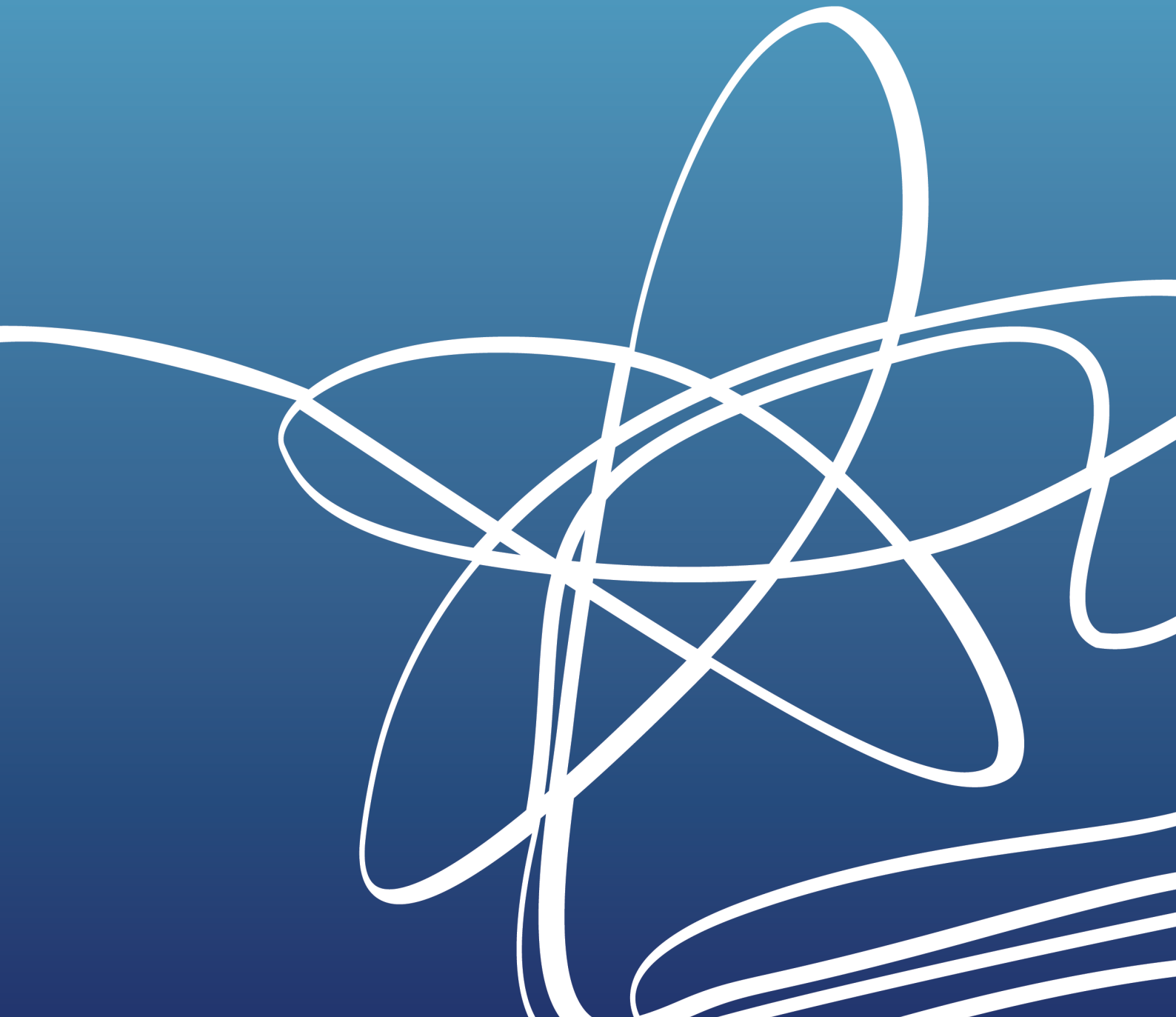


High School **CURRICULUM OVERVIEW**

Carlucci American International School of Lisbon



HIGH SCHOOL: Program Overview

Introduction

CAISL's High School Program is designed to provide a balanced program of studies that continues to support students' competence within core areas while providing a wide range of program choice that will align with their interests as well as provide a secure basis for continuing onwards to post-Secondary education. As students' progress through High School, they take on more responsibility for choosing the path they wish to take towards graduation. In the final two years of our High School Program, students may choose to enroll within the International Baccalaureate Diploma Program (IBDP) while also earning credits leading towards an American High School Diploma. Regardless as to whether students choose the full IBDP or not, CAISL's High School program provides all students with a solid academic foundation that will leave them well prepared to excel in their post-High School studies anywhere in the world.

Ted Fuller

Secondary School Principal

The American High School Diploma

All CAISL students work toward the American High School Diploma, awarded according to the requirements set by the Board of Trustees. This diploma, recognized for entry into Portuguese universities, covers coursework and graduation requirements from Grades 9 through 12 and does not require external examinations.

In addition to this diploma, students may choose to pursue the International Baccalaureate (IB) Diploma during their final two years of high school. This decision is made at the end of Grade 10. Students pursuing the IB Diploma must also fulfill all High School Diploma requirements, along with the additional components of the IB program, including external examinations in May of their final year.

The present Program Overview focuses on the four-year American High School Diploma. Details of the IB Diploma Program are available in a separate Handbook, with key parameters of both programs outlined in the following pages.

To Earn an American High School Diploma from CAISL, a student must...

- 1) Complete eight full-time semesters in Grades 9 through 12 at CAISL or a school deemed by CAISL to be equivalent, with a minimum of 8 courses per semester in grades 9 and 10, and 7 courses in Grades 11 and 12.
- 2) Be enrolled as a full-time student at CAISL in Grade 12 with no fewer than 7 classes, one of which, with the Secondary Principal's approval, may be from an accredited online provider.
- 3) Earn 27 credits, distributed as follows:
 - a. 4 credits in English/Language Arts
 - b. 2 years of English for Speakers of Other Languages is accepted
 - c. 3 credits in Mathematics (Algebra I or higher)
 - d. 3 credits in Science (of which at least 2 must be laboratory science)
 - e. 3 credits in Social Sciences
 - f. 2 consecutive years in a Language other than English
 - g. Portuguese as a Native/Fluent Language
 - h. World Languages—Chinese, French, Portuguese, Spanish
 - i. Chinese as a Native/Fluent Language
 - j. 3 credits in Physical Education
 - k. 1 credit in Information Technology or demonstrated proficiency
 - l. 1 credit in Fine Arts (Music, Art, Drama)
 - m. 7 credits in elective courses: An Elective Course is any course in any subject beyond that required for graduation.
 - n. Successful completion of a Graduation Project within the last 3 semesters prior to Graduation.

A Note About “Virtual High School Learning”

CAISL partners with VHS Learning to expand the range of courses available to High School students. The full course catalog can be found on the VHS Learning website (<https://vhslearning.org>).

VHS Learning is intended to complement, not replace, CAISL's own offerings. As a general rule, if CAISL offers a course (or a close equivalent) it may not be taken through VHS. Students in Grades 9 through 12 are eligible to enroll, with priority given first to students taking Advanced Placement (AP) courses and then to older students.

Grades and credits earned through VHS Learning appear on the student's CAISL transcript. One key advantage of VHS Learning is its offering of 23 AP courses, which are college-level and span either a semester or a full year. These courses culminate in an external AP exam in May. Strong AP exam results may qualify students for advanced standing or college credit at U.S. universities and can also support admissions to universities in other countries, including Portugal.

For any VHS Learning course approved for High School credit, CAISL covers the course fee. Students receive support from the VHS Learning course teacher, an on-site Coordinator, and a CAISL subject-specific teacher.

GRADES 11 & 12 PROGRAM OPTIONS

American High School Diploma	International Baccalaureate Diploma
<p>Fulfilment of the High School Diploma graduation requirements ensures that students study core academic areas while also pursuing individual interests, including the creative and performing arts, design, information technology, and sports—both curricular and extracurricular.</p>	<p>Prescribes six areas of study with very little deviation permitted.</p>
<p>Completion of a Graduation Project.</p>	<p>Fulfilment of the High School Diploma graduation requirements ensures that students study core academic areas while also pursuing individual interests, including the creative and performing arts, design, information technology, and sports—both curricular and extracurricular. The Theory of Knowledge (TOK) course, Extended Essay and Creativity, Activity, Service (CAS) programs are required.</p>
<p>Courses are taken each academic year to meet the graduation requirements; students may take different subjects in Grades 11 and 12.</p>	<p>Courses follow a two-year curriculum, with changes permitted only within the first two months of Grade 11.</p>
<p>Assessment of student work, including end-of-course (exams), is conducted by CAISL Teachers.</p>	<p>Student work submitted for the IB Diploma is “moderated” by IB Examiners (not CAISL teachers). In May of the 2nd year of the program, students take exams which are written by the IB Organization and assessed by IB Examiners.</p>

UNIVERSITY ADMISSIONS

American High School Diploma	International Baccalaureate Diploma
<p>Accepted as valid Secondary qualifications for university entrance in most countries</p>	<p>Accepted as valid Secondary qualification for university entrance in most countries.</p>
<p>Accepted at all Universities in the USA; if entry into a highly competitive university is sought and the IBDP was available to the student, the student will need to explain why they did not pursue the additional qualification.</p>	<p>Accepted at all Universities in the USA and with high enough scores may result in ‘advanced standing’ (being exempt from some requirements or awarded college credit).</p>

American High School Diploma

Accepted by UK universities but it is essential to confirm with each university how the HSD grades are assessed.

Accepted by Portuguese universities, AP Exams or the Portuguese *Provas* must also be taken; CAISL is licensed by the Portuguese Ministry of Education to issue an American HS Diploma.

Accepted by most other countries although it is vital to check the specific country requirements well in advance.

International Baccalaureate Diploma

Accepted by UK universities as there is an established table for grade conversions.

Accepted by Portuguese universities.

Accepted by most other countries although it is vital to check the specific country requirements well in advance.

GRADUATION REQUIREMENTS

In Grades 11 and 12, the course content in some cases is the same for both the High School Diploma and the IB Diploma.

American High School Diploma

To earn credit, students must meet all requirements for successful completion as set and assessed by CAISL teachers, with oversight from the High School Coordinator and the Secondary Principal.

International Baccalaureate Diploma

Students must fulfill all High School Diploma requirements and submit IB-required assignments for moderation or assessment by the IB Organization, which determines the final score and whether the IB Diploma is awarded. (For more information, see the CAISL IB Diploma Program Handbook.)

	Grade 9	Grade 10	Grade 11	Grade 12
LANGUAGE ARTS	English Literature & Composition	United States Literature	Adv. Language & Literature (Y1)	Adv. Language & Literature (Y2)
	EAL	EAL	Adv. English Language (Y1)	Adv. English Language (Y2)
MATH	Geometry	Algebra 2	Mathematical Applications (Y1)	Mathematical Applications (Y2)
	Algebra 1	Geometry	Mathematical Analysis (Y1)	Mathematical Analysis (Y2)
SCIENCE			Adv. Mathematical Applications (Y1)	Adv. Mathematical Applications (Y2)
			Adv. Mathematical Analysis (Y1)	Adv. Mathematical Analysis (Y2)
	Physics	Chemistry	Adv. Biology (Y1)	Adv. Biology (Y2)
	Biology	Biology	Adv. Chemistry (Y1)	Adv. Chemistry (Y2)
			Adv. Physics (Y1)	Adv. Physics (Y2)
		Physics 2 (Science Elective)	Adv. Environmental Science	Adv. Environmental Science
			Greentech (Science Elective)	
SOCIAL STUDIES			Anatomy and Physiology (Science Elective)	
	Modern Civilizations	History of the USA	World History (Y1)	World History (Y2)
			Adv. Economics (Y1)	Adv. Economics (Y2)
			Adv. Psychology (Y1)	Adv. Psychology (Y2)
			Adv. Business Studies (Y1)	Adv. Business Studies (Y2)
			Adv. Philosophy (Y1)	Adv. Philosophy (Y2)
			Introduction to Economics (Social Studies Elective)	
PORTUGUESE			Introduction to Psychology (Social Studies Elective)	
			Introduction to International Relations (Social Studies Elective)	
	Língua Portuguesa 9	Língua Portuguesa 10	Lit. e Composição Portuguesa (Y1)	Lit. e Composição Portuguesa (Y2)
FOREIGN LANGUAGES	PAL (Levels 1, 2, 3, 4)		Adv. Portuguese (Y1)	Adv. Portuguese (Y2)
	French (Levels 1, 2, 3, 4)		Adv. French (Y1)	Adv. French (Y2)
	Spanish (Levels 1, 2, 3, 4)		Adv. Spanish (Y1)	Adv. Spanish (Y2)
PHYSICAL EDUCATION	Grade 9 PE	Grade 10 PE	Advanced PE	
IT	Programming & Game Development (IT Elective)			
	3D Graphics (IT Elective)			
	Electronics & Robotics (IT Elective)			
ART			Adv. Computer Science (Y1)	Adv. Computer Science (Y2)
	High School Art (Level 1 and Level 2)			
DRAMA			Adv. Art (Y1)	Adv. Art (Y2)
	High School Drama			
MUSIC	Introduction to Theater Studies			
	Introduction to Film			
			Adv. Theater Arts (Y1)	Adv. Theater Arts (Y2)
	Choir (Music Elective)			
	String Orchestra (Music Elective)			
PSHE	HS Beginner Keyboard (Music Elective)			
	History & Music: A Cultural Journey through Time (Music Elective)			
			Adv. Music Study (Y1)	Adv. Music Study (Y2)
	Grade 9 PSHE	Grade 10 PSHE	Grade 11 PSHE	Grade 12 PSHE
				Graduation Project

LANGUAGE ARTS

English in Grades 9 and 10

English Literature & Composition

Grade 9 English Literature and Composition students study a variety of text types, both literary and non-fiction, further honing their skills in literary analysis. Works come from different genres, cultures, and time periods, with an emphasis on the historical eras covered in the *Modern Civilizations* class taken concurrently. Through this, students explore how cultural experiences shape literature. They analyze thematic development within texts and examine how different works treat similar themes in distinct ways. Grade 9 students use textual evidence (both explicit and inferred) to support summaries and analyses. They also evaluate the impact of various authorial choices and determine an author's purpose through close reading.

Grade 9 students write regularly over both extended and short time frames for a range of tasks, purposes, and audiences, with a strong focus on developing clear and arguable thesis statements. They use the writing process to produce well-organized texts, including an introduction, clear thesis, relevant supporting details, precise language, formal style, and an appropriate conclusion. Technology is incorporated into all stages of writing, from development to collaboration and production.

Students also listen critically to various media, identify and analyze information from multiple formats, engage in collaborative discussions, and deliver oral presentations. They pose questions that encourage elaboration, respond to others with relevant observations, and use multimedia and visual aids effectively. In both speaking and writing, they apply the conventions of standard English, while using appropriate eye contact, tone, and volume.

Grade 10 United States Literature

Grade 10 United States Literature builds on the skills developed in Grade 9, with a continued emphasis on critical thinking, reading, and thesis-driven writing. Students engage with a range of literary and non-fiction texts, including novels, poetry, and essays, refining their ability to cite strong, thorough evidence to support their analyses. They explore the meaning of words and phrases (both literal and figurative) and examine how an author's word choices influence meaning and tone.

Grade 10 students write persuasively, supporting claims with valid reasoning and relevant evidence. They use the writing process to craft well-organized, multi-paragraph texts with clear thesis statements, precise language, formal style, and appropriate conclusions. Technology supports all stages of the process, from drafting to peer review.

Students initiate and participate effectively in collaborative discussions, building on the ideas of others while presenting their own clearly and persuasively. They deliver presentations that are concise, logical, and well-structured, ensuring that the style, organization, and content are appropriate for the audience, purpose, and task.

English as an Additional Language (EAL) *Grades 9 and 10 only*

Students who require specialized support in English may be placed in English for Speakers of Other Languages (ESL). This program develops academic and social competence in English for students who have reached intermediate or advanced levels of acquisition but are not yet ready for English Literature and Composition with native or fluent speakers. Instruction is tailored to individual needs and may include small-group lessons or in-class support in mainstream courses.

ESL teachers regularly monitor student progress using work samples, observations, and standardized testing, adjusting instruction as needed. Students transition out of the program when they can produce work and demonstrate comprehension at a level comparable to their peers.

English in Grades 11 and 12

Students in Grades 11 and 12 choose one of two English pathways: **Advanced English Language and Literature**, or **Advanced English Language**. Each course spans two years; Year 1 may be taken independently, but Year 2 requires successful completion of Year 1.

Advanced English Language and Literature

Students explore the complex relationship between readers, writers, and texts. They examine how works reflect and respond to the time and place in which they were created, and how different texts influence and interact with one another. The course emphasizes both the practical and aesthetic dimensions of language, encouraging students to consider how language shapes communication, reflects human experience, and impacts our understanding of the world. Throughout the program, students analyze the effects of language choices, literary forms, and contextual elements on meaning. Both written and spoken work require a formal and appropriate register.

Advanced English Language Acquisition

This course is designed for students who are not native speakers but who have the equivalent of four years of English study. In the first year, students explore the themes of *Identities*, *Experiences*, *Social Organization*, and *Sharing the Planet* while developing advanced listening, speaking, reading, and writing skills. They practice maintaining oral exchanges with fluency and deepen their understanding of cultural features in English-speaking contexts, such as traditions, accents, and expressions. In the second year, the theme of *Human Ingenuity* is introduced, and students focus on using language with precision and accuracy to express ideas across a range of topics. The course also develops international mindedness through the study of language and culture.

MATHEMATICS

Math in Grades 9 and 10

Geometry

Most Grade 9 students study Geometry, although some may be enrolled in Algebra 1 if they have not yet taken it or need to strengthen their foundational skills. The Geometry course is designed to cultivate an in-depth understanding of mathematics while developing process skills through mathematical practices. Students learn to make sense of problems and persevere in solving them, reason abstractly and quantitatively, construct logical arguments, and critique the reasoning of others. They model with mathematics, use appropriate tools strategically, attend to precision, identify patterns, and apply structural reasoning.

Through these skills, students establish and use triangle congruence criteria, drawing on rigid motions, formal constructions, and proof. They prove theorems and solve problems involving triangles, quadrilaterals, circles, and other polygons. They apply reasoning to complete and explain geometric constructions, identify criteria for triangle similarity, and use similarity, the Pythagorean Theorem, and trigonometry to solve right triangle problems. They also use coordinate geometry to verify geometric relationships, explore the properties of quadrilaterals, and determine slopes of parallel and perpendicular lines. Finally, they extend their knowledge of two-dimensional shapes to examine cross-sections and the solids created by rotating two-dimensional figures.

Algebra 1

In Algebra 1, students continue to build their mathematical process skills, focusing on problem solving, reasoning, argumentation, and precision. They model real-world situations mathematically and strategically choose tools and methods to solve problems. Students work with linear equations and systems of linear equations, recognizing proportional equations as special cases and understanding slope as the constant of proportionality. They use linear equations to describe relationships between two variables, interpret bivariate data, and analyze the structure of equations, polynomials, and expressions with exponents and radicals. Students solve linear equations in one variable using properties of equality and logical equivalence, and they solve systems of two linear equations in two variables, interpreting their solutions geometrically.

Algebra 2

Most Grade 10 students study Algebra 2, although some may take Geometry if they have not yet completed it or need further reinforcement. Algebra 2 deepens students' understanding of functions, equations, and advanced algebraic concepts. Students produce and analyze graphs of functions, identify key features, and solve systems of equations using substitution, elimination, and matrix methods. They solve quadratic equations using factoring, completing the square, and the quadratic formula. They explore arithmetic and geometric sequences, apply binomial expansion, and study probability through the fundamental counting principle, permutations, and combinations. Students also derive equations for conic sections—parabolas, ellipses, and hyperbolas—and solve problems related to them.

Math in Grades 11 and 12

Mathematical Applications Year 1

This course recognizes the increasing role that mathematics and technology play in a diverse range of fields in a data-rich world. It emphasizes the meaning of mathematics in context, focusing on topics often used in applications or mathematical modeling. The course also includes topics traditionally part of a pre-university mathematics curriculum, such as calculus and statistics.

It is designed for students interested in social sciences, natural sciences, medicine, statistics, business, engineering, economics, psychology, and design. Student progress is evaluated through internal exams, summative projects/internal assessments, and quizzes.

In Year 1, students explore Number and Algebra, Functions, Geometry & Trigonometry, and Calculus.

Advanced Mathematical Applications Y1

This course recognizes the increasing role that mathematics and technology play in a diverse range of fields in a data-rich world. It emphasizes the meaning of mathematics in context, focusing on topics often used in applications or mathematical modeling, while also building a strong foundation in traditional pre-university mathematics such as calculus and statistics.

It is suitable for students interested in social sciences, natural sciences, medicine, statistics, business, engineering, economics, psychology, and design. Student progress is evaluated through internal exams, summative projects/internal assessments, and quizzes.

In Year 1, students study Number and Algebra, Functions, Geometry & Trigonometry, and begin Calculus. Students pursuing the advanced course are continuously challenged to explore further mathematical concepts, including Graph Theory, Differential Equations, Complex Numbers, and Vectors. Successful enrollment is recommended for students who have achieved at least an A in Algebra 2.

Mathematical Analysis Y1

Mathematical Analysis is for students who enjoy developing fluency in constructing mathematical arguments and developing strong analytical skills. Students explore both real and abstract applications of mathematics, with and without technology.

It is intended for students interested in mathematics, engineering, physical sciences, and some economics. In Year 1, topics include Sequences and Series, Binomial Expansion, Functions (Composition, Inverses, Transformations), Quadratic Functions, Exponential and Logarithmic Functions, Geometry & Trigonometry, and Differential & Integral Calculus. Successful enrollment is recommended for students who have achieved at least an A in Algebra 2.

Advanced Mathematical Analysis Y1

Advanced Mathematical Analysis is for students who enjoy challenging mathematical problem-solving and generalization. It develops fluency in constructing arguments and explores both real and abstract applications with and without technology.

Year 1 covers Sequences and Series, Binomial Expansion, Functions (Composition, Inverses, Transformations), Quadratic Functions, Exponential and Logarithmic Functions, Geometry & Trigonometry, Differential & Integral Calculus, and Proofs. Successful enrollment is recommended for students who have achieved at least an A in Algebra 2.

Mathematical Applications Y2

Mathematical Applications Year 2 builds on the foundation of Year 1, with a strong focus on applied mathematics and the use of technology to solve real-world problems. Students develop analytical and problem-solving skills across a wide range of topics and are encouraged to think critically about practical applications of mathematics. The course explores probability and statistics, including data analysis, measures of central tendency, standard deviation, and regression analysis. Students also study advanced applications of calculus, such as integration techniques, related rates, and optimization problems. Mathematical modeling is emphasized, with scenarios drawn from business, economics, social sciences, and natural sciences, allowing students to apply mathematical concepts to real-life situations. The course also covers non-linear functions and their applications. Assessment consists of internal exams, summative projects, and quizzes, with the requirement that students use a graphing calculator for all classwork and examinations.

Advanced Mathematical Applications Y2

Advanced Mathematical Applications Year 2 continues from Year 1, with a strong emphasis on applied mathematics, critical reasoning, and problem-solving in real-world contexts. It is particularly suitable for students planning higher education in social sciences, natural sciences, medicine, statistics, business, engineering, economics, psychology, and design. The course includes advanced probability and statistics techniques such as combinatorics, permutations, and probability distributions. In-depth applications of calculus, including differential and integral calculus, optimization, and modeling of real-world problems, are explored. Students study non-linear, exponential, and logarithmic functions, applying graphical and analytical techniques to analyze complex data sets. Extended mathematical modeling projects are required, encouraging creativity and analytical reasoning. Assessment consists of internal exams, summative projects, and quizzes, with graphing calculators required for all classwork and examinations.

Mathematical Analysis Y2

Mathematical Analysis Year 2 develops fluency in constructing arguments, critical reasoning, and problem-solving, building on the foundation from Year 1. Students explore both abstract and real applications of mathematics, strengthening their analytical and technical skills. The course covers advanced functions, including polynomial, rational, exponential, and logarithmic, as well as calculus, focusing on differentiation, integration, and applications to real-life problems. Geometry and trigonometry are studied in applied contexts, alongside statistics and probability, including advanced data analysis, regression, and distributions. Students also undertake an independent mathematical investigation, allowing them to explore a topic of their choice in depth. Completion of this course prepares students for further study in mathematics, engineering, physical sciences, or related disciplines.

Advanced Mathematical Analysis Y2

Advanced Mathematical Analysis Year 2 builds on Year 1 with a focus on abstract problem-solving, rigorous proofs, and advanced applications. It is intended for students who plan to study mathematics, engineering, physical sciences, or related fields at a higher level. The course includes complex numbers and their applications, systems of equations and inequalities in multiple variables, and vectors and vector spaces with geometric and physical applications. Advanced calculus techniques, including integration, differential equations, and real-world applications, are emphasized. Probability and statistics are studied in depth, covering advanced probability models, hypothesis testing, and regression analysis. Students also complete an independent mathematical exploration, undertaking a self-directed project on a topic of personal interest in mathematics. Graphing calculators and technology are used strategically for both learning and assessment.

SCIENCE

Science in Grades 9 and 10

Science classes in Grades 9 and 10 are delivered through four one-semester courses, designed to give students a broad and balanced introduction to the major scientific disciplines. The goal is to ensure that each student gains sufficient familiarity with physics, chemistry, and biology, allowing them to make informed decisions about further study and potential career paths in science, technology, engineering, or related fields. For students who may need to transfer to a school in another country, the courses can be taken out of the normal sequence—for example, completing both semesters of Biology in Grade 9.

Physics, Chemistry, Biology

Throughout Grades 9 and 10, students focus on developing key science and engineering practices. These include asking questions and defining problems, developing and using models, planning and carrying out investigations, analyzing and interpreting data, applying mathematics and computational thinking, constructing explanations and designing solutions, engaging in evidence-based argumentation, and obtaining, evaluating, and communicating scientific information. These skills are integrated into the study of specific content areas.

Grade 9

Physics Motion and Stability: Forces and Interactions; Energy: Transformation and Conservation.
Biology Ecosystems: Interactions, Energy and Dynamics; Biological Evolution: Unity and Diversity.

Grade 10

Chemistry: Structure, Properties, & Interactions of Matter; The Periodic Table; Chemical Reactions; Stoichiometry.
Biology: From Molecules to Organisms: Structures and Processes; Heredity: Inheritance and Variation of Traits

Physics 2 (Elective)

Physics 2 is an elective course, normally taken in Grade 10, designed for students who may wish to pursue a career requiring advanced study in physics. This course prepares students for the AP Physics 1: Algebra-Based exam and covers key topics in mechanics, electricity, and waves. Physics 2 is also recommended for students planning to take Advanced Physics or IB Physics in Grades 11 or 12.

Greentech (Science Elective)

Greentech offers a hands-on learning experience with a real-world focus, exploring emerging technologies that shape a sustainable future, critically analyzing environmental challenges, and advocating for positive environmental change. Students will develop an understanding of the impact of human activities on the environment and learn how green technologies relate to environmental, social, and economic sustainability. The course includes investigation of renewable energy sources, exploration of energy efficiency in sustainable practices, examination of sustainable materials and their applications in real-world design and understanding of the role of policies and advocacy in promoting green technologies and advancing a more sustainable future.

Anatomy and Physiology (Science elective)

Students planning to pursue Biology or Medicine are encouraged to take Anatomy and Physiology to acquire foundational knowledge of human anatomy and physiology. The course examines the major systems of the human body, the organs that comprise them, and how they function together to maintain internal balance, or homeostasis. Laboratory skills are developed through the use of microscopes, dissection techniques, and other lab equipment for hands-on experiments modeling human body functions. This course provides essential knowledge that will be further developed in Biology 2 (Grade 10) and IB/High School Biology (Grades 11 and 12).

Science in Grades 11 and 12

Students in Grades 11 and 12 have three core options for Science – Biology, Chemistry, and Physics – as well as one Science-Social Studies cross-curricular option, Environmental Systems and Societies. Each of these courses is designed as a two-year program. Year 1 may be taken independently, but Year 2 requires successful completion of Year 1.

Advanced Biology (Year 1 and Year 2)

Advanced Biology engages students in research and understanding of the living world at all levels, from cells to organisms and from the nano to the macro scale. Students are expected to come into the course with familiarity in scientific inquiry, basic statistics, mathematics, and chemistry. Year 1 focuses on cell biology, viruses, molecular biology, genetics, biodiversity, and evolution. Year 2 explores interactions in ecosystems and interactions of body systems.

Advanced Chemistry (Year 1 and Year 2)

Advanced Chemistry provides a qualitative and conceptual understanding of chemical principles, while requiring sufficient mathematical skills for proportional reasoning and calculations. Year 1 covers stoichiometry, atomic structure, periodic trends, chemical bonding, thermodynamics, kinetics, and equilibrium. Year 2 emphasizes independent laboratory investigations, culminating in an extensive lab

report, and studies acids and bases, redox reactions, organic synthesis, and the medicinal chemistry option.

Advanced Physics (Year 1 and Year 2)

Advanced Physics is an experimental science aimed at understanding and explaining the physical universe. Year 1 covers core topics including space, time, and motion; the particulate nature of matter; wave behavior; fields; and nuclear and quantum physics, along with several experimental investigations. Students should have a strong mathematical background and be studying mathematics at an appropriate level. Year 2 introduces astrophysics and involves designing and carrying out an investigation resulting in an extensive documented report.

Advanced Environmental Science (Year 1 and Year 2)

Advanced Environmental Science focuses on how human actions affect ecosystems, the importance of sustainable resource use, the dynamic relationship between environment and society, and raising awareness of local and global environmental issues. Students need foundational knowledge of scientific inquiry, basic statistics, and mathematics, as well as the ability to think holistically, considering cultural, ethical, economic, societal, and political factors. Year 1 covers the foundations of environmental science, ecosystems and ecology, biodiversity conservation, and aquatic food production systems and societies. Year 2 explores soil and terrestrial food production systems and societies, atmospheric systems, climate change and energy production, and human systems and resource use.

SOCIAL STUDIES

Social Studies in Grades 9 and 10

Social Studies in Grades 9 and 10 encompasses four primary areas of study: History, Culture and Perspective; Geography, People and the Environment; Economics, Innovation and Technology; and Civics, Government and Human Rights. In Grade 9 and Grade 10, the following courses are required:

Modern Civilizations

Grade 9 Modern Civilizations focuses on making connections between key events from recent history. The course is ordered thematically to provide students with the conceptual framework and factual background to understand issues in the world today. Students will develop the research, writing, and thinking skills necessary to become informed global citizens who are able to take action. Topics include Democracy vs. Dictatorship, Division, the impact of Imperialism and Colonialism, Communism and Capitalism, and Revolution.

History of the USA

Grade 10 History of the United States is ordered thematically to provide students with the conceptual framework and factual background to understand issues in the world today. Students will develop the research, writing, and thinking skills necessary to become informed global citizens who are able to take action. Topics include Democracy, Equality, Foreign Policy, and Civil Liberties.

Social Studies in Grades 11 and 12

There are five options for Social Studies in Grades 11 and 12. Environmental Systems and Societies, shown in the Science section, is a cross-curricular course that can be taken for either a Science or a Social Studies credit. Each of these courses is a two-year program, though Year 1 may be taken without continuing to Year 2. Year 2, however, may not be taken without successful completion of Year 1.

World History (Year 1 and Year 2)

World History is a twentieth-century world history course with a regional focus on Europe. In Year 1, students develop historiographical skills, source analysis, and analytical essay writing skills. These are applied in the study of the decline of Russian Tsarism, the Russian Revolutions, Stalinism, the causes, practices, and effects of World War I, the rise of fascism in Italy, the German Weimar Republic, and the rise of the Third Reich. There are no prerequisites for this course. In Year 2, the focus is on the causes, practices, and effects of World War II, the origins of the Cold War, the causes, practices, and effects of the Korean War, the rise to and consolidation of power of Kim Il Sung, and the causes, practices, and effects of the Spanish Civil War.

Advanced Economics (Year 1 and Year 2)

Advanced Economics explores microeconomics and macroeconomic ideas, theories, and models. The course focuses on the basic fundamental economic problem of scarcity and how society decides to allocate scarce resources. Students will use both social sciences and mathematical skills to solve complex global problems. In Year 1, the first semester covers microeconomics, from the basics of supply and demand to the complexities of market failures. The second semester focuses on macroeconomics, from the basics of Aggregate Demand and Aggregate Supply to the intricacies of monetary policy. In Year 2, topics include international trade and developmental economics, with an emphasis on the importance of trade, how the global market allocates resources, the growth of economies, and how economics can improve the lives of people in less developed countries.

Advanced Psychology (Year 1 and Year 2)

The Advanced Psychology course develops an awareness of how psychological knowledge is generated, developed, and applied. Ethical concerns in psychological inquiry are also a key focus. Students learn to understand the biological, cognitive, and sociocultural (BCS) influences on human behavior. In Year 1, BCS correlates of aggressive behavior are examined, with an introduction to concepts such as conformity, important theories like Social Identity Theory, and classic experiments such as those conducted by Asch. In Year 2, students research, conduct, and write an experimental report. They also deepen their understanding of cognitive processes, explore the origins of attraction, study the role of communication in personal relationships, and examine the causes and treatments of disorders such as PTSD, considering cultural differences throughout.

Advanced Business Studies (Year 1 and Year 2)

Advanced Business Studies examines business functions, management processes, and decision-making in contexts of strategic uncertainty. Students study how internal and external factors influence business decisions and the resulting impacts on stakeholders. In Year 1, emphasis is placed on Introduction to Business Management, Marketing, and Finance. Through the exploration of the four concepts underpinning the subject—Creativity, Ethics, Sustainability, and Change—students develop their understanding of interdisciplinary ideas from a business management perspective. Year 2 focuses on Human Resources and Operations, with strong connections drawn between all topics to promote a holistic understanding of business management.

Philosophy (Year 1 and Year 2)

Philosophy explores the nature of knowledge and the process of knowing. Through thought-provoking questions, students reflect on the knowledge, beliefs, and opinions they have built through both academic study and life experience. They examine the credibility of claims encountered in the media and evaluate methods of inquiry across different areas of knowledge, including Mathematics, the Arts, History, and the Human and Natural Sciences.

High School Social Studies Electives

In addition to the required Grade 9 and Grade 10 courses, students may also choose from the following electives. These are open to students in Grades 9 and 10, and may be taken by students in Grades 11 and 12 if schedules permit.

Introduction to Economics

This course offers a glimpse into the world of economics, focusing on the fundamentals of the discipline and the connections between economics, mathematics, and real-world issues.

Introduction to Psychology

This course provides students with an understanding of how and why people think and behave as they do, encouraging an inquisitive and critical approach to studying human behavior.

Introduction to International Relations

In this course, students study and discuss both current and historical global events from multiple perspectives, analyzing their impact on policy, trade, conflict, and cooperation. Skills in research, critical thinking, public speaking, diplomacy, and creative problem-solving are developed, with students working toward building solutions in alignment with the principles of the United Nations Charter.

PORTUGUESE NATIVE LANGUAGE

“Língua Portuguesa” in Grades 9 and 10

A disciplina de Língua Portuguesa 9 tem como objetivo centrar-se na leitura e interpretação de algumas das obras mais conceituadas da literatura lusófona: a interpretação de episódios da única epopeia portuguesa, a leitura de uma peça vicentina, a compreensão de narrativas de autor, contacto com textos líricos e a exploração de textos de carácter informativo. Este percurso visa desenvolver a consciência cultural e crítica do aluno. Promove-se a redação de textos argumentativos, expositivos e criativos. Na componente oral, fomenta-se a preparação e respetiva apresentação oral formal com recurso a instrumentos multimédia. O programa estimula, também, a aquisição e aplicação de conhecimentos linguísticos através do exercício contínuo de diversos conteúdos gramaticais e estilísticos. Para além disso, promove-se uma reflexão sobre a evolução fonética e semântica da língua portuguesa. Na eventualidade de os alunos transitarem de PAL Advanced para Língua Portuguesa Transicional, poderão ter uma avaliação diferenciada, atendendo a que se encontram em processo de transição.

A disciplina de Língua Portuguesa 10 tem como objetivo principal proporcionar a aquisição, numa perspetiva diacrónica, de uma visão panorâmica da literatura portuguesa que permita ao aluno caracterizar épocas, períodos e correntes literárias da nossa história, para nela situar os autores e as obras estudadas. Assim, do séc. XVI ao séc. XX, os alunos estudarão: a poesia trovadoresca, a lírica camoniana; o sermão barroco; uma narrativa de Camilo Castelo Branco; um romance queiroziano; o Modernismo e uma peça de Luís de Sttau Monteiro. Além disso, eventualmente, proceder-se-á à exploração de textos de carácter informativo. Desta forma, promove-se a análise textual aliada a uma reflexão sobre o uso de diversas estratégias linguísticas para construir significados; reflete-se sobre as diferentes características de cada género de texto analisado; redigem-se diferentes tipos de texto (texto persuasivo, texto expositivo, outros textos criativos) e organizam-se apresentações orais formais com recurso a instrumentos multimédia. Serão revistos alguns aspetos da gramática portuguesa, numa perspetiva de que a língua é o suporte da literatura.

Na eventualidade de os alunos transitarem de PAL Advanced para Língua Portuguesa Transicional, poderão ter uma avaliação diferenciada, atendendo a que se encontram em processo de transição.

“Língua Portuguesa” in Grades 11 and 12

This is a two-year course, but Year 1 may be taken without continuing to Year 2. Year 2, however, may not be taken without successful completion of Year 1.

No 1º ano, estudar-se-ão os temas: “Leitores, Escritores e Textos” e “Intertextualidade – relações textuais”, numa perspetiva linguística e literária. Os alunos desenvolverão as suas competências de análise de texto (literário e não literário) e redação de dissertações. Além disso, será desenvolvida a competência da expressão oral: apresentações orais, comentários orais, debate de ideias, entre outros.

Os objetivos da disciplina são os seguintes: conhecer, compreender e interpretar um conjunto de textos de tipologias e géneros diversificados; questionar e inferir os significados gerados pela língua e pelos

respetivos contextos, circunstâncias de produção e recepção dos textos; reconhecer relações de intertextualidade; analisar atentamente a língua, desenvolvendo a consciência do contexto para a construção dos significados; desenvolver as competências de análise estilística e compreensão de textos, tanto literários como não literários e expor as suas ideias, opiniões e análise quer oralmente, quer por escrito.

No 2º ano, estudar-se-á o tema “Tempo e Espaço”, uma perspetiva linguística e literária. Os alunos continuarão a desenvolver as suas competências de análise de texto e redação de dissertações e a competência da expressão oral.

Os objetivos da disciplina são os seguintes: conhecer, compreender e interpretar um conjunto de textos de tipologias e géneros diversificados; questionar e inferir os significados gerados pela língua e pelos respetivos contextos, circunstâncias de produção e recepção dos textos; reconhecer relações de intertextualidade; analisar atentamente a língua, desenvolvendo a consciência do contexto para a construção dos significados; desenvolver as competências de análise estilística e compreensão de textos, tanto literários como não literários e expor as suas ideias, opiniões e análise quer oralmente, quer por escrito.

FOREIGN LANGUAGES

Foreign Languages in Grades 9 through 12

Portuguese as an Additional Language (PAL), French/Spanish (Levels 1, 2, 3, 4)

Portuguese as an Additional Language (PAL) is required of all students who are new to the language except to those who are just beginning to learn English. It is taught at levels 1 to 4. This program will give students the opportunity to express themselves in Portuguese, orally and in writing, and to understand the culture of Portugal. Students who successfully complete the PAL program through to level 4 are eligible to move into the Portuguese Language and Culture class.

CAISL offers French and Spanish as Foreign Languages at Levels 1, 2, 3, and 4. The goal is to develop knowledge of the language and increase fluency so students can understand and communicate in a wide range of situations and contexts. Students also explore the cultures associated with the target language.

Foreign Languages in Grades 11 and 12

Students with more years of study in Portuguese, French, or Spanish may enroll in **Advanced Programs**. These are typically students who have had at least four years of prior study of the language but are not appropriate for a native/fluent speaker class.

This is a two-year course. Year 1 may be taken without continuing to Year 2, but Year 2 may not be taken without successful completion of Year 1.

Advanced Portuguese, French, Spanish (Y1, Y2)

Open to students who are not native speakers but who have the equivalent of four years of experience with the language. Themes studied include *Identities*, *Experiences*, *Social Organization*, and *Sharing the Planet*. Students develop listening, speaking, reading, and writing skills across a range of texts and registers. They refine oral and written communication to an advanced level, learn strategies to sustain oral exchanges, and build awareness of the role of language in relation to other areas of knowledge. Students also become familiar with cultural features of countries where the target language is spoken, including traditions, accents, and expressions.

In addition to the Year 1 themes, *Human Ingenuity* is introduced in the second year. The main objective is for students to express ideas and respond to a variety of topics with fluency and accuracy. Students continue developing international mindedness through the study of the target language and its cultures.

PHYSICAL EDUCATION

Physical Education in Grade 9

Grade 9 Physical Education focuses on helping students understand their physical selves, build enthusiasm for physical activity, and develop both physical skills and appropriate behavior related to sportsmanship and sports etiquette. Students take part in a balanced program that establishes a strong foundation in physical fitness, advances sport performance skills, introduces lead-up games, and develops an intermediate-to-advanced understanding of tactics in sports.

Physical Education in Grade 10

Grade 10 Physical Education continues the skill development from the previous level, with an emphasis on individual progress and enthusiasm for physical fitness. Students further refine their sports performance skills and deepen their tactical understanding, working at an intermediate to advanced level.

Advanced Physical Education (Grades 11 and 12)

Advanced Physical Education, normally taken in Grades 11 or 12, is designed to help students develop their physical fitness and gain a deeper understanding of the role physical activity plays in overall health. The program balances the development of fitness with participation in both team sports (when class size allows) and individual sports.

There are two levels, each a year-long course worth one credit. Students have the opportunity to learn new sports while mastering familiar ones, encouraging independence and autonomy in their lifelong physical activity habits. The course covers a wide range of topics, including personal fitness plans in the fitness room, badminton, tennis, cross country, track and field, orienteering, hiking, and physical fitness testing.

INFORMATION TECHNOLOGY (IT)

In Grades 9 through 12, CAISL High School students have the opportunity to explore a range of courses in technology, programming, and engineering.

Programming and Game Development

This course provides a comprehensive introduction to programming using Python, with a focus on game development. It is designed for beginners with little to no prior programming experience. By the end of the course, students will be proficient in Python and capable of creating games using the Pygame library. In the second semester, additional topics such as Artificial Intelligence, Web Development, and Databases are introduced. Throughout the year, students engage in project-based learning, applying their new skills to real-world challenges and bringing their creative ideas to life.

3D Graphics

This course offers an in-depth introduction to 3D graphics using Blender, a powerful open-source software. No prior experience in 3D modeling, animation, or rendering is required. By the end of the course, students will be able to create, texture, animate, and render original 3D models and scenes. The course also incorporates the use of 3D printers and laser cutters, allowing exploration in areas such as Product Design, Additive Manufacturing, and Mechanical Engineering. As a project-based class, each student follows an individualized learning path tailored to their interests. At the discretion of the Secondary Principal, 3D Graphics may count as an Information Technology or an Art credit.

Electronics and Robotics

Students explore modern robotics from three key perspectives: mechanics, electronics, and programming. Using the Arduino platform, they design and build projects with electronic components while learning the relevant physics principles. In the second semester, students work with the VEX platform to create original mechanical solutions, programming them to solve common robotics challenges.

IT in Grades 11 and 12

Advanced Computer Science is a two-year program, although Year 1 may be taken independently. Year 2, however, requires successful completion of Year 1. At the discretion of the Secondary Principal, this course may count as either a Science credit or an Information Technology credit.

Advanced Computer Science Year 1

Students are introduced to both theoretical concepts and practical applications in computer science. Core topics include system fundamentals, system design basics, computer organization, binary representation, logic gates, networks, computational thinking, and problem-solving. Students develop programming skills and explore procedural, logical, concurrent, and abstract thinking, as well as the connections between computational thinking and program design. The course includes an introduction to programming, abstract data structures, resource management, control structures, and object-oriented programming.

Advanced Computer Science Year 2

Students design and develop an internally assessed project: an application that addresses a real-world problem. This project encourages students to contribute positively to their environment by creating practical, impactful solutions. In addition, students prepare for questions on a complex, annually changing context (e.g., Computer Science and Health Systems, Autonomous Vehicles, Artificial Intelligence). Core topics include Java and its libraries, object-oriented programming, JavaFX technology, and Relational Database Management Systems.

FINE ARTS

Art in Grades 9 through 12

High School Art (Level 1 & Level 2)

High School Art has two levels, both focused on developing fundamental techniques in painting, drawing, and sculpture across a variety of media. Students also analyze artworks in the context of major historical movements and diverse cultural traditions.

Drama in Grades 9 through 12

High School Drama

This course focuses on building performance skills and culminates in one major production during the school year.

Introduction to Theater Studies

This course examines the dynamic relationship between the director and the actor, combining theory with practical exercises to develop students' understanding of stagecraft.

Introduction to Film

A year-long course exploring the techniques and storytelling methods that have made cinema one of the most influential and beloved art forms. Students create short films, music videos, and documentaries, developing both technical skills and artistic vision while gaining a broad understanding of the language of film.

Music in Grades 9 through 12

Choir

Choir offers students the opportunity to grow as vocal musicians. Rehearsals focus on vocal technique, harmony, and ensemble skills, with several performances throughout the school year forming an integral part of the course.

String Orchestra

String Orchestra is available to advanced string performers with prior consent of the instructor. The ensemble performs regularly throughout the school year, providing students with opportunities to refine technique and collaborate in a performance setting.

Beginning Keyboard Studies

Designed for students who are new to piano or seeking formal training, this course develops proper technique, including posture, hand position, and hand-eye coordination. Students learn to read and interpret musical notation, including clefs, notes, rhythms, time signatures, key signatures, scales, and triads. As skills progress, students are encouraged to choose and learn pieces that reflect their personal interests, fostering self-expression through music. Class activities include practice sessions, duet performance, and preparation for public performance. All materials, including *Alfred's Basic Adult Piano Lesson Book* and *Alfred's Basic Adult Music Theory Book*, are provided by the school.

History & Music: A Cultural Journey Through Time

This elective traces the development of music as a cultural force across civilizations and time periods. Students will examine how music reflects social, political, and spiritual life while also shaping human experience. The class emphasizes global traditions, cultural exchanges, and the universality of music as both art and history.

Fine Arts in Grades 11 and 12

In addition to the courses above, students in Grades 11 and 12 may choose from three advanced-level Fine Arts options. Each is a two-year program, though Year 1 may be taken without continuing to Year 2. Year 2 requires successful completion of Year 1.

Advanced Art (Year 1 and Year 2)

Students focus on building the ability to create an independent body of work, supported by formal art historical study of media, production methods, and analytical methodologies. They explore major art traditions from around the world, conduct sustained sketchbook investigations, and pursue thematic curatorial research. Out-of-class activities, including independent artwork, field trips, and workshops, are essential to the course. While prior completion of High School Art 1 and 2 is recommended, motivated students without this background may also succeed.

Students refine their artistic voice while completing the process portfolio, comparative study, and body of work for exhibition. They are expected to generate and pursue original project ideas independently, focusing on refinement, critique, and curation to create a cohesive final presentation that communicates their conceptual and expressive intentions.

Advanced Theater Arts (Year 1 and Year 2)

Students explore theater in varied cultural and historical contexts, developing performance, design, and production skills. The curriculum is student-driven within the framework of world theater traditions, ensuring exposure to multiple perspectives and roles, including creators, designers, directors, and performers. The year concludes with a collaboratively created theater project.

The second year emphasizes experimentation, risk-taking, and presentation of ideas, fostering creativity, confidence, and collaborative skills. Students continue refining their craft through practical work and group projects.

Advanced Music Studies (Year 1 and Year 2)

Students review and expand their understanding of music fundamentals, including scales, intervals, tonality, key signatures, meter, rhythm, and chords up to the seventh. They study the evolution of Western music from the Middle Ages to the Classical period while also examining ethnic music traditions from around the world. Coursework includes options in composition, solo performance, and group performance.

In Year 2, Students apply their musical knowledge to score analysis, studying the evolution of music from the Romantic period to contemporary trends. They continue exploring world music traditions, refine their chosen focus areas, and complete their music portfolios for submission.

PERSONAL, SOCIAL, & HEALTH EDUCATION (PSHE)

PSHE in Grades 9 through 12 is designed to help students develop personally, socially, and emotionally, while giving them strategies to navigate the challenges of adolescence. The program is taught by CAISL's Personal and Career/College Counselors through small group sessions, lunchtime activities, guest speakers, and collaborative projects. Although each grade level has specific themes, the exact content may vary depending on the needs of the students.

Grade 9 PSHE

Grade 9 students focus on the transition to high school, goal setting, personal skills, decision making, coping strategies, responsibility, peer pressure, personal safety, respect, and sexual health, including self-esteem, consent, and healthy relationships. Students maintain close contact with the Personal Counselor, College Counselor, and High School Coordinator for support.

Grade 10 PSHE

Grade 10 students explore self-awareness, responsibilities, integrity, motivation, decision making, coping skills, addictions, and sexual health, including consent and healthy relationships. Ongoing support is provided by the Personal Counselor, College Counselor, and High School Coordinator.

Grade 11 PSHE

Grade 11 students focus on time management, organizational and study skills, stress management, emotions, decision making, self-reflection, and financial awareness. Students remain in close contact with the Personal Counselor, College Counselor, and High School Coordinator.

Grade 12 PSHE

Grade 12 students prepare for the transition to college, life skills, stress management, decision making, time management, organizational skills, and college applications. Students also complete the Graduation Project, demonstrating independent pursuit of a personal interest with a Mentor Teacher.

Graduation Project

The successful completion of a Graduation Project is required to receive a CAISL High School Diploma, effective for the Graduation Class of 2020 and beyond. Through this project, students demonstrate their ability to independently pursue a personal interest in an academic or creative context, guided by a Mentor Teacher. The project begins midway through Grade 11 and must be completed by the end of the first semester of Grade 12.