
- to place a strong emphasis on solving problems and presenting and interpreting results
- to gain an understanding of how to communicate and reason using mathematical concepts

Integrated Mathematics 9 (French-American Track)

As in previous grades, this course has three objectives: to reinforce and extend the knowledge acquired in previous grades, to enable students to use specific mathematical methods and ways of thinking, and to develop the ability to use mathematics in everyday life and in other disciplines.

Topics covered include an introduction to functions (generalities and graphs), the linear and affine functions, and the slope formula; mean, median, and quartiles in statistics; an introduction to probability; computations with square roots; algebra (factoring and distributing); linear equations and inequalities; and systems of two linear equations. Topics in geometry include trigonometry in a right triangle, the Thales theorem, dilation and reduction, inscribed angles, regular polygons, sections of solids (prisms, cylinders, cones, and spheres), and areas and volumes. This course is taught in French.

American Math: Geometry (French-American Track Elective)

This course is equivalent to an American grade 10 course. Topics covered include essentials of geometry, logic, proving statements in geometry, congruence of line segments, angles and triangles, transformations and the coordinate plane, geometric inequalities, slopes and equations of lines, parallel lines, quadrilaterals, the geometry of three dimensions, similarity, geometry of the circle, locus, and construction. This course is taught in English. Except in rare cases, Algebra I is a prerequisite.

American Math: Algebra IB

This is the second year of the Algebra IA/IB course. It is designed for students who took Algebra IA in grade 8.

Music 9

Students continue their studies of Western music and begin learning about the Romantic era through the 20th century. They also study modern classical music, jazz, and popular forms such as rock-and-roll using listening examples, sound recordings, and research of notable figures and compositions. Students may elect to take Chorus 9 or General Music. This course is taught in English.

Physical Education

Students begin to understand the importance of physical skills improvement relevant to a chosen sport. They learn good practice habits and are encouraged to engage in as many activities as possible. Sports include aerobics, street hockey, gymnastics, badminton, golf, and indoor tennis. This course is taught in English.

Physics and Chemistry 9 (French-American Track)

In the ninth grade, the physics and chemistry courses follow precisely the curriculum of the French Department of Education. The curriculum is divided into four components:

- *Energy and Conversion:* Use of mathematical relation of kinetic and gravitational potential energy, use of mathematical relation of power, law of conservation of energy, Ohm's law, residence energy consumption calculation
- *Structure and Transformation of Matter:* Deepening of balancing chemical equations, acid-base character of substance, notion of ionic compound, pH measurement (hydrogen ions), chemical reaction between acid solution and metals, order of magnitude of the universe, universality of scientific laws in the universe
- *Motion and Interaction:* Newton's gravitational law, weight, gravity
- *Signals of Communication and Observation:* Acoustic signal, propagation of sound properties, notion of frequency, infrasound and ultrasound, use of light or sound for information transmission

Sciences in the International Track

All students in the International track will take chemistry, biology, and physics over the course of two years. In ninth grade, students take two trimesters of chemistry and one trimester of biology. In 10th grade, they take a second trimester of biology and two trimesters of physics:

Chemistry:

Course Objectives:

- Encourage a wider interest in chemistry as a science and promote the understanding and relevance of that science in our daily lives.
- Develop the student's ability to properly use different experimental techniques that help observe, analyze, and interpret chemical reactions in the laboratory.
- Equip our students with the necessary knowledge and skills that will help them succeed in their future studies.

Course content includes measurement and data processing, the particulate nature of matter, atomic structure and the Periodic Table, stoichiometry, chemical reaction rates, redox, and organic chemistry.

Biology:

The course focuses on developing a broad general understanding of biology by expanding students' understanding of how science works and is applied to acquire knowledge about the natural world.

Course Objectives:

- Acquire and demonstrate knowledge and understanding of scientific facts, concepts, and techniques.
- Develop scientific investigation skills through inquiry-based laboratory work.
- Analyze and evaluate data, techniques, and scientific explanations.
- Communicate effectively through the language of science.
- Develop awareness for accuracy, precision, objectivity, and integrity.
- Recognize the utility, ethical considerations, and limitations of science.

Course content includes laboratory skills, the organization

of life, biochemistry, cell structure and function, photosynthesis, reproduction and development, genetics, evolution, homeostasis in organisms, ecology, biodiversity, and the positive and negative human impact on the environment.

Physics:

Course Objectives:

- Acquire a foundation of knowledge and skills to prepare for success in IB Physics.
- Develop scientific investigation skills through hand-on practical work.
- Learn to analyze data and present it effectively.
- Recognize the usefulness and limitations of science in society and everyday life.

Course content includes measurement, sources of uncertainty, data collection, forces and motion, Newton's laws, energy, power, "work," thermal physics, waves, electricity, and electric circuitry.

These courses will prepare students for the IB Biology Diploma Program.

Spanish III

In grade 9, students review the material covered in the previous year, such as the present tense and the different types of verbs (reflexive, stem-changing, irregular conjugations). Linguistically, they enrich their vocabulary as well as their verb tenses (the subjunctive mode, the past and future tenses) in order to describe their plans, give commands, express a possibility or a doubt, and make hypothetical statements. Through a variety of oral exercises (dialogues, role-play, presentations), students work on their speaking and conversation skills. They also improve their reading and

writing abilities through topics ranging from their family and friends to their preferences and habits. Students continue to explore the culture of different Spanish-speaking countries, notably through artistic masterpieces. The course meets three times a week.

Spanish 9 for Native Speakers

This course is intended for native and near-native speakers of Spanish and taught only in Spanish. Students are exposed to an array of Spanish and Latin American readings by writers such as Gabriel García Márquez. The students study the culture of Spanish-speaking countries—including aspects of geography, politics, gastronomy, traditions, music, and cinema. This course meets three times a week.

United States History I (French-American Track - Native Level)

This course covers United States history from the pre-Civil War era to the Great Depression. The first third of the course is an in-depth study of the issues that resulted in the Civil War, the Civil War, and the Reconstruction Era that followed. The middle third of the course explores the changing world due to the Industrial Revolution and the immigration policies that developed in the United States as a result. The final third of the course builds on the earlier themes as the nation moves into the 20th century and becomes a major player on the world stage. Students are expected to master note-taking during classes taught in a primarily discussion format. Students will also develop their research and analytical skills through a research paper. This course is taught in English at the native level.

United States History I (French-American Track - AELL and ELL)

Students gain an understanding of the changes that took place in the United States from the eve of the Civil War to the eve of World War II and learn to identify the key individuals and events that were agents of those changes. They work to develop writing, research, and critical-thinking skills as tools to analyze the transformations that took place during this period in the nation's history. Students also practice public speaking by participating in class discussions and giving oral presentations, and will develop their research and analytical skills through a research paper. This course is taught in English at an AELL-to-ELL level, as needed.

TENTH GRADE

Art I (Elective)

Using a problem-solving approach, students will improve their drawing skills, gain a deeper understanding of color, and learn to organize more meaningful compositions. Students will create drawings, collages, prints, paintings, and sculptures in order to communicate personal ideas and solve visual problems. One important area of focus involves the depiction of pictorial space. Overlapping, linear, and atmospheric perspective and the rendering of volumes will be explored—to equip students with the tools they need to construct pictorial space with clarity and confidence. Students will undertake both in-class and out-of-class projects. They will benefit by discussing their works during class critiques. In addition, they will begin

to build a portfolio that shows the range, depth, and quality of their artistic knowledge. This course is taught in English.

Biology / Earth Science

The program aims to build common scientific knowledge and develop critical thinking and social awareness. It is structured around three major themes: The Earth in the Universe, Life, and the Evolution of Living Things; Contemporary Global Issues (Energy and Soil); and The Human Body and Health. The course is taught in French.

Chorale 10 (Elective)

This advanced Chorale course continues to develop skills introduced in previous chorale courses. In addition to proper vocal technique, further emphasis is placed on singing expressively, producing good choral tone, and sight-singing independently. Music is age-appropriate and chosen to challenge and inspire students, while encompassing a variety of styles. This course is taught in English.

Economics and Social Sciences

This course has an exploratory curriculum that seeks to expose high school students to the knowledge of new disciplines they have not encountered in their prior studies. The course aims to provide all students with the principles of economic and sociological knowledge essential to the education of all citizens who seek to understand the workings of the economy and society in which they live; to enable students to discover a new academic discipline and help them make enlightened decisions regarding their 11th- and 12th-grade education; and to provide students with some essential

concepts and ways of thinking about economics and sociology that will facilitate their studies as high school juniors and seniors and, later on, at the university level. This course is taught in French.

English 10 Honors

This course is a survey of world literature and philosophy. It begins with a study of the epic, including *Gilgamesh*, Homer's *Iliad*, and Virgil's *Aeneid*. The concentration on ancient Greek literature also includes a close reading of *Oedipus Rex* and an examination of tragedy. The year continues with excerpts from Dante's *Inferno* and a close reading of Shakespeare's *Macbeth* and Milton's *Paradise Lost*. The course concludes with a reading of contemporary works, including selected stories from Phil Klay's *Redeployment* and Ta-Nehisi Coates's *Between the World and Me*. Throughout the year, the works are examined in light of key philosophers of the Western world, such as Plato, Aristotle, Descartes, and many others, using Kolak's *Lovers of Wisdom* as a basic text. This English course is taught at a native level.

English 10 for Non-Native Speakers (Advanced English Language Learners)

This is a flexible class taught in English because its goal is twofold: to act as a transition for students recently in ELL and to serve as a bridge to prepare them for regular English as soon as possible. The curriculum begins with direct vocabulary instruction, as provided through their *Wordly Wise 3000, Book 10*, to further their understanding of new words and concepts. Pronunciation is also a focus, as the course hopes to develop confidence in the students' spoken English. Intermediate 10 mainly promotes reading comprehension and the skills of writing about world literature critically using the fictional works

Of Mice and Men by John Steinbeck, *The Kite Runner* by Khaled Hosseini, *The Fifth Child* by Doris Lessing, and Shakespeare's *Romeo and Juliet*. Film versions of novels/plays studied will help students with understanding the role of adaptation of artistic works. Global and contemporary short stories begin the year as students start to feel comfortable with reading critically and closely. For the same reason, a unit looking at the poetry of Naomi Shihab Nye will be presented in the early days of the course. Nonfiction works are utilized as students' research and technology skills are developed. A unit co-taught with FASNY's librarian helps students to work with various books, journals, and historical articles on the American Great Depression and Afghanistan. This course is taught in English.

English 10 ELL (English Language Learners)

As most students arrive in grade 10 ELL with prior English instruction, they have a beginning basis of grammar. The curriculum is therefore designed to build upon these skills of grammar, writing, and reading. As with other ELL classes, students are continually taught correct word usage, grammar, pronunciation, writing skills, and higher-level vocabulary. Texts used in this course include graphic novels such as *Gulliver's Travels* by Jonathan Swift and the adapted novel (Peter Kuper), as well as *The Metamorphosis* by Franz Kafka. Azar's *Understanding and Using English Grammar* is used to improve sentence structure and usage. Poetry by Mary Oliver is analyzed, and for dramatic literature we read an abridged version of Shakespeare's *Romeo and Juliet*. Short stories by Hemingway and Bradbury also help to develop reading comprehension. This course is taught in English.

European History and World Geography II

In the history portion of the course, students study several key moments in history, including citizenship in Athens and Rome, medieval European societies (11th-13th centuries), the Renaissance, the French Revolution, and the revolutionary movements in Europe in the first half of the 19th century. The geography portion focuses on the study of sustainable development. Several themes are used to provoke a deeper conversation about the subject, including how humans can share the wealth of the earth, the plausibility of feeding the entire planet, how we should manage our water resources, and, finally, urban life and sustainable development. This course is taught in French.

French 10 Literature and Composition Honors

This course is the first in a two-year sequence focused on the content and exercises required for the oral and written Baccalaureate exam in French, which students take at the end of 11th grade. Theater, the novel, and persuasive essays are some of the main themes studied in the context of selected classics of French literature, with a focus on the 17th century. Students are trained in analytical reading and writing, the crafting of literary commentaries, creative writing, and essay writing. This French course is taught at a native level.

German IV

Students study literary texts (both poetry and prose) and are asked to explain the grammatical structures of the texts, as well as initiate discussions. Another key theme of this course is music, which covers Bach through current rap. This course is taught in German with some grammatical explanations in French.

Integrated Mathematics 10

Topics covered in this course include number sets and their properties, as well as variations and graphing of the following functions: linear, reciprocal, quadratic, homographic, and trigonometric. Also, algebraic and rational expressions, factoring, and algebraic and graphic resolution of nonlinear equations and inequalities.

Statistics and probability: measuring central tendency and dispersion, frequencies distribution, simulation, and sampling and range of fluctuations. Sample space, events, equiprobable spaces, finite probability spaces, intersection, and union of events. In Euclidean geometry, emphasis is placed on training in logical reasoning with plane and space properties: plane configurations, straight lines and planes in 3D, parallelism, intersection of solids by a plane, areas, and volumes. In analytic and vector geometry: equation of a line, vectors (coordinates, sum, difference, multiplication by a real number), and systems of linear equations. Algorithms: basic (variables, input, output, expressions, functions), conditional statements, iterative loops, pseudo-code. Application: programming with the TI 84 or using a language like Python or Scilab. Set-mathematical notation and logical reasoning (connectors, negation, truth tables, propositions, logical implication). Graphing calculator, geometry software. This course is taught in French.

American Math 10 Advanced / Algebra II (Elective)

Algebraic Methods: fractional exponents, operations with algebraic fractions, fractional and radical equations.

Functions: composing two functions, inverse of a function and its graph.

Circles: inscribed angles, measuring angles, finding chord, tangent and secant-segment lengths.

Transformations: line symmetry, rotation, translation, dilation, composing transformations, reflecting and rotating using coordinates.

Trigonometry: functions, identities, equations, formulas, solving triangles. This elective course is taught in English.

Latin III (Elective)

Students study the Roman world through three central themes: The Roman Citizen, the Roman World; Mare Nostrum; and Mythological and Heroic Figures. Texts highlight the essential aspects of the political, historic, moral, literary, and artistic cultures of the times. Syntax and morphology are strengthened in this course, and students are expected to expand their vocabularies using a Latin-French dictionary as a resource. Connections with other texts from the French and English curricula are made as often as possible. This course also includes notions of ancient Greek culture and language. This elective course is taught in French.

Literature and Society (Elective)

The purpose of this research-oriented course is to showcase the benefits of a humanities-based education by focusing on themes prevalent in literature and social studies. Students explore two or three themes taken from the following six: Writing to Change the World: The Role of Writers in the Major Social Issues; From Clay Tablets to Digital Screens: The Saga of the Book and the Written World; Image and Language: Showing and Being Heard; Stakes and Outlook for Media, Information, and Communication; Public Speaking: From the Agora to the Online Forum; and Perspectives on Others and on Other Places. This French elective course is taught at a native level.

Physical Education

Students are introduced to the French physical education program. This program requires a proficiency in at least two team sports and one individual sport. Students are made aware of the physical requirements for good evaluations and given the instruction necessary to improve skills and techniques to achieve maximum results. Sports offered may include, but are not limited to, endurance running, volleyball, basketball, badminton, dance, running relay, soccer, orienteering, rock-climbing, and lifeguard-training. This course is taught in English.

Physics and Chemistry 10

The physics and chemistry course in 10th grade is organized around three themes: Health, Practicing Sports, and The Universe. Health covers the fundamentals of medical diagnosis and medication. Observation of results builds notions of concentration and chemical types, as well as reflections on the constitution and structure of matter. The unit on Practicing Sports deals with the study of movement, the concept of pressure, materials, and molecules involved in the practice of a sport, and the needs and responses of the body. The Universe unit spans large cosmic structures to the structure of matter, including stars, planets, and the solar system; this approach provides a coherent general overview of the subject matter. This course is taught in French.

Public Speaking (Elective)

This bilingual course prepares students to speak publicly before a variety of audiences and on a broad range of topics, as they will need to do during their adult and professional lives. Topics include "Why do we laugh?";

"Should people have the right to smoke in public?"; "Someone I admire"; "My future career"; and free subjects. Students give speeches once a fortnight, on average, alternating between English and French.

Spanish I (Elective)

Students in grade 10 can choose to start Spanish as a third language (LV3). The course meets three days a week and follows the beginner's program of Spanish in accordance with the French Ministry of Education. Through thematic topics of daily life (presenting oneself, describing one's family, one's friends, one's activities), the students follow a progression that combines pragmatic goals (asking questions, getting and giving directions), linguistic objectives (the present tense, the subjunctive mode, the past and future tenses, the use of pronouns and prepositions), and cultural awareness (discovering the Hispanic world, its music, art, holidays, traditions, recipes). In order to be able to communicate fully, students learn to listen, understand, speak, converse, read, and write in the target language.

Spanish IV

In grade 10, students are given ample opportunities to review and solidify grammar and vocabulary basics. They are also asked to deepen their mastery of the language through the study of various authentic documents: visual texts (literature, cartoons, advertisements) and audio-visual materials that expose students to the different accents of the Spanish-speaking world as well as the diverse cultures within it.

Students are challenged to enrich their expression as they continue to communicate through comprehension, speaking, reading, and writing when grappling with more

mature, complex world topics. The course meets three days a week.

Spanish 10 for Native Speakers

This course is intended for native and near-native speakers of Spanish and taught only in Spanish. Students delve into different texts from Spanish and Latin American writers such as Arturo Pérez Reverte and Juan Rulfo. Students read and discuss several books. They also watch and analyze films relating to the literature, culture, and history of Spanish-speaking countries. Some students may choose to take the Spanish Language AP (Advanced Placement) exam. The course meets three times a week.

Science and Methodology (Elective)

This hands-on course gives students an opportunity to discover different fields of physics, chemistry, biology, and Earth science. In this project-based course, students choose two or three themes to investigate, either on their own or as part of a team. They develop scientific protocols to confront real-world problems and then develop a means of effective scientific communication to convey findings (research reports, posters, slideshows, etc.). Two or three of the following themes will be studied throughout the year: science and food, science and cosmetology, science and works of art, science and the prevention of risks of human origin, science and worldview, and forensics. This course is taught in French.

United States History II (All Levels)

This course covers United States history from the Great Depression through the beginning of the 21st century. The first third of the course is an in-depth study of the

emergence of the United States as a global hegemon. The middle third of the course explores the economic and social issues and challenges that the United States faced during the 1960s and 1970s. The final third of the course deals with the rise of the conservative movement, the end of the Cold War, and the United States' place in the New World Order. Throughout the course, students will continue to develop their familiarity with historical data and geopolitical terminology. Students will also hone their research and analytical skills through a research project. Texts include *American Odyssey: The United States in the 20th Century*; *When the Emperor Was Divine* by Julie Otsuka; *Nickel and Dimed, On (Not) Getting by in America* by Barbara Ehrenreich; documentaries; and primary sources. This course is taught in English at the native level.

World History (International Track)

FASNY's ninth-grade World History course will provide the foundation for the IB Diploma program history course and, with 10th-grade U.S. History, offer students the skills and content they need to carry them into their post-secondary studies. The curriculum is designed to increase students' understanding of themselves and of contemporary society by encouraging an informed and balanced reflection on the past. In this, the course fosters the international-mindedness central to FASNY's educational mission and the IB philosophy. The course illustrates and explores the six key concepts of history in the IB: change, continuity, causation, consequence, significance, and perspective. Content is organized thematically and chronologically, emphasizing the patterns and connections of human interaction across cultures from the early modern period to today. Case studies from different regions encourage students to view topics from multiple perspectives. For example, they will

study the origins, development, and impact of the Industrial Revolution in Britain, as well as the development of industrialization in Japan and the mineral revolution in South and southern Africa. They will thus understand both the development of societies over a given period and how different groups experienced technological, social, and political developments through inter-regional connection.

ELEVENTH AND TWELFTH GRADES

In 11th and 12th grades, students choose to prepare for either the International Baccalaureate Diploma program or the French National Baccalaureate exam.

The French Baccalaureate is offered with a choice between two main tracks: the social sciences and economics-based track, ES, and the science-based track, S. Students in 12ES are asked to choose a concentration in Economics or Mathematics. Students in 12S are asked to choose a concentration in one of the following subjects: Biology/Natural Sciences, Mathematics, or Physics/Chemistry. Students in the French Baccalaureate whose English is at a native level have the possibility of taking the French Baccalaureate exam with the International Option (OIB). In addition to taking exams in French, these students also take parts of the Baccalaureate exam in English, which requires taking an English Literature Honors course and a History/Geography

Honors course taught in English.

Students in the International Baccalaureate Diploma Program must take the three core courses—Theory of Knowledge, Creativity/Activity/Service, and Extended Essay—as well as six classes balanced among the main areas of the curriculum (groups), offered at the Higher or Standard levels.

FRENCH BACCALAUREATE ECONOMICS AND SOCIAL SCIENCES (ES) TRACK

ELEVENTH GRADE ES TRACK

English 11 Honors OIB

This advanced, college-level reading and writing course is the first year of the two-year English OIB program. This course devotes a significant portion of study to an in-depth analysis of the various literary genres—fiction, poetry, drama, and nonfiction—as recommended by the International Option of the French Baccalaureate. In addition to studying a wide range of genres, students in the course will also work on developing their writing skills through a variety of writing activities, which include formal analytical essays, creative-writing pieces, and short responses.

Course texts include works from the 19th to the 21st centuries by authors from around the globe, and may include such works as *Frankenstein* by Mary Shelley, *Heart of Darkness* by Joseph Conrad, *A Streetcar Named Desire* by Tennessee Williams, *The Scarlet Letter* by Nathaniel Hawthorne, *Interpreter of Maladies* by Jhumpa Lahiri, *A Room of One's Own* by Virginia Woolf, *Stranger in the Village* by James Baldwin, and a selection of poems by Rita Dove. This course is taught at a native level.

English 11

The non-OIB English course, in addition to beginning the preparation for the English LV1 Baccalaureate exam, is a college-preparatory class for near-native English-speaking students who are interested in attending American or Canadian universities. It involves intensive work in improving aural/oral skills as well as reading and writing skills. Students strengthen these skills through the close reading and literary study of selected British and American literature, including novels, plays, short stories, and poetry. In addition to literary study, students practice their grammar and build their vocabulary through readings from contemporary media, traditional exercises, and an ACT preparation text. The literary texts and authors covered include *Fences* by August Wilson, *Brave New World* by Aldous Huxley, *Never Let Me Go* by Kazuo Ishiguro, the poetry of T.S. Eliot, and the short stories of Hemingway, Lovecraft, and Le Guin. This course is taught at a native level.

English 11 LV1 for Non-Native Speakers

This course involves intensive work on improving aural/oral skills as well as reading and writing skills, as students begin preparation for the English LV1

Baccalaureate examination. Students review English grammar combined with the Test of English as a Foreign Language (TOEFL), work on vocabulary development, and read a selection of British and American novels, plays, poetry, and nonfiction (essays, journalistic works, etc.). Texts and authors may include, but are not limited to, *Elements of Writing*, *Wordly Wise*, *Never Let Me Go* by Kazuo Ishiguro, *Anthem* by Ayn Rand, *Fahrenheit 451* by Ray Bradbury, *The Great Gatsby* by F. Scott Fitzgerald, and *The Maltese Falcon* by Dashiell Hammett. This course is taught in English.

Economics and Sociology 11 Honors

This course focuses on three central themes that connect all societies. Commercialism is examined from various perspectives, such as that of the household or business, and also through diverse economic activities such as production, consummation, financing, and the management roles played by both markets and governments. Students also study today's society from a social perspective by analyzing cultural phenomena, socialization, and the nature and scope of different social groups. The political theme focuses on the distinctions among the national state, the federal state, and government systems. This course is taught in French.

European History and World Geography III Honors

The history portion of the course begins with a study of economic growth, globalization, and social changes since the mid-19th century. Students then tackle the 20th century's main conflicts (the two World Wars and the Cold War) by positioning them in their respective conflicts, then study colonization and decolonization, and, finally, examine the relationship of the French people with the concept of Republic (from the Third Republic to

the Fifth Republic). In the geography portion of the course, the year begins with a study of local territories. Students then gain an in-depth knowledge of the French and European territories within the context of globalization. They also work on questions related to sustainable development. In both history and geography, students learn to analyze and interpret documents—such as press articles, cartoons, photography, maps, graphs, etc.—and to draft well-structured, well-written essays. This course is taught in French.

Modern World History and Geography I Honors OIB

This is the first course in a demanding two-year history/geography program that covers the global events and themes that have shaped the modern world.

In the history portion of this course, the topics covered include an introduction to economic and political theory, industrialization and the Dual Revolution, totalitarianism, war in the 20th century (including World War I, World War II, the Cold War, and post-Cold War conflicts), the independence struggles and subsequent challenges facing new states in Africa, the Middle East, and Asia, and the New World Order.

In geography, students are introduced to the concepts of globalization, the European Union and its role in a globalized world, the rise of global cities, and the phenomena of urbanization and immigration and the challenges that they pose.

In both history and geography, students develop their ability to analyze and interpret documents (press articles, cartoons, photographs, memoirs, maps, charts, etc.) and to write college-level essays. Students also hone their

research and writing skills through a research paper.

French 11 Literature and Composition Honors

This is the final French studies course for Secondary School students and culminates with students taking the Baccalaureate exam. The curriculum builds on themes first presented in the 10th grade, including essay writing, creative writing, and literary commentaries, and is based around the following topics: theater, poetry, applying the art of rhetoric to an investigation of human nature, and the novel. This course is taught in French at a native level.

Interdisciplinary Research Project

Students form research groups and collectively choose a subject to study from a list of official themes (issues of the environment, etc.). Subjects must stem from two main courses of the curriculum (economics and mathematics), and students are evaluated based on their group work. They are allowed a semester to conduct their research and present their work (written essay, video, website, etc.). Students then defend their work in front of a panel. This oral exam is part of the Baccalaureate. This course is taught in French.

Math: Calculus, Statistics, and Probability I

The areas of study covered in this course are:

- *Algebra and Analysis*: polynomials, quadratic equations and inequalities, quadratic function, parabola. Square root and cube functions: direction of variations and graph.
- *Calculus*: local and global study of functions, limit, derivative, direction of variations, extrema, tangent to the curve, derivative

- function, derivative of functions, derivative of sum, product, quotient of functions.
- *Percentage and Evolution*: successive changes, reciprocal evolution.
 - *Sequences*: sequences defined by an explicit formula, by a recursive formula, direction of variations, arithmetic and geometric sequences. Applications in finance: simple interest, compound interest.
 - *Statistics and Probability*: quartiles, deciles, box plot, variance and standard deviation of a statistical series. Random variable: probability distribution, expectation, variance, standard deviation, independent experiments, experiment of Bernoulli, binomial coefficients, binomial distribution, expectation of a binomial distribution, sampling, range of fluctuation.
 - *Algorithms*: basic (variables, input, output, expressions, functions), conditional statements, iterative loops, pseudo-code. Application: programming with the TI 84 or using a language like Python or Scilab. Set-mathematical notation, logical reasoning (connectors, negation, truth tables, propositions, logical implication), graphing calculator. This course is taught in French.

Math: Calculus, Statistics, Probability, and Finite Math I Honors

The topics covered in this mandatory program are:

- *Algebra and Analysis*: polynomials, quadratic equations and inequalities, quadratic function, parabola. Square root and cube functions: direction of variations and graph.
- *Calculus*: local and global study of functions, limit, derivative, direction of variations,

- extrema, tangent to the curve, derivative function, derivative of functions, derivative of sum, product, quotient of functions.
- *Percentage and Evolution*: successive changes, reciprocal evolution. Sequences: defined by an explicit formula, by a recursive formula, direction of variations, arithmetic and geometric sequences. Applications in finance: simple interest, compound interest.
 - *Statistics and Probability*: quartiles, deciles, box plot, variance and standard deviation of a statistical series. Random variable: probability distribution, expectation, variance, standard deviation, independent experiments, experiment of Bernoulli, binomial coefficients, binomial distribution, expectation of a binomial distribution, sampling, range of fluctuation.
 - *Algorithms*: basic (variables, input, output, expressions, functions), conditional statements, iterative loops, pseudo-code. Application: programming with the TI 84 or using a language like Python or Scilab. Set-mathematical notation, logical reasoning (connectors, negation, truth tables, propositions, logical implication), graphing calculator.
 - *Students also study*: linear equations with two unknowns, graph, scatter plot, linear curve fitting, regression line, applications to business and economics. Systems of p linear equations in n unknowns: solving by elimination, substitution, echelon matrix method. Matrix algebra, applications to business and economics. Linear programming: systems of linear inequalities, geometric approach, Simplex method using the pivot of Gauss, problems of minimization and maximization.

- *Financial Mathematics*: rational exponents, logarithms, geometric series, interest investments, annuities, nominal value, amortization, bonds. Combinatorial analysis: sets, counting techniques, permutations, arrangements, combinations, Pascal's triangle, binomial theorem, applications, introduction to the Theory of Games. This course is taught in French.

American Math 11 (Elective)

This course is offered to 11th-grade students who are not familiar with American mathematics to help them understand specific American terminology and approaches. Although this course does not directly prepare students for the SAT subject test in mathematics, it serves as a supplement for students' mathematical knowledge. Topics covered include functions and graphs, polynomials, inequalities and graphs, rational expressions, radicals, analytic geometry, exponential and logarithmic functions, trigonometric functions, sequences and series, logic, probability and statistics, lines and angles, polygons, circles, and solid geometry. This course is taught in English.

Physics, Chemistry, and Biology 11

The course's objective is to teach students to think critically of ways in which science and technological innovation implicate society and daily life. In order to instill in students a holistic approach to science, the program comprises a multi-disciplinary study of themes in chemistry, physics, and biology. It is organized in three parts: two themes encompassing all three disciplines (Visual Representation and Solving World Hunger), as well as one theme tied to biology

(Feminine/Masculine) and one theme tied to chemistry and physics (The Challenge of Energy). This course is taught in French.

Advanced American Chemistry 11 (Elective)

First semester only. The goal of the course is to expose FASNY students to a typical American high school chemistry curriculum. In addition, the course will help students prepare for the SAT chemistry subject test. However, students who follow the course and want to take the SAT chemistry exam will also need to study on their own to complement this preparation. Prerequisites: The course is geared towards students interested in the sciences, more specifically, chemistry. As the pace of the course will be fast, students who register should have demonstrated strong abilities for the sciences and maintained a good average in physics/ chemistry in grade 10. Topics of the course include structure of matter, states of matter, reaction types, stoichiometry, equilibrium and reaction rates, thermochemistry, descriptive chemistry, and laboratory schedule. The course is taught in English.

Spanish II (Elective)

Students in grade 11 who started Spanish as a third language (LV3) in grade 10 continue down this path, in accordance with the French program. They explore the cultures of Spanish-speaking countries through a variety of authentic documents. In order to continue to master the language, they review the different grammar structures and enrich their vocabulary banks so as to adequately describe their plans in the past, present, and future, give commands, express an obligation, a possibility, or a doubt, and formulate a hypothesis. Students are asked to actively engage in frequent oral

exercises (dialogues, role-play, presentations) on topics ranging from their lives and families to their tastes and habits.

Spanish V

In grade 11, students meet two hours a week. Students practice the different language skills (oral and written expression and comprehension) in order to continue down the path of linguistic autonomy. Cultural topics are centered on the following four themes: heroes and myths, spaces and exchanges, places and forms of power, and the idea of progress. This is an explicit shift toward preparing for the Baccalaureate exam, taken at the end of grade 12.

Spanish 11 for Native Speakers - Spanish AP Literature I

This course is intended for native and near-native speakers of Spanish and taught only in Spanish. Students review Spanish literature through a selection of readings, which includes classical poetry, narrative works, and theater extracts by writers such as Horacio Quiroga, Sabine R. Ulibarrí, Juan Rulfo, Gabriel García Márquez, Leopoldo Alas ("Clarín"), Emilia Pardo Bazán, Carmen Martín Gaité, Ricardo Palma, Jorge Luis Borges, Julio Cortázar, Carlos Fuentes, Isabel Allende, Federico García Lorca, Antonio Machado, Pablo Neruda, and Nicolás Guillén. They also watch and analyze movies relating to the literature, culture, politics, and history of Spanish-speaking countries. All students begin to prepare themselves for the Baccalaureate exam, taken at the end of grade 12. Some students may choose to take the necessary steps to prepare themselves for the Spanish Literature AP (Advanced Placement) exam. This course

meets twice a week.

Spanish SAT II Preparation (Optional)

Students in grade 11 have the option of taking a course to prepare for the Spanish SAT II. The course meets once a week in the second and third trimesters. Students familiarize themselves with the format of the standardized exam (with and without the oral comprehension) using practice tests. In the process of preparing for the Spanish SAT II, students review, consolidate, and deepen their mastery of the Spanish language, notably in their writing.

German V

Analysis and discussions in this course are based on literary texts and original documents. Students in this course also study German poetry across the centuries. This course is taught in German.

Physical Education

In order to optimize Baccalaureate results, students practice, over the course of two years, four sports chosen among those already learned in 10th grade or earlier. These include, but are not limited to, lifeguarding, running (3 x 500 meters), basketball, soccer, fitness, running relay, rock-climbing, volleyball, and badminton. This course is taught in French and English.

Art II (Elective)

Students in this class will complete a variety of assignments that require them to think more creatively and work more independently. In the process, they will begin to develop their own visual voices. Students will

take part in group critiques of their work, participate in art history discussions, and enjoy other experiences that will help them develop an awareness of their own artistic sensibilities and concerns. The ultimate goal of this course is to prepare students technically and conceptually for further study of art at FASNY and in college. Students will focus on improving their ability to render complex natural forms from direct observation. In particular, they will explore the beauty of human form through lessons on proportion, shading, gesture, the skeletal system, and capturing the expressive qualities of the model. Students will continue the development of a portfolio of original artwork that can be used for further study in art, as preparation for the Baccalaureate exam, and as a supplement to their college applications. This course is taught in English.

Current Events (Elective)

Students explore, research, discuss, and make both individual and group presentations with respect to salient current-events themes. Newspaper, radio, online media, and other Internet resources are used.

Latin IV (Elective)

Students read original texts with four themes:

- Narratives and Testimonies
- Rhetoric: The speaker and the power of speech
- Theater: Text and performance
- Poetry: Love and flames

Studies focus on Latin grammar, stylistics, vocabulary, etymology, literature, and civilization. Connections with other texts from the French and English curricula are made as often as possible. This course also includes

notions of ancient Greek culture and language. This elective course is taught in French.

Music (Elective)

This course focuses on musical practices. Group listening is emphasized, which allows students to deepen their understanding of music through a study of space, time, color, and form. Students are exposed to a variety of musical works from different eras, genres, and styles. Classroom teaching is enriched by music practices (both vocal and instrumental). This course is taught in French.

TWELFTH GRADE ES TRACK

Economics and Sociology 12 Honors

Economics 12 Honors is a continuum of the course taught in 11th-grade ES. It is meant to enable students to progressively integrate the concepts, methods, and key questions of three fields of social science: economics, sociology, and political science. The economics unit is organized around three themes: growth, fluctuations, and crises; globalization, international finance, and European integration; and economics of sustainable development. The sociology unit focuses on class, structure, social mobility and integration, conflict, and social change. The political science unit deals with social justice and inequalities and work, employment, and unemployment.

Advance Topics Economics and Sociology 12 Honors

The program is built around three main themes:

- Economy and demography: How demographic dynamics affect economic growth and the impact of economic and demographic variables on the financing of social protection.
- Business strategies and competition policy in a globalized economy: Under which circumstances can firms exercise market power and the role of competition policy.
- Financial instability and regulation: How financial globalization works, the mechanisms that lead to financial crises, and the regulation of the financial system.

English 12 Honors OIB

This advanced, college-level reading and writing course is the second year of the two-year English OIB program. Building on the work done by students in the 11th grade, this course not only devotes a significant portion of study to an in-depth analysis of the various literary genres—fiction, poetry, drama, and nonfiction—but also prepares students for the Baccalaureate exam through periodic mock written and oral exams taken in exam conditions. In addition to essays written in exam conditions, students develop their writing skills through a variety of writing activities, including journals, short responses, and creative-writing pieces. A significant portion of the year is dedicated to extensive study of the works in-depth—those texts that will be the focus of the Baccalaureate oral exam—with particular focus on students developing strategies and techniques for effectively close-reading the language, literary features, and meaning of significant passages from those works.

Texts and authors include, but are not limited to, *Crime and Punishment* by Fyodor Dostoevsky, *The Tempest* by William Shakespeare, *Beloved* by Toni Morrison, *Intimate Apparel* by Lynn Nottage, and a selection of poems by Robert Frost. This course is taught at a native level.

English 12

The non-OIB English course, in addition to preparing students for the English LV1 Baccalaureate exam, is a college-preparatory class for near-native or native English-speaking students who are interested in attending American or Canadian universities. Students work on developing their writing skills, as well as their reading and aural/oral skills, through a variety of activities, both written and oral, as they engage in the close reading and analysis of literary works, including novels, plays, short stories, and poetry. In addition to literary study, students practice their grammar and build their vocabulary through readings from contemporary media, traditional exercises, as well as the Test of English as a Foreign Language (TOEFL), International English Language Testing System (IELTS), and SAT preparation. Texts and authors may include, but are not limited to, *Vinegar Girl* by Anne Tyler, *The Underground Railroad* by Colson Whitehead, *The Road* by Cormac McCarthy, *Pygmalion* by George Bernard Shaw, as well as contemporary essays. This course is taught at a native level.

English 12 LV1 for Non-Native Speakers

This course involves intensive work on improving aural/oral skills as well as reading and writing skills in preparation for the English LV1 Baccalaureate examination, International English Language Testing

System (IELTS), and the Test of English as a Foreign Language (TOEFL). Students review English grammar, work on vocabulary development, practice TOEFL and IELTS exercises, and read a selection of British and American novels, plays, and poetry. A variety of literary genres, including fiction (long, short, drama, poetry) and nonfiction (essays, journalistic works), is included. Texts and authors include *Vinegar Girl* by Anne Tyler, *Pygmalion* by George Bernard Shaw, *V for Vendetta* by Lloyd and Moore, *Warriors Don't Cry* by Melba Pattillo Beals, contemporary essays, and poetry. This course is taught in English.

Philosophy Honors

Students are invited to think critically and analytically about academic subject matters, including history, literature, art, mathematics, the sciences, etc. They develop the ability to critique, reflect in a highly logical and thorough manner, and take an inquiry stance with respect to major themes that have interested society throughout history: law and justice, power, religion, work, the nature of human logic, the nature of knowledge, etc. In order for students to form their own well-founded opinions, they are asked to draw from the works of great Western philosophers and schools of thought developed from Greco-Roman antiquity through the modern era. Students are trained to write commentaries and dissertations in preparation for the Baccalaureate exam. Specifically, students learn to discern the essential issues contained within a philosophical question, clearly explore different points of view, extend beyond facts to the conceptualization of abstract ideas, and logically organize a personal reflection from introduction to conclusion. The course is taught via lectures, presentations, discussion, and

analysis of texts from the great philosophical works and the reading of important authors recommended by the French Ministry of National Education. The philosophical themes covered in the course include:

- human nature: conscience, unconscious, otherness, and desire
- culture: language, art, work, religion, and history
- reason and reality: demonstrations, interpretations, matter and spirit, and truth
- politics: nature of society, justice and law, and the State
- ethics: freedom, morals, and happiness

This course is taught in French and designated as an Honors course because more curricular hours are designated and, as a result, the course goes into further breadth and depth than the course titled Philosophy S Curriculum. Furthermore, the course builds from the introductory philosophy course that is a prerequisite for all ES Curriculum students in the 11th-grade year.

European History and World Geography IV Honors

The history portion of this course allows students to focus on understanding the 20th century. They study the relationship between societies and their past, ideologies, and opinions and beliefs of the last century, as well as the birth of two great powers (United States and China). They also study the different levels of government in the world since 1945, examining France as a nation-state, European unity since the 1948 Hague Conference, as well as the world economic governance since Bretton Woods.

The geography portion of the course focuses on the world, globalization, and the main continents (the Americas, Europe, Asia, and Africa) and their dynamics.

This course is taught in French.

Modern World History and Geography II Honors OIB

This is the second course in a demanding two-year history/geography program that covers the global events and themes that have shaped the modern world. The culminating examination is the History/Geography portion of the OIB (International Option) of the French Baccalaureate exam.

The history portion of this course takes a thematic approach to understanding the modern world. Students study the rise to power of the U.S. and China in the 20th century, conflict in the Middle East, as well as the relationship between societies and their past and ideologies, opinions, and beliefs from the end of the 19th century to today. They also study three scales of governance since 1945, examining France as a nation-state, European unity since the 1948 Hague Conference, and world economic and political governance since the Bretton Woods conference. In addition, students will review the social and political history of the U.S. since 1945.

In geography, students study globalization, its actors and the flows that they generate, and the corresponding shifts in economic power. The curriculum includes in-depth studies of several regions, including the Americas (e.g., regional cooperation and tensions, the rise of Brazil), Africa, and South and East Asia. Students develop expertise in the analysis of geo-political, geo-economic, geo-cultural, and geo-environmental maps.

Math: Calculus, Statistics, and Probability II

The topics covered in this curriculum are:

- *Calculus*: Exponential, logarithmic functions. Continuity, Intermediate Value Theorem, differentiation, convexity, inflexion point, Riemann integral, areas calculation.
- *Sequences*: Geometric sequences and series, arithmetic-geometric sequences, limits.
- *Probability and Statistics*: Conditional probability, Law of Total Probability (Bayes' formula), independent events, density function of a continuous random variable, uniform distribution, standard normal distribution, Moivre-Laplace Theorem, normal distribution N, estimation theory (prediction interval, confidence interval).
- *Algorithms*: Basics (variables, input, output, expressions, functions), conditional statements, iterative loops, recursivity.
- *Application*: Programming with the TI 84 or using a language like Python or Matlab. Set-mathematical notation, logical reasoning (connectors, negation, truth tables, propositions, logical implication). Graphing calculator. This course is taught in French.

Math: Calculus, Statistics and Probability, and Finite Math II (Honors)

The topics covered in this curriculum are:

- *Calculus*: Exponential, logarithmic functions. Continuity, Intermediate Value Theorem, differentiation, convexity, inflexion point, Riemann integral, areas calculation.
- *Sequences*: Geometric sequences and series, arithmetic-geometric sequences, limits.

- *Probability and Statistics*: Conditional probability, Law of Total Probability (Bayes' formula), independent events, density function of a continuous random variable, uniform distribution, standard normal distribution, Moivre-Laplace Theorem, normal distribution N, estimation theory (prediction interval, confidence interval).
- *Algorithms*: Basics (variables, input, output, expressions, functions), conditional statements, iterative loops, recursivity.
- *Application*: Programming with the TI 84 or using a language like Python or Matlab. Set-mathematical notation, logical reasoning (connectors, negation, truth tables, propositions, logical implication). Graphing calculator. This course is taught in French.

German VI

Analysis and discussions in this course are based on literary texts and original documents. Students are expected to present written and oral work relating to such texts. This course is taught in German.

Spanish III (Elective)

Students in grade 12 who started Spanish as a third language (LV3) in grade 10 continue down this path in accordance with the French program. Students are given ample opportunities to review and solidify grammar and vocabulary basics. They are also asked to deepen their mastery of the language through the study of various authentic documents: visual texts (literature, cartoons, advertisements) as well as audio-visual materials that expose the students to the different accents of the Spanish-speaking world and the diverse cultures within

it. Students are challenged to enrich their expression as they continue to communicate through comprehension, speaking, reading, and writing when grappling with more mature, complex world topics. The course material falls under the four major themes of the Baccalaureate exam: heroes and myths, spaces and exchanges, places and forms of power, and the idea of progress. Students of LV3 may choose to prepare for the oral component of the Baccalaureate exam, although this is optional.

Spanish VI

In grade 12, students are fully engaged in preparing for the Baccalaureate exam. This cumulative exam covers four broad themes: heroes and myths, spaces and exchanges, places and forms of power, and the idea of progress. Students tackle these multi-faceted topics through a variety of assessments that solicit their ability to listen, understand, speak, read, and write. ES and S series take the same Baccalaureate exam in Spanish.

Spanish 12 for Native Speakers - AP Literature II

This course is intended for native and near-native speakers of Spanish and taught only in Spanish. Students review Spanish literature through a selection of Spanish and Latin American readings by writers such as Santiago Roncagliolo or Dulce Chacón. The students also watch films relating to the literature, culture, politics, and history of Spanish-speaking countries. They also continue to prepare themselves for the Baccalaureate exam by exploring themes and documents that fall under four major categories: heroes and myths, spaces and exchanges, places and forms of power, and the idea of progress. The course meets twice a week.

Spanish SAT II Preparation (Optional)

Students in grade 12 have the option to continue the prep course for the Spanish SAT II. The course meets once a week in the first trimester only. Students continue to familiarize themselves with the format of the standardized exam (with the oral comprehension) using practice tests.

Physical Education

In accordance with the physical education curriculum of the Baccalaureate, students are graded in three sports within different athletic domains. These include, but are not limited to, lifeguarding, running (3 x 500 meters), basketball, soccer, fitness, dance, running relay, rock-climbing, volleyball, and badminton. This course is taught in French and English.

Art III (Elective)

This course prepares students for the Baccalaureate exam in visual art. Three specific works of art are studied in depth, and students are encouraged to forge connections among these three works and their own creative explorations. Students construct a portfolio of works throughout the year, including sketches, drawings, photographs, and finished projects in a variety of media. The resulting portfolio documents the student's personal artistic process, growth, and understanding in the broader context of art history and culture. This course is taught in English. The oral exam is conducted in French.

Latin V (Elective)

This course is the final one in the sequence of the Latin curriculum in the Secondary School and culminates in an

oral exam of the French Baccalaureate. Students engage in oral and written activities based on themes such as philosophical thinking, scientific reasoning, and political thought and the reading of the program-mandated text (the text is changed every two years). Connections with other texts from the French and English curricula are made as often as possible. This course also includes notions of ancient Greek culture and language. The Latin section of the French Baccalaureate has a coefficient 3. This elective course is taught in French.

Music (Elective)

This course focuses on musical practices. Group listening is emphasized, which allows students to deepen their understanding of music through a study of space, time, color, and form. Students are exposed to a variety of musical works from different eras, genres, and styles. Classroom teaching is enriched by music practices (both vocal and instrumental). This course is taught in French.

FRENCH BACCALAUREATE SCIENCES (S) TRACK

ELEVENTH GRADE S TRACK

English 11 Honors OIB

This advanced, college-level reading and writing course is the first year of the two-year English OIB program. This course devotes a significant portion of study to an in-

depth analysis of the various literary genres—fiction, poetry, drama, and nonfiction—as recommended by the International Option of the French Baccalaureate. In addition to studying a wide range of genres, students in the course will also work on developing their writing skills through a variety of writing activities that include formal analytical essays, creative-writing pieces, and short responses.

Course texts include works from the 19th to the 21st centuries by authors from around the globe, and may include such works as *Frankenstein* by Mary Shelley, *Heart of Darkness* by Joseph Conrad, *A Streetcar Named Desire* by Tennessee Williams, *The Scarlet Letter* by Nathaniel Hawthorne, *Interpreter of Maladies* by Jhumpa Lahiri, *A Room of One's Own* by Virginia Woolf, *Stranger in the Village* by James Baldwin, and a selection of poems by Rita Dove. This course is taught at a native level.

English 11

The non-OIB English course, in addition to beginning the preparation for the English LV1 Baccalaureate exam, is a college-preparatory class for near-native English-speaking students who are interested in attending American or Canadian universities. It involves intensive work on improving aural/oral skills as well as reading and writing skills. Students strengthen these skills through the close reading and literary study of selected British and American literature, including novels, plays, short stories, and poetry. In addition to literary study, students practice their grammar and build their vocabulary through readings from contemporary media, traditional exercises, and an ACT preparation text. The literary texts and authors covered include *Fences* by August Wilson, *Brave New World* by Aldous Huxley, *Never Let Me Go* by Kazuo Ishiguro, the poetry of T.S. Eliot, and the short

stories of Hemingway, Lovecraft, and Le Guin. This course is taught at a native level.

English 11 LV1 for Non-Native Speakers

This course involves intensive work on improving aural/oral skills, as well as reading and writing skills, as students begin preparation for the English LV1 Baccalaureate examination. Students review English grammar combined with the Test of English as a Foreign Language (TOEFL), work on vocabulary development, and read a selection of British and American novels, plays, poetry, and nonfiction (essays, journalistic works). Texts and authors may include, but are not limited to, *Elements of Writing*, *Wordly Wise*, *Never Let Me Go* by Kazuo Ishiguro, *Anthem* by Ayn Rand, *Fahrenheit 451* by Ray Bradbury, *The Great Gatsby* by F. Scott Fitzgerald, and *The Maltese Falcon* by Dashiell Hammett. This course is taught in English.

French 11 Literature and Composition Honors

This is the final French studies course for Secondary School students and culminates with students taking the Baccalaureate exam. The curriculum builds on themes first presented in the 10th grade, including essay writing, creative writing, and literary commentaries, and is based around the following topics: theater, poetry, applying the art of rhetoric to an investigation of human nature, and the novel. This course is taught in French at a native level.

European History and World Geography III Honors

This course, titled Questions to Understand the 21st Century, opens with a study of economic growth, globalization, and social change since the mid-19th

century. It continues with a study of the major conflicts of the 20th century and of the totalitarianisms in Europe (Soviet, Fascist, and Nazi). The course ends with a study of the Republic faced with the major challenges of the 20th century.

In geography, the course opens with a study of local territories, then examines the development of the French territory, before ending with the European Union and its place in the world. In both history and geography, students learn to analyze and interpret documents—such as press articles, cartoons, photography, maps, graphs, etc.—and to draft well-structured, well-written essays. This course is taught in French.

Modern World History and Geography I Honors OIB

This is the first course in a demanding two-year history/ geography program that covers the global events and themes that have shaped the modern world. In the history portion of this course, the topics covered include an introduction to economic and political theory, industrialization and the Dual Revolution, totalitarianism, war in the 20th century (including World War I, World War II, the Cold War, and post-Cold War conflicts), the independence struggles and subsequent challenges facing new states in Africa, the Middle East, and Asia, and the New World Order.

In geography, students are introduced to the concepts of globalization, the European Union and its role in a globalized world, the rise of global cities, and the phenomena of urbanization and immigration and the challenges that they pose.

In both history and geography, students develop their ability to analyze and interpret documents (press articles,

cartoons, photographs, memoirs, maps, charts, etc.) and to write college-level essays.

Interdisciplinary Research Project

Students form research groups and collectively choose a subject to study from a list of official themes (issues of the environment, etc.). Subjects must stem from two main courses of the curriculum (economics and mathematics), and students are evaluated based on their group work. They are allowed a semester to conduct their research and present their work (written essay, video, website, etc.). Students then defend their work in front of a panel. This oral exam is part of the Baccalaureate. This course is taught in French.

Math: Advanced Calculus, Vector Geometry, and Probability I Honors

- *Algebra and Trigonometry*: polynomials, quadratic equations and inequalities, unit circle, radian, trigonometric equations and formulas, law of sines, law of cosines.
- *Calculus and Analysis*: square-root function, absolute value function; global and local study of numerical functions: limit, derivative, graph, tangent to the curve, direction of variation, extrema; derivative function, derivative of sum, product and quotient of functions.
- *Sequences*: explicit formula, recursive formula, direction of variation, limit at infinity; arithmetic, geometric sequences and series, limit at infinity.
- *Vector Geometry*: condition of collinearity of two vectors, expression of a vector in terms of two noncollinear vectors, direction vector of a line, Cartesian equation of a line, oriented angle of two vectors, scalar product of two vectors,

calculations of lengths and angles, the median theorem, orthogonality of two vectors, vector normal to a line, equations of a circle.

- *Statistics and Probability*: quartiles, deciles, box plot, variance and standard deviation of statistical series random variable: probability distribution, expectation, variance, standard deviation, independent experiments, Bernoulli experiment, binomial coefficients, Pascal's triangle; binomial distribution: expectation, variance, standard deviation; sampling, range of fluctuation.
- *Algorithms*: Basic (variables, input, output, expressions, functions), conditional statements, iterative loops, pseudo-code. Application: programming with the TI 84 or using a language like Python or Scilab. Set-mathematical notation, logical reasoning (connectors, negation, truth tables, propositions, logical implication). Graphing calculator, geometry software. This course is taught in French.

American Math 11 (Elective)

This course is offered to 11th-grade students who are not familiar with American mathematics to help them understand specific American terminology and approaches. Although this course does not directly prepare students for the SAT subject test in mathematics, it serves as a supplement to students' mathematical knowledge. Topics covered include functions and graphs, polynomials, inequalities and graphs, rational expressions, radicals, analytic geometry, exponential and logarithmic functions, trigonometric functions, sequences and series, logic, probability and statistics, lines and angles, polygons, circles, and solid geometry. This course is taught in English.

Biology and Natural Sciences 11 Honors

This course is divided into three themes. The first theme, *The Earth in the Universe, Life, and the Evolution of the Living*, presents the expression, stability, and variations in genetic heritage, as well as the study of tectonic plates (history of a model). When studying the second theme, *Contemporary Challenges to the Planet*, students focus on applied geology and the question of solving world hunger. Finally, when approaching *Human Body and Health*, students will focus on feminine and masculine, genetic variations and health, and "from the eye to the brain." The discipline has three main objectives: building general background knowledge of scientific issues, contributing to forming critical thinking and civic education, and preparing for future studies by developing methodological and technical aptitudes. This course is taught in French.

Physics and Chemistry 11 Honors

The honors Physics and Chemistry course in 11th grade uses a thematic approach. The three thematic units are: *Observation* (colors and images; How does the eye operate? Where does colored light come from? How is color created?); *Understanding* (laws and templates; What are the physical forces in the universe? What interactions explain both stabilities and the physical and chemical evolution of matter? What models are used to describe these processes? With what types of energy are they associated?); and *Moving to Action* (21st-century challenges; How can science tackle the challenge of human development in a way that is respectful of the planet?). This course is taught in French.

Advanced American Chemistry 11 (Elective)

First semester only. The goal of the course is to expose FASNY students to a typical American high-school chemistry curriculum. In addition, the course will help students prepare for the SAT chemistry subject test. However, students who follow the course and want to take the SAT chemistry exam will also need to study on their own to complement this preparation.

Prerequisites: The course is geared towards students interested in the sciences, more specifically, chemistry. As the pace of the course will be fast, students who register should have demonstrated strong abilities in the sciences and should have maintained a good average in Physics/Chemistry in grade 10. Topics of the course include structure of matter, states of matter, reaction types, stoichiometry, equilibrium and reaction rates, thermochemistry, descriptive chemistry, laboratory schedule. The course is taught in English.

Advanced American Physics 11 (Elective)

Second semester only. The goal of the course is to complement the physics part of the Ministry of French National Education's Physique-Chimie course that students in 1ère S and Terminale S take at FASNY with topics studied in a typical American high-school physics course.

Topics include Newtonian mechanics, fluid mechanics and thermal physics, electricity and magnetism, waves and optics, atomic and nuclear physics, laboratory. This course is taught in English.

German V

Analysis and discussions in this course are based on literary texts and original documents. Students in this course also study German poetry across the centuries. This course is taught in German.

Spanish II (Elective)

Students in grade 11 who started Spanish as a third language (LV3) in grade 10 continue down this path in accordance with the French program. They explore the cultures of Spanish-speaking countries through a variety of authentic documents. In order to continue to master the language, they review the different grammar structures and enrich their vocabulary banks so as to adequately describe their plans in the past, present, and future; give commands; express an obligation, a possibility, or a doubt; and formulate a hypothesis. Students are asked to actively engage in frequent oral exercises (dialogues, role-play, oral presentations) on topics ranging from their lives and families to their tastes and habits. This prepares them for the oral component of the Baccalaureate exam, taken the following year.

Spanish V

In grade 11, students meet two hours a week. Students practice the different language skills (oral and written expression and comprehension) in order to continue down the path of linguistic autonomy. Cultural topics are centered on the following four themes: heroes and myths, spaces and exchanges, places and forms of power, and the idea of progress. This is an explicit shift toward preparing for the Baccalaureate exam, taken at the end of grade 12.

Spanish 11 for Native Speakers - Spanish AP Literature I

This course is intended for native and near-native speakers of Spanish and taught only in Spanish. Students review Spanish literature through a selection of readings that includes classical poetry, narrative works, and theater extracts by writers such as Horacio Quiroga, Sabine R. Ulibarrí, Juan Rulfo, Gabriel García Márquez, Leopoldo Alas ("Clarín"), Emilia Pardo Bazán, Carmen Martín Gaité, Ricardo Palma, Jorge Luis Borges, Julio Cortázar, Carlos Fuentes, Isabel Allende, Federico García Lorca, Antonio Machado, Pablo Neruda, and Nicolás Guillén. They also watch and analyze movies relating to the literature, culture, politics, and history of Spanish-speaking countries. All students begin to prepare themselves for the Baccalaureate exam, taken at the end of grade 12. Some students may choose to take the necessary steps to prepare themselves for the Spanish Literature AP (Advanced Placement) exam. This course meets twice a week.

Spanish SAT II Preparation (Optional)

Students in grade 11 have the option of taking a course to prepare for the Spanish SAT II. The course meets once a week in the second and third trimesters. Students familiarize themselves with the format of the standardized exam (with and without the oral comprehension) using practice tests. In the process of preparing for the Spanish SAT II, students review, consolidate, and deepen their mastery of the Spanish language, notably in their writing.

Physical Education

In order to optimize Baccalaureate results, students

practice, over the course of two years, four sports chosen from among those already learned in 10th grade or earlier. These include, but are not limited to, lifeguarding, running (3 x 500 meters), basketball, soccer, fitness, running relay, rock-climbing, volleyball, and badminton. This course is taught in French and English.

Art II (Elective)

Students in this class will complete a variety of assignments that require them to think more creatively and work more independently. In the process, they will begin to develop their own visual voices. Students will take part in group critiques of their work, participate in art history discussions, and enjoy other experiences that will help them to develop an awareness of their own artistic sensibilities and concerns. The ultimate goal of this course is to prepare students technically and conceptually for further study of art at FASNY and in college. Students will focus on improving their ability to render complex natural forms from direct observation. In particular, they will explore the beauty of human form through lessons in proportion, shading, gesture, the skeletal system, and capturing the expressive qualities of the model. Students will continue the development of a portfolio of original artwork that can be used for further study in art, as preparation for the Baccalaureate exam, and as a supplement to their college applications. This course is taught in English.

Current Events (Elective)

Students explore, research, discuss, and make both individual and group presentations with respect to salient current-events themes. Newspaper, radio, online media, and other Internet resources are used.

Latin IV (Elective)

Students read original texts with four themes:

- Narratives and Testimonies
- Rhetoric: The speaker and the power of speech
- Theater: Text and performance
- Poetry: Love and flames

Studies focus on Latin grammar, stylistics, vocabulary, etymology, literature, and civilization. Connections with other texts from the French and English curricula are made as often as possible. This course also includes notions of ancient Greek culture and language. This elective course is taught in French.

Music (Elective)

This course focuses on musical practices. Group listening is emphasized, which allows students to deepen their understanding of music through a study of space, time, color, and form. Students are exposed to a variety of musical works from different eras, genres, and styles. Classroom teaching is enriched by music practices (both vocal and instrumental). This course is taught in French.

TWELFTH GRADE S TRACK

English 12 Honors OIB

This advanced, college-level reading and writing course is the second year of the two-year English OIB program. Building on the work done by students in the 11th grade, this course not only devotes a significant portion of study to an in-depth analysis of the various literary genres—fiction, poetry, drama, and nonfiction—it also prepares

students for the Baccalaureate exam through periodic mock written and oral exams taken in exam conditions. In addition to essays written in exam conditions, students develop their writing skills through a variety of writing activities, including journals, short responses, and creative-writing pieces. A significant portion of the year is dedicated to extensive study of the works in-depth—those texts that will be the focus of the Baccalaureate oral exam—with particular focus on students developing strategies and techniques for effectively close-reading the language, literary features, and meaning of significant passages from those works. Texts and authors include, but are not limited to, *Crime and Punishment* by Fyodor Dostoevsky, *The Tempest* by William Shakespeare, *Beloved* by Toni Morrison, *Intimate Apparel* by Lynn Nottage, and a selection of poems by Robert Frost. This course is taught at a native level.

English 12

The non-OIB English course, in addition to preparing students for the English LV1 Baccalaureate exam, is a college-preparatory class for near-native or native English-speaking students who are interested in attending American or Canadian universities. Students work on developing their writing skills as well as their reading and aural/oral skills through a variety of activities, both written and oral, as they engage in the close reading and analysis of literary works, including novels, plays, short stories, and poetry. In addition to literary study, students practice their grammar and build their vocabulary through readings from contemporary media, traditional exercises, as well as the Test of English as a Foreign Language (TOEFL), International English Language Testing System (IELTS), and SAT preparation. Texts and authors may include, but are not limited to, *Vinegar Girl* by Anne Tyler, *The Underground Railroad* by

Colson Whitehead, *The Road* by Cormac McCarthy, *Pygmalion* by George Bernard Shaw, and contemporary essays. This course is taught at a native level.

English 12 LV1 for Non-Native Speakers

This course involves intensive work on improving aural/oral skills, as well as reading and writing skills, in preparation for the English LV1 Baccalaureate examination, International English Language Testing System (IELTS), and the Test of English as a Foreign Language (TOEFL). Students review English grammar, work on vocabulary development, practice TOEFL and IELTS exercises, and read a selection of British and American novels, plays, and poetry. A variety of literary genres, including fiction (long, short, drama, poetry) and nonfiction (essays, journalistic works), is included. Texts and authors include *Vinegar Girl* by Anne Tyler, *Pygmalion* by George Bernard Shaw, *V for Vendetta* by Lloyd and Moore, *Warriors Don't Cry* by Melba Pattillo Beals, contemporary essays, and poetry. This course is taught in English.

Philosophy

Students are invited to think critically and analytically about academic subject matter, including history, literature, art, mathematics, the sciences, etc. They develop the ability to critique, reflect in a highly logical and thorough manner, and take an inquiry stance with respect to major themes that have interested society throughout history: law and justice, power, religion, work, the nature of human logic, the nature of knowledge, etc. In order for students to form their own well-founded opinions, they are asked to draw from the works of great Western philosophers and schools of

thought developed from Greco-Roman antiquity through the modern era. Students are trained to write commentaries and dissertations in preparation for the Baccalaureate exam. Specifically, students learn to discern the essential issues contained within a philosophical question, clearly explore different points of view, extend beyond facts to the conceptualization of abstract ideas, and logically organize a personal reflection from introduction to conclusion. The course is taught via lectures, presentations, discussion, analysis of texts from the great philosophical works, and the reading of important authors recommended by the French Ministry of National Education. The philosophical themes covered in the course include:

- human nature: conscience, unconscious, otherness, and desire
- culture: language, art, work, religion, and history
- reason and reality: demonstrations, interpretations, matter and spirit, and truth
- politics: nature of society, justice and law, and the State
- ethics: freedom, morals, and happiness

This course is taught in French.

European History and World Geography IV

In history, students are invited to deeply reflect upon the challenges facing today's world. They consider the relationship between societies and their past as well as the concept of memory. They study the super-powers and conflicts throughout the world since 1945. They also study the scale of the government in the world since 1945. In geography, the course opens with a reading grid for a complex world, then tackles the forces at play in globalization, and ends with an analysis of the large,

continent-scale geographical dynamics. This course is taught in French.

Modern World History and Geography II Honors OIB

This is the second course in a demanding two-year history/geography program that covers the global events and themes that have shaped the modern world. The culminating examination is the History/Geography portion of the OIB (International Option) of the French Baccalaureate exam.

The history portion of this course takes a thematic approach to understanding the modern world. Students study the rise to power of the U.S. and China in the 20th century, conflict in the Middle East, as well as the relationship between societies and their past and ideologies, opinions, and beliefs from the end of the 19th century to today. They also study three scales of governance since 1945, examining France as a nation-state, European unity since the 1948 Hague Conference, and world economic and political governance since the Bretton Woods conference. In addition, students will review the social and political history of the U.S. since 1945.

In geography, students study globalization, its actors and the flows that they generate, and the corresponding shifts in economic power. The curriculum includes in-depth studies of several regions, including the Americas (e.g., regional cooperation and tensions and the rise of Brazil), Africa, and South and East Asia. Students develop expertise in the analysis of geo-political, geo-economic, geo-cultural, and geo-environmental maps.

Math: Advanced Calculus, Vector Geometry, and Probability II Honors

The topics covered in this curriculum are:

- *Calculus*: Exponential, logarithmic, power and trigonometric functions. Limits and continuity, Intermediate Value Theorem, differentiation, Riemann integral, areas calculation. Asymptote of a curve.
- *Sequences*: Proof by mathematical induction, limits, bounded above or below sequences.
- *Algebra and Geometry*: Complex numbers (equations, geometric representation, trigonometric, exponential form).
- *Spatial Vector Geometry*: lines and planes, vectors, Scalar Product.
- *Probability and Statistics*: Conditional probability, Law of Total Probability (Bayes' formula), independent events, density function of a continuous random variable, uniform distribution, exponential distribution, standard normal distribution, Moivre-Laplace Theorem, normal distribution N, Estimation Theory (prediction interval, confidence interval).
- *Algorithms*: Basics (variables, input, output, expressions, functions), conditional statements, Iterative loops, recursivity.
- *Application*: Programming with the TI 84 or using a language like Python or Matlab. Set-mathematical notation, logical reasoning (connectors, negation, truth tables, propositions, logical implication). Graphing calculator. This course is taught in French.

Math - Advanced Topics in Math 12 Honors: Linear Algebra and Number Theory

- *Number Theory*: divisibility, Euclidean division, congruence in \mathbb{Z} , prime numbers, relatively prime numbers, Bézout's identity, Gauss' theorem, Fermat's little theorem.
- *Problem-Solving*: Coding, cryptography, encryptions.
- *Matrix and Sequences*: Operations, inverse, linear systems in more than two variables, sequences of matrix.
- *Problem-Solving*: Random walk, Markov chains, Ehrenfest Diffusion Model, Lotka-Volterra predator-prey model.

Biology / Natural Sciences 12 Honors

This course builds on knowledge learned in prior science courses and combines lectures and lab exercises. The content focuses on the following themes:

- Earth in the Universe, Life, and the Evolution of Living Things: genetic variation related to sexual reproduction and a few aspects of the mechanisms of evolution (study of angiosperm)
- A few aspects of continental geologic transformations are discussed to introduce the theme of Contemporary Global Issues; two questions are addressed:
 - man's domestication of the plant
 - the thermal properties of the Earth as possible energy sources and as elements in the understanding of how the Earth operates
- Human Body and Health is structured around two questions:

- A few aspects of immune relations allow to stabilize and complete middle school knowledge and to link this theme to an evolving vision.
- Study of the somatic nervous system in association with the spinal reflex will reinforce the notion of "reflex," while giving a solid background on neurons and synapses.

Advanced Topics in Biology and Natural Sciences 12 Honors for Students Specializing in Biology:

In this section of biology and geology, three themes are covered:

- Earth in the Universe, Life, and the Evolution of Life: energy and the living cell (limited to eukaryotic cells), photosynthesis, respiration, fermentation, ATP
- Contemporary Global Issues: atmosphere, hydrosphere, climates (past to future); understanding the origin of climate; comparison of today's atmosphere and the initial one are tools for determining ancient paleoclimates; understanding greenhouse effect
- Human Body and Health: glycemia and diabetes. Glycemia is a parameter of the internal environment; maintaining it within a narrow range is indicative of good health (enzymatic action, regulation of glycemia, origin of diabetes). This course is taught in French.

Physics and Chemistry 12 Honors / Physique-Chimie

In the 12th-grade Physics and Chemistry course, students explore three fields:

1) Waves and Matter. Waves and particles convey information. How are they detected? What are the characteristics and properties of waves? How do we create and use spectra to identify atoms and molecules?

2) Laws and Models. How are periodic phenomena used to measure time? In what way is the concept of time essential to relativity? Which parameters influence chemical evolution? How can the structure of a molecule help in identifying its properties? How do organic reactions and proton exchanges contribute to the transformation of matter? How do energy transfers of different scales occur? How is quantum reality manifested, especially with regard to light?

3) 21st-century challenges. In what ways can science tackle the challenges met by humankind in its endeavor for sustainable development? Saving resources and respecting the environment, synthesizing molecules and manufacturing new materials, transferring and storing information, creating and innovating. The course is taught in French.

Advanced Topics in Physics and Chemistry 12 Honors for S Students Concentrating in Physics/Chemistry:
For students concentrating in physics and chemistry, the course prepares them for college work in this area.

Students will concentrate on three areas essential to any scientist: experimenting, analysis and synthesis of scientific documents, and the resolution of scientific problems. In this perspective, the curriculum uses three study areas:

1) Water: Water and its environment, water and resources (producing drinkable water, mineral and organic resources in the oceans). Water and energy: fuel

cells and production of dihydrogen

2) Sound and music: musical instruments, transmitting and receiving sounds, sound and architecture

3) Materials: the cycle of life: development, aging, corrosion, protection, and recycling. Structure and properties: conductors, superconductors, liquid crystals, semi-conductor devices, photovoltaics. New materials: nanotubes, nanoparticles, composite materials. The course is taught in French.

Advanced American Physics 12 (Elective)

The goal of the course is to complement the physics part of the Ministry of French National Education's course that students in 1ère S and Terminale S take at FASNY with topics studied in a typical American high-school physics course.

Prerequisites: The course is geared towards students in the S section of 11th and 12th grades interested in physics. As the pace of the course will be fast, students must have maintained a good average in Physics/Chemistry in grade 10 and during the first semester of grade 11. Topics of the course include Newtonian mechanics, fluid mechanics and thermal physics, electricity and magnetism, waves and optics, atomic and nuclear physics, laboratory. The course is taught in English.

German VI

Analysis and discussions in this course are based on literary texts and original documents. Students are expected to present written and oral work relating to

such texts. This course is taught in German.

Spanish III (Elective)

Students in grade 12 who started Spanish as a third language (LV3) in grade 10 continue down this path in accordance with the French program. Students are given ample opportunities to review and solidify grammar and vocabulary basics. They are also asked to deepen their mastery of the language through the study of various authentic documents: visual texts (literature, cartoons, advertisements) as well as audio-visual materials that expose the students to the different accents of the Spanish-speaking world as well as the diverse cultures within it. Students are challenged to enrich their expression as they continue to communicate through comprehension, speaking, reading, and writing when grappling with more mature, complex world topics. The course material falls under the four major themes of the Bacalaureate exam: heroes and myths, spaces and exchanges, places and forms of power, and the idea of progress. Students in LV3 may choose to prepare for the oral component of the Bacalaureate exam, although this is optional.

Spanish VI

In grade 12, students are now fully engaged in preparing for the Bacalaureate exam. This cumulative exam covers four broad themes: heroes and myths, spaces and exchanges, places and forms of power, and the idea of progress. Students tackle these multi-faceted topics through a variety of assessments that solicit their ability to listen, understand, speak, read, and write. ES and S series take the same Bacalaureate exam in Spanish.

Spanish 12 for Native Speakers - Spanish AP Literature II

This course is intended for native and near-native speakers of Spanish and taught only in Spanish. Students review Spanish literature through a selection of Spanish and Latin American readings by writers such as Santiago Roncagliolo or Dulce Chacón. They also watch films relating to the literature, culture, politics, and history of Spanish-speaking countries and continue to prepare themselves for the Bacalaureate exam by exploring themes and documents that fall under four major categories: heroes and myths, spaces and exchanges, places and forms of power, and the idea of progress. The course meets twice a week.

Spanish SAT II Preparation (Optional)

Students in grade 12 have the option to continue the prep course for the Spanish SAT II. The course meets once a week in the first trimester only. Students continue to familiarize themselves with the format of the standardized exam (with oral comprehension) using practice tests.

Physical Education

In accordance with the Physical Education curriculum of the Bacalaureate, students are graded in three sports within different athletic domains. These include, but are not limited to, lifeguarding, running (3 x 500 meters), basketball, soccer, fitness, dance, running relay, rock-climbing, volleyball, and badminton. This course is taught in French and English.

Art III (Elective)

This course prepares students for the Bacculaureate exam in visual art.

Three specific works of art are studied in depth, and students are encouraged to forge connections among these three works and their own creative explorations. Students construct a portfolio of work throughout the year, including sketches, drawings, photographs, and finished projects in a variety of media. The resulting portfolio documents the student's personal artistic process, growth, and understanding in the broader context of art history and culture. This course is taught in English. The oral exam is conducted in French.

Latin V (Elective)

This course is the final one in the sequence of the Latin curriculum in the Secondary School and culminates in an oral exam of the French Bacculaureate. Students engage in oral and written activities based on themes such as philosophical thinking, scientific reasoning, political thought, and the reading of the program-mandated text (the text is changed every two years). Connections with other texts from the French and English curricula are made as often as possible. This course also includes notions of ancient Greek culture and language. The Latin section of the French Bacculaureate has a coefficient 3. This elective course is taught in French.

Music (Elective)

This course focuses on musical practices. Group listening is emphasized, which allows students to deepen their understanding of music through a study of space, time, color, and form. Students are exposed to a variety of

musical works from different eras, genres, and styles. Classroom teaching is enriched by music practices (both vocal and instrumental). This course is taught in French.

INTERNATIONAL BACCALAUREATE DIPLOMA PROGRAM TRACK (11IB AND 12IB)

GROUP 1**English A Literature - HL: Grades 11 and 12**

The course is built on the assumption that literature is concerned with our conceptions, interpretations, and experiences of the world. The study of literature can therefore be seen as an exploration of the way it represents the complex pursuits, anxieties, joys, and fears to which human beings are exposed in the daily business of living. It enables an exploration of one of the more enduring fields of human creativity and provides opportunities for encouraging independent, original, critical, and clear thinking. It also promotes respect for the imagination and a perceptive approach to the understanding and interpretation of literary works.

Through the study of a wide range of literature, the Language A: Literature course encourages students to appreciate the artistry of literature and to develop an ability to reflect critically on their reading. Works are studied in their literary and cultural contexts, through

close study of individual texts and passages and by considering a range of critical approaches. In view of the international nature of the IB and its commitment to intercultural understanding, the Language A: Literature course does not limit the study of works to the products of one culture or the cultures covered by any one language. The study of works in translation is especially important in introducing students, through literature, to other cultural perspectives. The response to the study of literature is through oral and written communication, thus enabling students to develop and refine their command of language.

Language A: Literature is a flexible course that allows teachers to choose works from prescribed lists of works and from their own experience. In the first year of this two-year program, students will explore dystopian fiction such as *Brave New World* by Aldous Huxley, *We* by Yevgeny Zamyatin, and *The Handmaid's Tale* by Margaret Atwood. Students will also explore the themes of criminality and social alienation in three different works in translation: *A Doll's House* by Henrik Ibsen, *Crime and Punishment* by Fyodor Dostoevsky, and *Chronicle of a Death Foretold* by Gabriel García Márquez. In 12th grade, students will build on the work accomplished in 11th grade. The first major task is to prepare for the Individual Oral Commentary, an oral exam requiring close analysis of a poem (in this case, one by Keats) and strong working knowledge of the program as a whole. The works of literature for the fall are as follows: *Othello* by Shakespeare, *Heart of Darkness* by Joseph Conrad, and the poetry of John Keats. In the spring, students will prepare for the Paper One Exam (a two-hour analysis of a previously unseen prose or verse passage) and the Paper Two Exam (a two-hour, genre-specific exam requiring analysis across novels that we will read in the spring; the novels are as follows: *The*

Awakening by Kate Chopin, *The Handmaid's Tale* by Margaret Atwood, *Beloved* by Toni Morrison, and *The Road* by Cormac McCarthy).

French A Literature - SL and HL: Grades 11 and 12

This course is built on the assumption that literature is concerned with our conceptions, interpretations, and experiences of the world. The study of literature can therefore be seen as an exploration of the way it represents the complexity of the world, that of human beings and their relationship with the environment, in what they feel, think, and understand of the human experience. Literature provides an excellent medium to discuss and reflect on our lives' complexity through the works, which can be seen as statements or testimonials of the author's personal experience at a given time.

Through the study of a wide range of literature, the Language A: Literature course encourages students to appreciate the artistry of literature and to develop an ability to reflect critically on their reading. Works are studied in their literary and cultural contexts, through close study of individual texts and passages and by considering a range of critical approaches.

In view of the international nature of the IB and its commitment to intercultural understanding, the Language A: Literature course embodies the idea that cultural identity alone does not define an author, rather a writer is engaged with other cultures. This course is not limited to the study of works from one culture or written in one language but is designed to include and welcome all literature, or what Goethe called the *Weltliteratur* (world literature or universal literature).

In the first year of this two-year program, students will

study “works in translation,” namely *Love Medicine* by Louise Erdrich, *La Cerisaie* by Anton Chekhov, and *Hedda Gabler* by Henrik Ibsen (HL). As well, students will study the options in *Le Ventre de l’Atlantique* by Fatou Diome, *Stupeur et tremblements* by Amélie Nothomb, and *L’Ingénu* by Voltaire.

In the second year, students will study the following works: *Antigone* by Jean Anouilh, *Kamouraska* by Anne Hébert, and the poetry of Victor Hugo. In the spring, students will prepare for the Paper One Exam (a two-hour analysis of a previously unseen prose or verse passage) and the Paper Two Exam (a two-hour, genre-specific exam requiring analysis across the following plays that we will read in the spring: *Le Mariage de Figaro* by Beaumarchais, *Le Jeu de l’amour et du hasard* by Marivaux, *Dom Juan* by Molière, and *Les Bonnes* by Jean Genet [HL]).

GROUP 2

German B - Standard Level: Grades 11 and 12

The German B (SL) course provides students with the opportunity to acquire or develop an additional language and to promote an understanding of other cultures through the study of language. It is designed for students who possess a degree of knowledge and experience in German. This course is taught in German and meets 150 hours during the school year.

The aims of German B (SL) are to:

- develop students’ intercultural understanding

- enable students to understand and use the language they have studied in a range of contexts and for a variety of purposes
- encourage, through the study of texts and through social interaction, an awareness and appreciation of the different perspectives of people of other cultures

The assessments aim to test students’ ability to understand and use the German language. Students will be assessed on their ability to:

- communicate clearly and effectively in a range of situations, demonstrating linguistic competence and intercultural understanding
- use language appropriate to a range of interpersonal and/or cultural contexts
- understand, analyze, and respond to a range of written and spoken texts

Spanish B - Standard Level: Grades 11 and 12

The Spanish B (SL) course provides students with the opportunity to acquire or develop an additional language and to promote an understanding of other cultures through the study of language. It is designed for students who possess a degree of knowledge and experience in Spanish. This course is taught in Spanish and meets 150 hours during the school year.

The aims of Spanish B (SL) are to:

- develop students’ intercultural understanding
- enable students to understand and use the language they have studied in a range of contexts and for a variety of purposes

- encourage, through the study of texts and through social interaction, an awareness and appreciation of the different perspectives of people of other cultures

The assessments aim to test students' ability to understand and use the Spanish language. Students will be assessed on their ability to:

- communicate clearly and effectively in a range of situations, demonstrating linguistic competence and intercultural understanding
- use language appropriate to a range of interpersonal and/or cultural contexts
- understand, analyze, and respond to a range of written and spoken texts

Spanish B - Higher Level: Grades 11 and 12

The Spanish B (HL) course provides students with the opportunity to acquire or develop an additional language and to promote an understanding of other cultures through the study of language. It is designed for students who possess a degree of knowledge and experience in Spanish. This course is taught in Spanish and meets 240 hours during the school year.

The aims of Spanish B (HL) are to:

- develop students' intercultural understanding
- enable students to understand and use the language they have studied in a range of contexts and for a variety of purposes
- encourage, through the study of texts and through social interaction, an awareness and appreciation of the different perspectives of

people of other cultures

The assessments aim to test students' ability to understand and use the Spanish language. Students will be assessed on their ability to:

- communicate clearly and effectively in a range of situations, demonstrating linguistic competence and intercultural understanding
- use language appropriate to a range of interpersonal and/or cultural contexts
- understand, analyze, and respond to a range of written and spoken texts
- understand and use works of literature written in the target language

GROUP 3

Economics - SL and HL: Grades 11 and 12

Economics SL is divided into four sections: microeconomics, which covers competitive markets, elasticity, government intervention, and market failure; macroeconomics, which looks at the level of overall economic activity, aggregate demand and aggregate supply, macroeconomic objectives, and fiscal, monetary, and supply-side policies; international economics, which involves learning about international trade, exchange rate, the balance of payments, and economic integration; and development economics, which looks at economic development and how it is measured, the role of domestic factors, international trade, foreign direct investment (FDI), foreign aid and multilateral development assistance, international debt, and, finally, the balance between markets and intervention.

History - SL and HL: Grades 11 and 12

The IB History course is a demanding writing-intensive two-year program that covers the global events and themes that have shaped the modern world. The course traces modern world history through the lens of society, politics, and economics, beginning with the Industrial Revolution, which, it can be argued, ushered in the modern global civilization of the past two centuries. The changes wrought by the new industrial society began in England and spread to Western Europe, the United States, Asia, and, eventually, all over the globe. In the process, new social classes emerged that demanded reforms in the workplace and, more importantly, representation in government. Thus, the Industrial Revolution merged with the political ideals that flowed from the French and American Revolutions, creating what historians call the “Dual Revolution.”

Students will study the Dual Revolution, with specific emphasis on the process of industrialization and the evolution and development of a variety of democratic states across the globe, focusing on such examples as Great Britain, the United States, Japan, and South Africa. In addition, they will complete an in-depth study on Rights and Protest (the Civil Rights Movement in the U.S. and Apartheid in South Africa).

Students who choose Higher-Level History will also engage in a more in-depth study of the Americas, studying the society, politics, and economics of the region through selected themes.

All students will develop their ability to analyze and interpret both primary and secondary sources. In the second year of the program, students will be required to complete a “Historical Investigation,” an IB-specific research paper in which they not only conduct research but also critically evaluate their sources and reflect on the challenges facing historians.

GROUP 4

Biology - SL and HL: Grades 11 and 12

The emphasis of this course is on a practical approach in which students design investigations, collect data, develop manipulative skills, analyze results, and evaluate and communicate their conclusions. Students develop the skills to work independently and collaboratively as they parallel the way in which scientists work in the broader community.

Topics covered in the first year will include cell biology, molecular biology, metabolism (photosynthesis and respiration), evolution and biodiversity, ecology, and human physiology. Topics in the second year will include plant biology, ecology, cell division, genetics, genetics and evolution, and molecular biology (nucleic acids).

The objectives of the course are to develop experimental and investigative skills, to create awareness of the ethical implications of using science and technology, and to develop an appreciation of the potentials and limitations of science and technology in understanding the workings of nature.

Difference between SL and HL

SL and HL students undertake a common core syllabus, a common internal assessment (IA) scheme, and a common Group 4 project and have overlapping elements in the option studied.

Whereas the skills and activities 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 (HL) material and in the common option. The difference between SL and HL is mainly one of breadth and depth.

Chemistry - SL: Grades 11 and 12

This is a two-year course that follows the specifications of the curriculum of the International Baccalaureate. Class will meet for a total of four periods a week; twice for a single period, and once for a double-period assigned mostly for labs. Students will learn about measurement and data-processing throughout both years, especially during all experimental work.

Topics covered in the first year (11th grade) are atomic structure, periodicity, chemical bonding, stoichiometric relationships, energetics, and kinetics.

Topics covered in the second year (12th grade) include equilibrium, acids and bases, redox processes, and organic chemistry. We will then work on one of the four following options: materials, biochemistry, energy, or medicinal chemistry.

In addition to the previously mentioned topics, towards the end of the first year, students will work on a multidisciplinary project (Group 4 project) in collaboration with students from all sciences.

Independently, at the beginning of the second year, every student will have to select an individual investigation on a theme of their choice to explore, analyze, and evaluate, and then communicate their findings as part of their Internal Assessment (IA), which will be part of their IB final grade.

As it is with all IB Learners, the students in this course will learn to be inquirers to ask themselves questions, and they will have to be good thinkers to be able to find an answer to their question. They have to be risk-takers and pursue their ideas, even if they are not that obvious, and to be reflective, in order to constantly rethink their methods. Most of all, they will learn to be good communicators, to collaborate with others and properly present their findings.

Physics - SL and HL: Grades 11 and 12

Topics covered in year one will include Measurement and Uncertainty; Mechanics; Waves; Circular Motion and Gravitation; and Electricity and Magnetism. There will be a self-study unit on Energy over the winter break. Topics for year two will include Thermal Physics; Atomic, Nuclear, and Particle Physics; Energy Production; and an IB "Option" Topic, which will be Astrophysics.

The objectives of the course are to build and learn to apply a body of knowledge about physics and the methods and techniques of scientific thinking; to develop experimental and investigative scientific skills; and to encourage an appreciation for the history and limitations of humanity's remarkable progress in applying the scientific method to understand the workings of nature.

Difference between SL and HL

The HL Physics course is designed to give students a

good preparation for the demands of university calculus-based courses in physics. Students with a strong interest in fields such as engineering, physics, mathematics, or architecture should take this course. A high IB score in HL Physics will enable a student to place out of the first semester of physics at many U.S. universities. Students who do not expect to pursue any further study of physics at the university level should consider SL.

SL and HL students study the same set of “core” topics. HL students study some of those topics in greater depth. Both levels will undertake an “Internal Assessment,” in which the student independently investigates a topic of interest to him or her. The course is taught in English.

GROUP 5

The IB program offers three strands of mathematics (Mathematical Studies Standard Level, Mathematics Standard Level, and Mathematics Higher Level), based on the interest, needs, and capabilities of the students.

Mathematical Studies - SL: Grades 11 and 12

The objective of the IB Mathematical Studies course is to build confidence and encourage an appreciation of mathematics in students who do not anticipate a need for mathematics in their future studies. The course will enable students to develop logical, critical, and creative thinking, an understanding of the principles of mathematics, patience and persistence in problem-solving, as well as the ability to communicate clearly and confidently in a variety of contexts. The curriculum will focus on 140 hours over two years of instruction on eight

topics—number and algebra, sets, logic and probability, functions, geometry and trigonometry, statistics, introductory differential calculus, and financial mathematics—and a student-led project.

IB Mathematics - SL: Grades 11 and 12

This course is designed for students who wish to gain a degree of understanding and competence to better understand their approach to other subjects. The curriculum will focus on 150 hours over two years of instruction on the following topics: functions, sequences and series, circular functions and trigonometry, vectors, statistics and probability, and calculus. In addition, students will prepare a short exploration on a topic of their choosing (Mathematical Exploration). This will allow them to investigate an area of interest, which may or may not be connected to the curriculum but should be at or above the level of the course. A graphing calculator is required. This course is taught in English.

IB Mathematics - HL: Grades 11 and 12

This course is designed for students who wish to study mathematics in depth, either as a subject in its own right or to pursue their interests in areas related to mathematics. The curriculum will focus on 250 hours over two years of instruction on the following topics: algebra, functions, equations’ circular functions, trigonometry, vectors, statistics and probability, and calculus.

Calculus Option: Students in HL will do an additional unit on calculus covering a deeper range of topics, including Taylor series and Maclaurin series.

Mathematical Exploration: Students will prepare a short

exploration on a topic of their choosing. This will allow them to investigate an area of interest, which may or may not be connected to the curriculum but should be at or above the level of the course. A graphing calculator is required. This course is taught in English.

CORE

Theory of Knowledge - Grades 11 and 12

Theory of Knowledge (TOK) is a course that fully explores what it means to think critically. Students focus on inquiring into the process of knowing, rather than on acquiring a specific body of knowledge. Students learn to examine how knowledge is built and evaluated by individuals and societies. Students recognize the validity of different perspectives, and they learn to test and challenge their own assumptions. As part of the Diploma Program core, TOK makes use of the knowledge gained in the other subject courses, as well as knowledge gained outside the classroom from the media or through CAS (Creativity, Activity, Service), for example, to pursue its exploration. While TOK is not a traditional content-focused course, to say that TOK is a course without content would be misleading. In order to succeed, students must become fluent in the specific analytical terminology of TOK and know and be able to analyze the various Ways of Knowing (WOKs), as well as the various Areas of Knowledge (AOKs). Each Area of Knowledge has a specific Knowledge Framework, which students will learn as well.

The central features of the TOK course are critical analysis questions, or Knowledge Questions. In order to effectively create and “unpack” Knowledge Questions,

students need to be able to analyze knowledge claims and distinguish between shared knowledge (the sort gained from studying a given content area, for example) and personal knowledge (the sort that is difficult to communicate to others, such as experiential knowledge or certain abilities).

There are two assessment tasks in the TOK course: the essay and the presentation. At the end of Year 1, students will prepare an oral presentation, to be assessed internally, based on a real-world situation, in which they explore a fundamental knowledge question that they have extracted from the situation. At the end of Year 2, students will write a TOK essay based on one of six prescribed titles published earlier in the year by the IBO. This essay is externally assessed and counts for two-thirds of the student's overall TOK exam score.

Creativity, Activity, Service (CAS)

CAS involves students in a range of activities alongside their academic studies. It enables students to enhance their personal and interpersonal development by learning through experience. It provides opportunities for self-determination and collaboration with others, fostering a sense of accomplishment and enjoyment from the work. Students reflect on their CAS experiences as part of the Diploma Program and provide evidence of achieving eight learning outcomes for CAS. Throughout the Diploma Program, CAS involves students in a range of activities alongside their academic studies.

The three strands of CAS, which are often interwoven with particular activities, are characterized as follows:

- *Creativity*: Arts and other experiences that involve creative thinking

- *Activity*: Physical exertion contributing to a healthy lifestyle, complementing academic work elsewhere in the Diploma Program
- *Service*: An unpaid and voluntary exchange that has a learning benefit for the student. The rights, dignity, and autonomy of all those involved are respected.

In order to demonstrate these concepts, students are required to undertake a CAS Project. The project challenges students to:

- show initiative
- demonstrate perseverance
- develop skills such as collaboration, problem-solving, and decision-making

CAS is also an important counterbalance to the academic pressures of the Diploma Program. This course is taught in English.

Extended Essay (EE)

The extended essay is an in-depth study of a focused topic chosen from the list of approved Diploma Program subjects—normally one of the student’s six chosen subjects for the IB diploma. It is intended to promote high-level research and writing skills, intellectual discovery, and creativity. It provides students with an opportunity to engage in personal research on a topic of their choice, under the guidance of a supervisor. This in-depth study leads to a major piece of formally presented, structured writing in which ideas and findings are communicated in a reasoned and coherent manner, appropriate to the subject chosen.

The extended essay is compulsory for all Diploma Program students. It is the result of approximately 40 hours of work by the student and presented as a formal piece of scholarship containing no more than 4,000 words. In the course of working on the extended essay, students are provided with the opportunity to develop research and communication skills, develop creative and critical-thinking skills, engage a systematic process of research appropriate to the chosen subject, and experience the excitement of intellectual discovery. Although students are provided with some guidance from their supervisors at various stages of the process, the extended essay is largely meant to provide students with the opportunity to engage in independent research and writing.

The extended essay is externally assessed against common criteria, which is interpreted in ways appropriate to each subject. In combination with the grade for Theory of Knowledge, the extended essay contributes up to three points to the total score for the IB diploma. This course is taught in English.

