

# High School

# Course Catalog

Version 2.0 - May 2025

The logo for NIS (Northwood International School) features a large, stylized, light gray letter 'A' that is partially obscured by the letters 'NIS' in a bold, dark red font. The 'A' has a curved, wing-like base that extends to the left and right.

**NIS**

Dear High School Parents:

The purpose of this course catalog is to assist Nakornpayap International School students, with the guidance of parents, in making subject choices for High School. Included in this guide is a brief description of the courses available per grade, an outline of the placement criteria and prerequisites for each course, and graduation requirements.

At NIS, students must successfully complete specific courses to be eligible to graduate; all graduation requirements must be met. It is a government requirement that all Native Thai students take Thai Language & Culture courses for each year of High School. College-level Advanced Placement (AP) courses are also offered in a number of different subject areas. Students are encouraged to take advantage of these challenging academic opportunities.

At NIS we aim to promote passionate, life-long learners who strive for academic excellence through a well-balanced and relevant curriculum. Our High School program will see doors open to universities worldwide. A NIS High School Diploma is a credential which will allow your child to pursue their dreams at colleges and universities anywhere they wish. NIS opens a world of possibilities by providing the rigorous education, inclusive cultural experiences, and global competencies required to **learn and lead, today and in the future.**

Please study this catalog carefully. All students will complete their subject choices in consultation with an appointed Academic Advisor prior to the end of the academic year. If you have any questions, please do not hesitate to contact one of the contacts below for more information.

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## **COURSE PLACEMENT CRITERIA**


In order to ensure success, there are specific criteria to place students in classes. These can include:

 **Placement Tests** - Teachers can provide a subject-based placement test to evaluate the academic suitability of student level of competence for that class.

 **Standardized test scores** ('Measure of Academic Performance' – MAP)  
- Students take the MAP test in Reading, Language Usage, and Mathematics in the fall and summer of each academic year. They are required to meet minimum prerequisite scores in order to be considered for academic placement in higher level courses.

 **Teacher recommendations** - Teacher recommendations can also be considered when applying for a place in higher level courses of study.

 **Course prerequisites** - Higher level courses can require certain course prerequisites to be eligible for study.

 **Student grades** - Some higher level courses require minimum grades in previous courses in order to be considered for a place.

## **GRADUATION REQUIREMENTS**

The NIS High School Program (Grades 9–12) is College Preparatory in nature, offering a variety of Advanced Placement (AP) courses. The graduation requirements and the elective courses offered ensure eligibility for universities and colleges around the world. Most courses have equal graduation credit (1 credit per semester). Students will not receive credit for the courses they fail.

<b>Graduation Requirements</b>	
<b>Subject(s):</b>	<b>Credits:</b>
English Language Arts	8
Mathematics	6
Social Science	4
Science	4
Global Languages*	4
Computer Science	2
Music or Art	2
Physical Education	2
Other Elective Requirements	28

**Total Credits Required for Graduation: 60**

\*Native Thai students must be enrolled in Thai Language and Culture courses while attending NIS.

### **Community Service:**

Community Service is a graduation requirement at NIS and will be recorded on the graduation transcript. Between grades 9-12, students are required to complete 60 hours of Community Service. These hours can be obtained via in-school opportunities, such as Summer School volunteering, peer tutoring, coaching, and Student Council volunteering, or arranged with organizations outside of school.

### **Grade Point Average (GPA):**

The High School uses the traditional 4.00 scale grading system. Credits are awarded for each course of study at the end of each semester. All numeric percentage grades are converted to a letter grade. Letter grades are then converted to grade points. Upon graduation, the Grade Point Average (GPA) will be recorded on the Official Student Transcript for each semester of study. A student's final High School Cumulative Grade Point Average is then also presented as an average of all semester GPAs.

GPA is calculated based on the following Course Grade Weighting tables:

<b>Regular Course Grade Weighting</b>			
<b>Percentage Grade</b>	<b>Grade</b>	<b>Grade Point</b>	<b>Standards Description</b>
95%-100%	A+	4.00	Far Exceeding
90%-94%	A	4.00	Exceeding
85%-89%	B+	3.00	Above
80-84%	B	3.00	Meeting
75-79%	C+	2.00	Approaching
70-74%	C	2.00	Developing
60-69%	D	1.00	Below
59% and below	F	0.00	Failing

<b>Advanced Placement (AP) Course Grade Weighting</b>			
<b>Percentage Grade</b>	<b>Grade</b>	<b>Grade Point</b>	<b>Standards Description</b>
95%-100%	A+	5.00	Far Exceeding
90%-94%	A	5.00	Exceeding
85%-89%	B+	4.00	Above
80-84%	B	4.00	Meeting
75-79%	C+	3.00	Approaching
70-74%	C	3.00	Developing
60-69%	D	1.00	Below
59% and below	F	0.00	Failing

**Other Codes:**

P: Passing (no credit)

I: Incomplete

WF: Withdraw Fail (no credit adjustment)

**Computation of Grade Point Average (GPA)**

A student's grade point average is determined by the following formula:

<b><i>Sum of GPA points X Credits Earned/ divided by the sum of Registered Credits.</i></b>
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## High School Course Selection Policy

- Consider graduation requirements and college acceptance requirements when planning your graduation pathway.
- Always refer to your college and career goals when making your decisions.
- Your elective choices are subject to teacher recommendations, prior grades, test scores, and any necessary entrance examinations.
- Course availability is subject to student enrolment number; courses with an insufficient number of students will not be offered.
- All courses of study are for the duration of an academic year unless a change is recommended by a teacher, or a student has passed a previously failed graduation requirement.

**\*\* Students must select either English Language Arts or AP English Language & Composition in both grades 11 and 12. \*\***

# HIGH SCHOOL

# COURSE DESCRIPTIONS

The following pages contain the descriptions and prerequisites for all of the High School courses. They are organized by subject area.

## **Subject Areas:**

<a href="#">English Language Arts</a> .....	page 8
<a href="#">Mathematics</a> .....	page 13
<a href="#">Sciences</a> .....	page 20
<a href="#">Social Sciences</a> .....	page 23
<a href="#">Fine Arts</a> .....	page 31
<a href="#">Thai Language</a> .....	page 33
<a href="#">World Languages</a> .....	page 35
<a href="#">Physical Education</a> .....	page 41
<a href="#">Computer Sciences</a> .....	page 43

## English Language Arts

Pathways	G9	G10	G11	G12
College Prep	ELA 9 (CP)	ELA 10 (CP)	ELA 11	ELA 12
Honors	ELA 9 (H)	ELA 10 (H)	AP English Language & Composition	

### **ELA 9 College Prep (CP)**

Grade Level: 9

Prerequisite: 8<sup>th</sup> grade English with recommended grade of "B/C" both semesters

MAP Score (Reading): 210 – 220

Writing Focus: Narratives (Reflective and Essays)

This rigorous course teaches NIS students to improve their vocabulary, reading, writing, listening, speaking, and research skills. This course challenges NIS students to engage in cooperative learning activities which challenge them to solve real-life problems and to develop their own critical thinking and problem-solving skills that will help them become independent thinkers and learners. Our students are exposed to a variety of literary genres such as poetry, short stories, novels, and plays; as well newspaper and magazine articles and other non-fictional texts. NIS students also learn to use the writing process as they write and revise their own paragraphs and craft at least two multi-paragraph essays per semester. They will also learn how to write and craft their own personal narratives. Reading and writing homework is assigned each week, and individual presentations and cooperative learning group projects are required each semester. All 9<sup>th</sup> Grade College Preparation classes are aligned to the United States Common Core Standards and Benchmarks.

### **ELA 9 Honors (H)**

Grade Level: 9

Prerequisite: 8<sup>th</sup> grade English with a grade of "A" both semesters

MAP Score (Reading): 220+

Writing focus: Narrative (Reflective and Essays)

This rigorous course helps NIS students refine their higher level critical thinking skills. This course challenges NIS Honors students to engage in cooperative learning activities which challenge them to solve real-life problems and to develop their own critical thinking and problem-solving skills that will help them become independent

thinkers and life-long learners. Our students are exposed to a variety of higher level literary genres such as poetry, short stories, novels, and plays; as well newspaper and magazine articles and other non-fictional texts. They will also learn how to write and craft their own personal narratives and even craft group and individual short stories. Outside reading is required each week. Students learn to use the writing process as they write four essays per semester. Reading and writing homework is assigned on a daily basis, and individual presentations and group cooperative learning projects are required each semester. All 9<sup>th</sup> Grade Honors classes are aligned to the United States Common Core Standards and Benchmarks.

### **ELA 10 College Prep (CP)**

*Grade Level:* 10  
*Prerequisite:* Recommended 9<sup>th</sup> grade English with a grade of "B/C" both semesters  
*MAP Score (Reading):* 215 – 225  
*Writing focus:* Informational

This rigorous course helps students master their critical thinking skills as they study literature from diverse cultures and time periods. This course challenges NIS students to engage in individual and cooperative learning activities which challenge them to solve real-life problems and to develop their own critical thinking and problem-solving skills. These thought-provoking texts and learning strategies help NIS students to become independent thinkers and learners as they creatively challenge the texts they read. This course utilizes the multi-ethnicity of NIS classrooms as a stimulus for lessons that provide opportunities for multicultural sharing and understanding. This allows our students to view ideas in a multi-cultural context that will help them develop an expanded global view and become more aware and productive global citizens. Students use the writing process to write three to four multi-paragraph essays per semester. Outside reading is required each semester. All lessons and activities are aligned to the United States Common Core 10<sup>th</sup> Grade Standards and Benchmarks.

### **ELA 10 Honors (H)**

*Grade Level:* 10  
*Prerequisite:* Recommended LA Honors (Grade 9) with grade of A or B  
*MAP Score (Reading):* 225+  
*Writing focus:* Informational/explanatory/process

This rigorous course helps students master their critical thinking skills as they study literature from diverse cultures and time periods. This course challenges NIS students to engage in individual and cooperative learning activities which challenge them to solve real-life problems and to develop their own critical thinking and problem-solving skills. These thought-provoking texts and learning strategies help NIS Honors class students to become independent thinkers and learners as they

creatively challenge the texts they read. This course utilizes the multi-ethnic nature of NIS classrooms as a stimulus for lessons that provide opportunities for multicultural sharing and understanding. This allows our students to view ideas in a multi-cultural context that will help them develop an expanded global view and become more awarded and productive global citizens. Students use the writing process to write three to four multi-paragraph essays per semester. Book clubs require extensive outside reading, and group projects are assigned each quarter. Reading and writing homework is assigned on a daily basis. Outside reading is required each semester. The ultimate goal of these classes is to assist students to adequately progress toward ELA AP classes and future academic success. All lessons and activities are aligned to the United States Common Core 10<sup>th</sup> Grade Standards and Benchmarks.

### **ELA 11 College Prep (CP)**

<i>Grade Level:</i>	11
<i>Prerequisite:</i>	10 <sup>th</sup> grade English required, recommended score of "C" or better
<i>MAP Score (Reading):</i>	220 – 230
<i>Writing Focus:</i>	Argumentative

By the end of grade 11, students will read and comprehend literature, including stories, dramas, and poems, in the grades 11-CCR text complexity band proficiently, with scaffolding as needed at the high end of the range. This includes demonstrating knowledge of eighteenth-, nineteenth- and early-twentieth-century foundational works of American literature.<sup>1</sup> Complexity for this course can be measured by the following texts: "Because I Could Not Stop for Death" by Emily Dickinson (1890), *The Great Gatsby* by F. Scott Fitzgerald (1925), *Common Sense* by Thomas Paine (1776), *Walden* by Henry David Thoreau (1854), and "Politics and the English Language" by George Orwell. Students are expected to read outside of class to complete novels and short stories outlined in the individual instructor's syllabus, which will be revised from time to time. In addition to reading seminal works of American literature, students will write for a variety of purposes, with a focus on argumentative writing in their Junior year.

### **ELA 11 Honors**

<i>Grade Level:</i>	11
<i>Prerequisite:</i>	10 <sup>th</sup> grade English required, recommended score of "A"
<i>MAP Score (Reading):</i>	230+
<i>Writing Focus:</i>	Argumentative

By the end of grade 11, students will read and comprehend literature, including stories, dramas, and poems, in the grades 11-CCR text complexity band proficiently,

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<sup>1</sup> Aligned to Common Core CCR Standards for Reading, including complexity bands for fiction and non-fiction selections. <http://www.corestandards.org/ELA-Literacy>

with scaffolding as needed at the high end of the range. This includes demonstrating knowledge of eighteenth-, nineteenth- and early-twentieth-century foundational works of American literature.<sup>2</sup> Complexity for this course can be measured by the following texts: “Because I Could Not Stop for Death” by Emily Dickinson (1890), *The Great Gatsby* by F. Scott Fitzgerald (1925), *Common Sense* by Thomas Paine (1776), *Walden* by Henry David Thoreau (1854), and “Politics and the English Language” by George Orwell. Students are expected to read outside of class to complete novels and short stories outlined in the individual instructor’s syllabus, which will be revised from time to time. In addition to reading seminal works of American literature, students will write for a variety of purposes, with a focus on argumentative writing in their Junior year.

### **ELA 12 College Prep (CP)**

Grade Level:	12
Prerequisite:	11 <sup>th</sup> grade English required, recommended score of “C” or better
MAP Score (Reading):	230+
Writing focus:	Synthesis/Rhetorical Analysis

By the end of grade 12, students will read and comprehend literature, including stories, dramas, and poems, at the high end of the grade 12 CCR text complexity band independently and proficiently. This includes analysing interpretations of a story, drama, or poem (e.g., recorded or live production of a play or recorded novel or poetry), and evaluating how each version interprets the source text.<sup>3</sup> Complexity for this course can be measured by the following texts: Heaney’s translation of “Beowulf”(1000), “Dulce et Decorum Est” by Wilfred Owen (1920), *The Canterbury Tale* by Geoffrey Chaucer(1387), “Macbeth” by William Shakespeare (1606), and *Gulliver’s Travels* by Jonathan Swift (1726). Students are expected to read outside of class to complete novels and short stories outlined in the individual instructor’s syllabus, which will be revised from time to time. In addition to reading foundation works of British and world literature, students will write for a variety of purposes, with a focus on synthesis of information in their Senior year.

### **□ Elective Courses**

#### **Advanced Placement (AP) English Language & Composition**

Grade Level:	11/12
Prerequisite:	10/11 <sup>th</sup> grade English with a grade of “A” both semesters. An <u>Entry Exam</u> is required with a grade of “B”.

**\*\*\*Grades below “B” don’t qualify for this course and won’t be offered any entry**

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<sup>2</sup> Aligned to Common Core CCR Standards for Reading, including complexity bands for fiction and non-fiction selections. <http://www.corestandards.org/ELA-Literacy>

<sup>3</sup> Aligned to Common Core College and Career Readiness Standards.  
<http://www.corestandards.org/ELA-Literacy/RL/11-12/>

**exam.\*\*\***

MAP Score (Reading): 230+

Writing focus: Preparation for the AP writing exam

This rigorous course is designed to parallel a first year college composition and critical thinking class. With a score of three or above on the AP exam, it is possible to waive the undergraduate university English/ Composition course and/or receive units. The purpose of this course is to help students focus on “rhetorical analysis of nonfiction texts and the development and revision of well-reasoned, evidence-centred analytic and argumentative writing.” (College Board, AP English Course Description, 2014, p. 7). The course is organized according to the requirements and guidelines of the current AP English Course Description, and, therefore, students are expected to read critically, think analytically, and communicate clearly both in writing and speech. There are abundant reading and writing requirements that must be met outside of classroom hours. Be prepared for a college-level classroom experience and work load. Syllabus available upon request.

**Creative Writing**

Grade Level: 10-12

Prerequisite: 75% C or better in ELA 9

MAP Score (Reading): 230+

Course Description: This course is designed to help students develop their creative writing skills in two of the most popular genres: fiction and poetry. Students will learn to write short stories and poems, how to develop characters, how to create vivid settings, and how to use language effectively. The course will also cover the basics of literary analysis, including how to read like a writer and how to critique other people's work. We will also have a variety of activities to promote critical thinking skills and creativity.

## Mathematics

Pathway	Normal Path			Intermediate Path		Advanced Path	
Grade 12	Pre calculus or AP Precal	Statistics	AP Statistics	AP Calculus AB	AP Statistics	AP Calculus BC	AP-Statistics
Grade 11	Algebra 2	Intro to Statistics	Statistics	Pre calculus or AP Precal	Statistics	AP Calculus AB	Statistics
Grade 10	Geometry			Geometry + Algebra 2		Geometry + (Precalculus or AP Precal)	
Grade 9	Algebra 1			Algebra 1		Algebra 2	
Grade 8	Pre-Algebra			Pre-Algebra		Algebra 1	

### Guide for Students

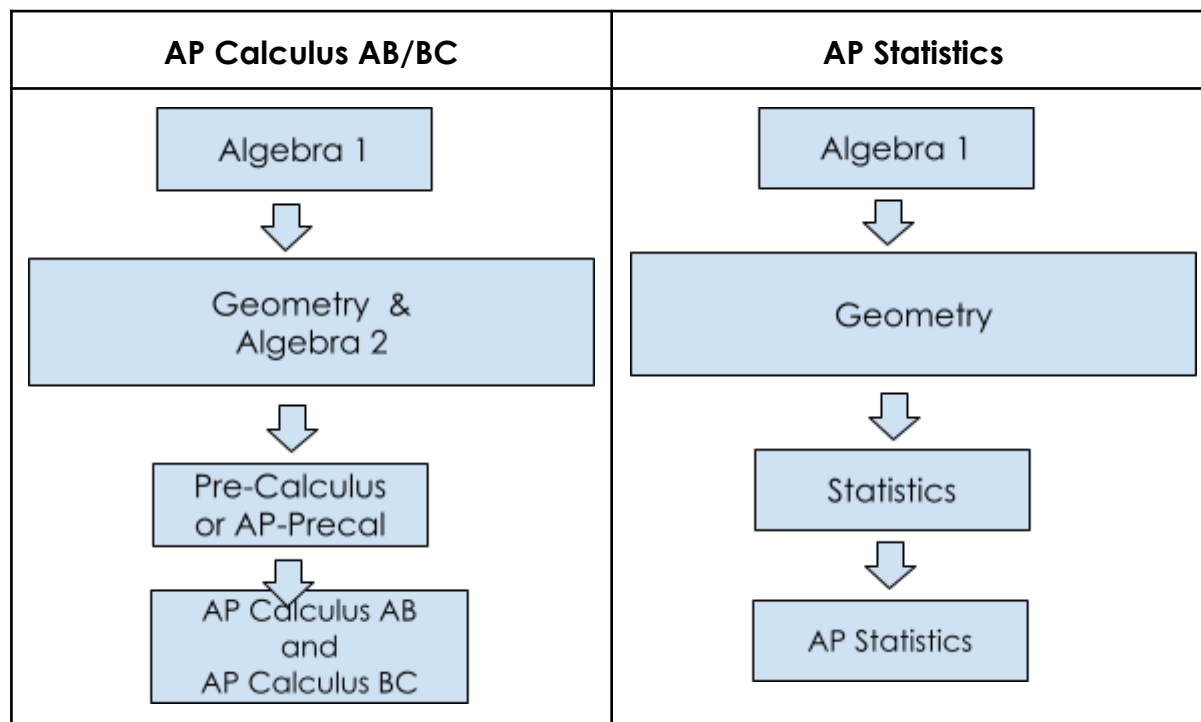
The mathematics department at NIS offers foundational courses in high school algebra and geometry as well as advanced classes in pre-calculus, calculus, and statistics. Four Advanced Placement (AP) classes are offered: AP Precalculus, AP Calculus AB, AP Calculus BC, and AP Statistics.

In order to graduate, high school students must obtain six credits of high-school mathematics: Algebra 1 (two semesters) and Geometry (two semesters), in addition to another mathematics elective (Algebra 2 or Statistics).

Advanced mathematics classes at NIS are differentiated into two fundamental subject areas: Calculus and Statistics after Geometry. Students considering college study in mathematics, engineering, natural science, or economics would benefit most from pursuing the Calculus sequence of Algebra 2 and Pre-Calculus followed by AP Calculus AB and BC. On the other hand, students considering college study in social sciences (psychology, sociology, history, linguistics, etc.) or liberal arts would benefit most from taking Statistics and AP Statistics. This does not suggest that students must choose between these subject areas as many of our students successfully take both sequences simultaneously. Introductory classes in Calculus and Statistics are required credits for many undergraduate degrees and early exposure to these subjects in High School builds an excellent foundation for future study.

## **AP Course Sequences**

Students interested in taking AP Calculus AB/BC or AP Statistics should adhere to the following course sequences:



### **SAT I - General Test**

For the mathematics portion of the SAT, the College Board seeks to assess the extent to which students have fluency with, understanding of, and the ability to apply the mathematical concepts, skills, and practices that are most strongly prerequisite and central to their ability to progress through a range of college courses, career training, and career opportunities.

While most of the mathematics content found on the SAT general test is covered by the end of Algebra 2, in order to achieve a thorough familiarity and skill with the material, students are encouraged to take Pre-Calculus and Statistics.

### **SAT II - Subject Tests: Mathematics Level 1 and Level 2**

Algebra 1, Geometry, and Algebra 2 are considered adequate preparation for taking the SAT Mathematics Level 1 test.

For the SAT Mathematics Level 2 test, students should take at least Pre-Calculus in addition to Geometry, Algebra 1, and Algebra 2

# High School Mathematics Course Descriptions

## Required Courses

### □ Algebra 1

#### **Algebra 1 (Average)**

Grade Level: 9  
Prerequisite: Pre-Algebra

Through the investigation of meaningful problems individually or in cooperative groups, while using appropriate technology, students will strengthen their foundations of mathematics. Students will prepare for success in future mathematics courses by building content knowledge to meet standards in numbers and operations, algebra, geometry, measurement, data analysis, and probability. The processes of problem-solving, reasoning, communication, connections, and representation are interwoven throughout the content standards.

#### **Algebra 1 (Intermediate)**

Grade Level: 9  
Prerequisite: Pre-Algebra

Algebra 1 CP is intended to build a foundation for all higher math classes. This course will review algebraic expressions, integers, and mathematical properties that will lead to working with variables and linear equations. There will be an in-depth study of graphing, polynomials, quadratic equations, data analysis, and systems of equations through direct class instruction, group work, homework, student projects, and technology.

#### **Algebra 1 (Advanced) = Algebra 2**

Grade Level: 9  
Prerequisite: Algebra 1  
MAP Score (Mathematics): 230+

The Algebra I advanced course is designed to provide highly motivated students, who have had some previous algebra experience, at an accelerated pace in a cooperative learning environment. The course aims to develop the student's critical thinking and algebraic problem-solving skills and it will enable students to pursue further mathematical courses in the honors stream. In terms of content, the honors course covers the same topics as the college prep stream, at a greater depth to better prepare students to follow the higher level mathematics courses.

## □ Geometry

### **Geometry**

*Grade Level:* 10  
*Prerequisite:* Algebra 1

The Geometry course aims to equip the students with the basic concepts of geometry through a hands-on, investigative approach. Throughout the course, the students' spatial reasoning and problem-solving skills applied to geometric principles will be developed. The course content is aligned with the Common Core State Standards for mathematics and the problem-solving skill set developed will assist with the student's future education, and career, and has many real-life applications.

## □ Elective Courses

### **Algebra 2**

*Grade Level:* 10  
*Prerequisite:* Algebra 1  
*MAP Score:* 230+

Algebra 2 builds on the material from Algebra 1 to provide students with a thorough course in high school algebra including real and complex numbers, reasoning with expressions and equations, elements of analytic geometry, and general abstract and operational thinking. Students are expected to be self-motivated and eager to attempt challenging problems.

### **Pre-Calculus**

*Grade Level:* 10/11/12  
*Prerequisite:* Algebra 2. At least a "C" in Algebra 2  
*MAP Score:* 240+

Pre-calculus is the conceptual bridge between algebra geometry and calculus. The core theme of Pre-Calculus is the concept of a function. Students will learn abstract properties of functions and will gain a detailed understanding of the so-called elementary functions: polynomials, rational functions, exponentials and logarithms, and trigonometric and hyperbolic functions. This course is required for both AP Calculus AB and AP Calculus BC.

## **Calculus**

*Grade Level:* 11 & 12

*Prerequisite:* Pre-Calculus (must have achieved grade B or higher)

This course is designed for students who want to learn Calculus but at a slower, more comfortable pace. It is not an AP course and does not require students to take the AP exam. Instead, this class focuses on understanding the key ideas of Calculus, including limits, derivatives, and integrals, with plenty of practice and real-life examples.

Students will build a strong foundation in how and why Calculus works without the pressure of an advanced placement exam. This course is perfect for those who want to prepare for college math or simply explore the subject in a supportive and relaxed environment.

By the end of the course, students will have a solid grasp of basic Calculus concepts and how they apply to different fields like science, economics, and engineering.

## **Introduction to Statistics**

*Grade Level:* 11/12

*Prerequisite:* Algebra 1 and Geometry,

This course serves as an entry point into the fundamental principles and techniques of statistics. Students will explore key concepts such as data analysis, probability, and inference, gaining the skills necessary to interpret and draw meaningful conclusions from numerical data. Topics covered include descriptive statistics (measures of central tendency and dispersion), probability distributions, hypothesis testing, correlation, and regression analysis. Emphasis will be placed on both theoretical understanding and practical application, with opportunities for hands-on experience using statistical software to analyze real-world datasets. By the end of the course, students will have developed a solid foundation in statistical reasoning and be equipped to apply statistical methods to a variety of disciplines and contexts.

## **Statistics**

*Grade Level:* 11/12

*Prerequisite:* Algebra 1 and Geometry, both at least a 'B'.  
*The determination of exceptional cases is contingent upon the judgment and discretion of the teacher on a case-by-case basis.*

*MAP Score:* 240+

Statistics is the science of collecting, analyzing, and drawing conclusions from data. Students will explore patterns in data, understand the principles of sampling and

experimentation, use probability and simulation to anticipate patterns, and make statistical inferences. This course is required for AP Statistics.

## AP Courses

### **AP Calculus AB**

*Grade Level:* 11/12  
*Prerequisite:* Pre-Calculus or AP Pre-Calculus with at least a 'B' grade.  
*MAP Score:* 250+

AP Calculus AB is designed to help students develop a conceptual understanding of college-level calculus content, as well as proficiency in the skills and practices needed for mathematical reasoning and problem-solving. After completing the course, students should be able to apply critical thinking, reasoning, and problem-solving skills in a variety of contexts; use calculus terminology and notations appropriately; and communicate their findings using mathematical evidence and justifications.

### **AP Calculus BC**

*Grade Level:* 11/12  
*Prerequisite:* AP-Calculus AB with at least a 'B' grade.  
*Entry test is required for Students who skip AP Calculus AB.*  
*MAP Score:* 260+

*AP Calculus BC is designed to explore the concepts, methods, and applications of differential and integral calculus, including topics such as parametric, polar, and vector functions, and series. You'll perform experiments and investigations and solve problems by applying your knowledge and skills.*

### **AP Statistics**

*Grade Level:* 12  
*Prerequisite:* Statistics with at least a 'B' grade and a 'B' in a pre-test.  
*The determination of exceptional cases is contingent upon the judgment and discretion of the teacher on a case-by-case basis.*  
*MAP Score:* 240+

Statistics is the science of collecting, analysing, and drawing conclusions from data. Students are exposed to four broad conceptual themes:

1. Exploring Data: Describing patterns and departures from patterns
2. Sampling and Experimentation: Planning and conducting a study
3. Anticipating Patterns: Exploring random phenomena using probability and simulation

4. Statistical Inference: Estimating population parameters and testing hypotheses. Students who successfully complete the course and exam may receive credit, advanced placement, or both for a one-semester introductory college statistics course

## Sciences

Pathways	G9	G10	G11	G12
Physics	Physical Science 1	Physics 1	AP Physics1/AP Physics 2	
Chemistry	Physical Science	Chemistry	AP Chemistry	
Biology		Biology	Advanced Biology	AP Biology

### **Physical Science 1**

Grade: 9  
Prerequisites: None

Physical science is the study of matter and energy. Physical science is a mandatory course and provides students with the foundations of both chemistry and physics. Physical Science 1 specifically covers the topics of elements and matter, forces and motion, energy and chemical reactions. The course provides students with the conceptual understanding of theoretical aspects of the above mentioned topics and introduces the notion of scientific inquiry as a method for investigating unknown phenomena in order to acquire new knowledge.

### **Physics 1 College Prep (CP)**

Grade Level: 10/11/12  
Prerequisite: Minimum grade of "B" in Geometry

Physics is considered the fundamental science, a study of the laws of nature – energy, matter, and their interrelationships – and dealing with objects from the smallest subatomic particles to the very largest in the universe. In this course, a conceptual oriented approach will be utilized for better understanding of general laws of physics, and special emphasis is placed on applications and using practical examples from everyday experience. Relevant mathematics leading to the

establishment of these laws is introduced to assist with developing analytical skills of students.

### **AP Physics 1**

*Grade Level:* 11/12

*Prerequisite:* *Physics with a minimum grade of "B"*

AP Physics 1 is an algebra-based college level physics course. A challenging course, it meets the requirements of the College Board AP Physics 1 curriculum. The course content covers a first year college level physics class and successful students can receive a semester of college credit. Lab experiments designed to facilitate student understanding of concepts and principles are important components of the course (25% in terms of class time and final grade). Students will be required to develop their own lab experiments to test a hypothesis, measure certain properties, or prove a principle. Lab skills are directly tested on the AP Physics 1 exam and the lab experiments will provide valuable experience in real-world scientific investigations.

### **AP Physics 2**

*Grade Level:* 12

*Prerequisite:* *AP Physics-1 with a minimum grade of "B"*

AP Physics 2 is an algebra-based, introductory college-level physics course designed to build upon the foundation established in AP Physics 1. It emphasises a deeper understanding of core physics principles through classroom instruction, in-class activities, and hands-on laboratory work. The course delves into electricity and magnetism, thermodynamics, fluids, optics, and modern physics. Students who successfully complete AP Physics 2 are prepared to take the AP Physics 2 exam and potentially earn college credit or advanced placement in college-level physics courses. Laboratory reports and presentations will contribute to the overall grade. Laboratory Work (20-25% of Coursework)

### **Chemistry**

*Grade:* 11

*Prerequisites:* *Physical science 1 (C grade or above)*

Chemistry is the science of change. It begins with an understanding of matter's composition, particularly focusing on atoms and their electrons. Chemistry often centers on the electrons in the outermost shells, as these are crucial for chemical bonding and reactions. By understanding how these electrons are arranged and their propensity for rearrangement, along with fundamental interactions of matter, one can build a robust framework to grasp and predict the processes of chemical change..

## **AP Chemistry**

Grade: 12

Prerequisites: Chemistry (B grade or above)

The goal of AP Chemistry is to provide the student a foundation of knowledge on which to rationalize, summarize and predict the structure and properties of materials that make up chemistry. This class is designed to be the equivalent of the general chemistry course usually taken during the first year of college. This course is divided into 5 main topics covering all aspects of the AP Exam, namely the structure of Matter, chemical bonding, the states of matter, physical chemistry and chemical reactions.

## **Biology**

Grade: 10

Prerequisite: None

This course introduces the principles and concepts of biology. Emphasis is on basic biological chemistry, cell structure and function, metabolism and energy transformation, genetics, evolution, classification, and other related topics. Upon completion, students should be able to demonstrate understanding of life at the molecular and cellular levels. Laboratory exercises reinforce lecture topics and include microscope techniques.

## **Advanced Biology (Pre-AP Biology)**

Grade: 11

Prerequisite: Biology (Biology grade 10 with B+ GRADE or above)

This course is a continuation of Biology and the preparation of AP Biology. Emphasis is placed on organisms, biodiversity, plant and animal systems, ecology, and other related topics. Upon completion, students should be able to demonstrate comprehension of life at the organismal and ecological levels. Laboratory exercises include microscope observations and dissections to reinforce topics discussed in lecture.

*Note: Only sections CP1 and CP2 are eligible to take Advanced Biology. CP3 and CP4 are not eligible to take Advanced Biology as they study the modified biology curriculum, which is different and less rigorous than the regular Biology curriculum.*

## **AP Biology**

Grade: 12

Prerequisite: Advanced Biology  
(B+ grade or above and a mandatory assessment test)

This laboratory-based course focuses on the process of scientific investigation through the study of living things and the world in which we live. AP biology is a college level introductory biology course usually taken by biology majors during their first year. Students who pass the class and AP exam with satisfactory marks are permitted to take upper level biology classes or classes for which advanced biology is a prerequisite.

## **Social Sciences**

### **Modern History College Prep (CP)**

*Grade Level:* 9

*Prerequisite:* *Recommended: 8th Grade History with a grade of B or C for both semesters*

*MAP Score (Reading):* 210 – 220

This course will cover historical events, figures, themes, and movements between from the 15th century to the late 19th century. Lessons are designed to help students refine their higher level critical thinking skills as they study historical sources. Students will be required to do outside research and present their findings for the class. Students will develop skills to articulate central ideas or information from primary and secondary sources. Reading and writing homework is assigned on a daily basis, and individual presentations and group projects are required each semester.

### **Modern History Honors (H)**

*Grade Level:* 9

*Prerequisite:* *Recommended: 8th Grade History with a grade of A or B for both semesters*

*MAP Score (Reading):* 220+

This course will cover historical events, figures, themes, and movements between from the 15th century to the late 19th century. Lessons are designed to help students refine their higher level critical thinking skills as they study historical sources. Students will be required to do outside research and present their findings for the class. Students will develop skills to articulate central ideas or information from primary and secondary sources. Reading and writing homework is assigned on a daily basis, and individual presentations and group projects are required each semester.

### **Contemporary History College Prep (CP)**

*Grade Level:* 10

*Prerequisite:* *Recommended: 9th Grade History with a grade of B or C both semesters*

*MAP Score (Reading):* 220 – 230

This course will cover historical events, figures, themes, and movements from the 20th and 21st centuries. Lessons are designed to help students refine their higher level critical thinking skills as they study historical sources. Students will be required to do outside research and present their findings for the class. Students will develop skills to articulate central ideas or information from primary and secondary sources. Reading and writing homework is assigned on a daily basis, and individual presentations and group projects are required each semester.

### **Contemporary History Honors (H)**

*Grade Level:* 10

*Prerequisite:* *Recommended: 9th Grade History with a grade of A or B both semesters.*

*MAP Score (Reading):* 230+

This course will cover historical events, figures, themes, and movements from the 20th and 21st centuries. Lessons are designed to help students refine their higher level critical thinking skills as they study historical sources. Students will be required to do outside research and present their findings for the class. Students will develop skills to articulate central ideas or information from primary and secondary sources. Reading and writing homework is assigned on a daily basis, and individual presentations and group projects are required each semester.

### **Advanced Placement (AP) World History (Not Offered in 2025/26)**

*Grade Level:* 11/12

*Prerequisites:* *Modern and Contemporary History, GPA 3.25+*

*MAP Score (Reading):* 230+

Advanced Placement World History is designed to be the equivalent of a two semester introductory college or university world history course. In AP World History students investigate significant events, individuals, developments, and processes in four historical periods from approximately 1200 C.E. to the present. Students develop and use the same skills, practices, and methods employed by historians: analysing primary and secondary sources; developing historical arguments; making historical comparisons; and utilizing reasoning about contextualization, causation, and continuity and change over time. This course is designed to prepare students for the AP World History Exam. Students will be required to write, on average, one essay every other week.

### **Advanced Placement (AP) Comparative Government & Politics (Not Offered in 2025/26)**

*Grade Level:* 11/12

*Prerequisites:* *Modern and Contemporary History GPA 3.25+*

*MAP Score (Reading):* 230+

The AP Comparative Government and Politics course reflects what comparative political science teachers, professors, and researchers agree that a college-level comparative government and politics course should teach students to do: define and describe major political concepts, analyze patterns of political processes and behavior and their consequences, and compare and contrast political institutions and processes across countries. Students will show mastery of these skills on the AP Exam through various means, including applying concepts, analyzing data, comparing countries, and writing political science arguments. Students study six countries in AP Comparative Government and Politics: China, Iran, Mexico, Nigeria, Russia, and the United Kingdom.

### **AP African American Studies**

*Grade Level:* 11, 12

*Prerequisites:* *Contemporary World History or equivalent.*

*MAP Score (Reading):* 230+

AP African American Studies provides an interdisciplinary study of African American history, culture, and contributions, from early African civilizations to modern times. The course covers key periods like the slave trade, Civil War, Reconstruction, and Civil Rights Movement, alongside contemporary issues. Students engage with diverse sources, develop analytical skills, and complete a research project, preparing them for the AP exam and fostering critical understanding.

### **Public Speaking & Communication Skills**

*Grade Level:* 10, 11, 12

*Prerequisites:* *Modern World History and G9 ELA*

*MAP Score (Reading):* 230+

Public Speaking and Communication Skills empowers students to become confident and persuasive speakers. The course covers key speech types, presentation skills, and argumentation through debates, recitals, and practical exercises. Students will develop clarity, poise, and critical thinking, preparing them for future academic, professional, and personal communication.

## **Media Studies & Multimedia Production**

Grade Level: 11, 12  
Prerequisites: Contemporary World History and G10 ELA  
MAP Score (Reading): 230+

Media Studies and Multimedia Production offers hands-on experience in creating diverse media content, with a focus on producing the school magazine, videos, and social media. Students develop skills in journalism, design, digital literacy, and ethical media practices through collaborative projects and real-world simulations, building a portfolio of published work.

## **Business & Economics (Social Sciences)**

### **Marketing / Entrepreneurship**

Grade Level: 11  
Prerequisite: None  
Requirements: Personal Laptop

Marketing and Entrepreneurship are two courses melded together to create a comprehensive introduction to creating an innovative and successful business. The principles of marketing, and the process of innovation to provide value to customers have created some of the most successful companies in the world. We will learn from them and develop an understanding to see the business world with a fresh perspective.

This course is university level modified for high school. The content is up to date and reflects the latest trends in marketing and innovation. It is a challenging course, however all students will succeed by using class time efficiently and participating fully.

### **Finance & Investment**

Grade Level: 12  
Prerequisite: None  
Requirements: Personal Laptop

This course is designed to prepare students for financial security in their future. In the first semester we learn how to manage earnings, debt, savings and investments. With a good understanding of money and its purposes, we focus on investment in the second semester. With the tools and understanding from this course, students will be well equipped to manage their finances, avoid pitfalls and sleep well at night.

## **Economics**

<i>Grade Level:</i>	<i>11 &amp; 12</i>
<i>Prerequisite:</i>	<i>None</i>
<i>Requirements:</i>	<i>Personal Laptop</i>

The goals of the economics course are to introduce the principles essential for understanding today's global economy. It is a survey course of the various sectors of economics and the tools for analysis. Economics is good for all students to have the essentials in understanding our world and be equipped for decision making. Better economic thinking can make a better world, one small step at a time.

## **Advanced Placement Macroeconomics**

<i>Grade Level:</i>	<i>12</i>
<i>Prerequisite:</i>	<i>Algebra 1 &amp; 2, GPA of at least 3.3</i>
<i>Requirements:</i>	<i>Personal Laptop</i>

AP Macroeconomics is a challenging first year university course that examines the economic system as a whole for countries and the global economy. Students use principles and models to describe economic situations and predict and explain outcomes with graphs, charts, and data. Concepts explored include economic measurements, markets, macroeconomic models and macroeconomic policies. All students may sit the AP Macroeconomics exam.

## **Advanced Placement Microeconomics**

<i>Grade Level:</i>	<i>12</i>
<i>Prerequisite:</i>	<i>Algebra 1 &amp; 2, GPA of at least 3.3</i>
<i>Requirements:</i>	<i>Personal Laptop</i>

AP Microeconomics is a challenging first year university course. The focus is on how markets work, how prices are determined and government intervention into the market. Students use principles and models to describe economic situations and predict and explain outcomes with graphs, charts, and data as they explore concepts like scarcity and markets; costs, benefits, and marginal analysis; production choices and behavior; and market inefficiency and public policy. All students may sit the AP Microeconomics exam.

## **Psychology (Social Sciences)**

### **Psychology Honors (H)**

<i>Grade level:</i>	10/11/12
<i>Prerequisites:</i>	MAP Score (Reading) 230+
<i>Course Length:</i>	Yearlong course

This course will provide students with an introductory level of understanding regarding the following topics: brief history of psychology, research methods, life span development, biological aspects (such as brain, nervous system, sense and perception), different schools of psychology (psychoanalytic, behavioristic, humanistic), memory, personality, and psychological disorders. This course will explore the terminology and concepts of this discipline and provide a better understanding of self and others. This course will use a combination of lectures, group work, video clips, and games in order to get a better understanding of what psychology is. Through textbook readings, projects, and directed activities that emphasize critical thinking and applications, students explore psychology as the science of behavior and of mental processes.

### **Advanced Placement (AP) Psychology**

<i>Grade level:</i>	11/12
<i>Prerequisites:</i>	Completion and qualification of grades <b>85% B or better</b> of high school Psychology/Honors Psychology/ MAP Score <b>(Reading) 230+</b> and while not required it is <b>highly recommended</b> that students have a strong understanding in Statistics and Biology.

<i>Course Length:</i>	Yearlong course
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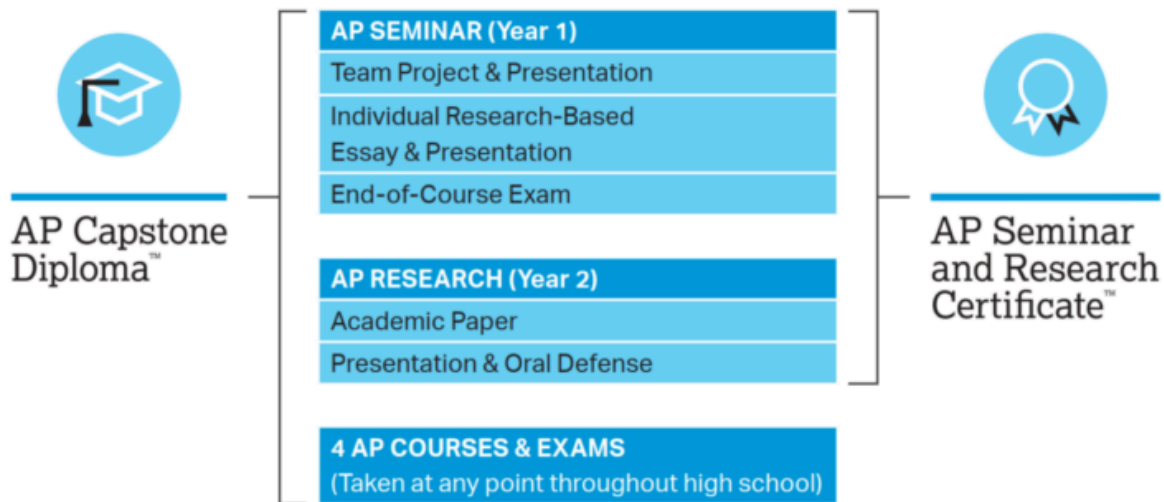
This year-long Advanced Placement Psychology course will prepare students to take the AP Psychology exam in May. This is a college level exam in which 75 multiple-choice questions and two Free Response Questions (FRQs) will determine the students' content knowledge of Psychology. The AP Psychology course introduces students to the systematic and scientific study of human behavior and mental processes. While considering the studies that have shaped the field, students explore and apply psychological theories, key concepts, and phenomena associated with major units of study, including biological bases of behavior, cognition, development, learning, social psychology, personality, and mental and physical health. Throughout the course, students apply psychological concepts and employ psychological research methods and data interpretation to evaluate claims, consider evidence, and effectively communicate ideas. Through textbook/ scholarly article readings, projects, and AP exam preparation that emphasizes critical thinking and applications, students explore psychology as the science of behavior and of

mental processes. This course has been reviewed and approved by the College Board to use the "AP" designation.

**Please note that:** *Some colleges may or not accept the AP credit as a college credit. With the new changes and alignment with American Psychological Association (APA) recommendations for Introductory Psychology college courses, this course may be accepted as a college **science or social science credit.***

**More information:** This practice has long been a feature of other AP science courses, and aspects of argumentation enables students to demonstrate the ability to propose defensible claims about behavior and mental processes and use scientifically derived evidence to support or refute those claims.

## AP Capstone Diploma (Social Sciences)



The **AP Capstone Diploma** program is composed of:

1. **AP Seminar:** AP Seminar provides sustained practice of investigating issues from multiple perspectives and cultivates student writing abilities so they can craft, communicate, and defend evidence-based arguments. Students are empowered to collect and analyze information with accuracy and precision and are assessed through a team project and presentation, an individual written essay and presentation, and a written exam.
2. **AP Research:** In AP Research, students develop the skills and discipline necessary to conduct independent research to produce and defend a scholarly academic thesis. This second course in the AP Capstone experience allows students to explore deeply an academic topic, problem, or issue of individual interest and through this inquiry, students design, plan, and conduct a year-long mentored, research-based investigation. The course culminates in an academic thesis paper of approximately 5,000 words and a presentation, performance, or exhibition with an oral defence.
3. Four or more AP courses and exams of the student's own choosing.

### **AP Seminar**

Grade Level: 11/12

Prerequisite: Passing grades in all ELA courses and interview with AP Seminar teacher

MAP Score (Reading): 220+

Students investigate real-world issues from multiple perspectives, gathering and analyzing information from various sources in order to develop credible and valid evidence-based arguments. AP Seminar is a yearlong course. Students are assessed with two through-course performance tasks and one end-of-course exam. All three assessments are summative and used to calculate a final AP score (using the 1-5 scale) for AP Seminar. These performance tasks include a written research report, a team presentation, a written argument essay, and an individual presentation.

### **AP Research**

Grade Level: 12

Prerequisite: AP Seminar

*Students must meet all **three** requirements to be considered for this course. If a student has registered and later receives a score below a three on the AP exam, they must withdraw from AP Research per College Board guidelines.*

*-80 % or better in AP Seminar*

*-A recommendation from your AP Seminar teacher.*

*- AP Seminar exam score of 3 or better (requirement stated by College Board)*

Students entering the course are already expected to have strong research skills and be able to work efficiently throughout their independent research project. While lectures and activities are meant to enhance their skills and help them grow, the student is accountable for meeting performance tasks and deadlines throughout the year.

There is no end-of-course exam for AP Research. However, every student will be expected to submit their primary research to the College Board and meet deadlines set by the College Board. Students are assessed with one through-course performance task consisting of two distinct components:

1. Paper (4,000-5,000 words).
2. Oral defense (15-20 minutes).

Note: Both components will be included in the calculation of a final AP score (using the 1-5 scale).

## **Fine Arts**

### **□ Music**

#### **Grade 9 Band**

*Grade Level Requirement: Students must have completed grade 8 music in the previous academic year.*

Instrumental band is designed for musicians at various levels of ability who desire to perform appropriate band literature. Emphasis is placed on interpretations of style, phrasing, articulation, and dynamics with concentration on technique and music theory. Performances are required. Students may be required to rent a musical instrument from the school or purchase their own.

#### **Senior Band**

*Grade Level: 10 -12*

*Grade Level Requirement: Students must have completed grade 9 music in the previous academic year.*

*Prior Band Experience: Priority will be given to students who have completed the Senior Band Class or an equivalent level of band class in the 2023/24 academic year with a grade of no less than C.*

*Audition Requirement for New Students: Students who did not participate in band class in the previous academic year must submit an audition video recording showcasing their instrumental skills. Additionally, they may be required to attend a live audition, if deemed necessary by the teacher.*

*Space Limitation: Due to space constraints, enrollment in the Senior Band Class is limited to 50 students. Priority will be given to eligible students based on the criteria mentioned above.*

*Deadline for Audition Submission: All audition materials must be submitted by the specified deadline, as announced by the school or band director.*

*Students are encouraged to adhere to these requirements and deadlines to secure their placement in the Senior Band Class for the 2024/25 academic year.*

This course is open to those students who already possess a higher level of skill. Focus is on improving technical proficiency, musicianship and sight-reading skills. Additionally, students are expected to have a high level of interpretative skills in style, phrasing, articulation, and dynamics. Regular performance assessments take place over the span of the semester.

## □ Art

### **Grade 9 Art**

*Prerequisite:* Completion of Grade 8 Art

This course is open to teach students composition through the elements (line, colour, shape/form, texture, and value) and principles of design. (Balance/emphasis/contrast, repetition, proportion/scale). To explain new concepts and the uses of tools and materials. Techniques and processes used in sculpture: clay, papier-mâché, collage, fibres, found objects etc. To improve basic artistic skills: Observational drawing techniques (figure, portrait, still-life, landscape, perspective etc.) Painting techniques (watercolour, acrylic, pastel etc.) To build self-confidence by showing students they are unique and that their ideas have merit. To introduce students to art history and appreciation. To offer open-ended projects that are personal interpretations.

### **High School Art**

*Grade Level:* 10-12

*Prerequisite:* Completion of Grade 9 Art

This course is a continuation of grade 9 ART in regards to drawing and painting; allowing students the fullest opportunity to explore the range of possibilities in art. This course stresses the development of craftsmanship and strategies for personal exploration. Principles of colour, form and pictorial space and their relationship to materials and techniques will be basic to all class projects.

### **Design and Engineering**

*Grade Level:* 10-12

*Prerequisites:* None

This introductory course in Design guides students through the creative process, from conceptualization to prototyping and reflection. Students will explore design thinking, digital and physical prototyping techniques, and problem-solving strategies while developing essential skills in iteration and user-centered design. Collaboration is a key component, as students work together to develop, test, and refine their ideas. Throughout the course, students will embody the school-wide learner outcomes by practicing empathy in design, thinking critically about solutions, collaborating effectively, and growing as confident learners who embrace challenges and feedback.

Please note that students who enrol in this course will require a **laptop** that has the following minimum requirements:

- 1.) **Processor:** 64-bit processor

- 2.) **RAM:** 8 GB is recommended, but ideally 16 GB
- 3.) **Graphics Card:** A dedicated graphics card with at least 1 GB of VRAM is recommended.
- 4.) **Display:** A display resolution of 1920 x 1080 or higher is suggested.
- 5.) **Operating System:** Windows 10/11 (64-bit) or macOS with Rosetta 2 support.
- 6.) **Internet Browser:** Google Chrome, Mozilla Firefox, Safari (Mac OS only, Opera, or Microsoft Edge.

### **AP Art & Design in Drawing or 2D Design**

*Grade Level:* 11-12

*Prerequisite:* Completion of High School Art with a grade of "B" or above

Sustained Investigation: 15 digital images and responses to prompts.

-Works demonstrate sustained investigation through practice, experimentation, and revision. (60% of total score)

-Selected Artworks: 5 physical works each demonstrate synthesis of materials, processes, and ideas. (40 % of total score)

-AP Art & Design Exams in May

## **Thai Language**

### **Thai as an Additional Language -1**

*Grade Level:* 9-12  
*Prerequisite:* None

This is the first course for the students who have never learned Thai, students will acquire four skills, particularly listening and speaking. They will learn vocabulary, simple sentence structures in Thai, easy ways of asking and answering questions, pronunciation, and conversation. Additionally, students will learn Thai crafts, cooking, and cultures, such as Loy Krathong and Songkran.

### **Thai as an Additional Language -2**

*Grade Level:* 10-12  
*Prerequisite:* Thai as an Additional Language -1

This course is divided into two categories: the first focuses on speaking and listening skills, designed to help students gain more confidence in speaking and listening to Thai. Students will learn to communicate using sentences in a variety of conversations based on real-life situations, as well as vocabulary, grammar, phrases, and Thai idioms. The second category focuses on writing and reading skills. Students will start by learning the Thai writing system which consists of consonants, vowels, tones, sentence writing, and reading practice. Additionally, students will learn about Thai culture, crafts, and cooking.

### **Thai as an Additional Language -3**

*Grade Level:* 11-12  
*Prerequisite:* Thai as an Additional Language -2

This course will acquire skills in speaking, reading, writing, and listening, especially to improve students' writing and reading skills, along with summarising stories, articles, folk story dialogues, and news. The students will learn about complex grammatical structures and idioms. In addition, students will learn about Thai culture, cooking, and crafts. Moreover, students will have the opportunity to be MCs and create writing scripts for Thai events to improve their writing and speaking skills.

### **Thai Language and Culture**

*Grade Level:* 9-12  
*Prerequisite:* for native Thai students

This course is for native Thai students and will follow the guidelines of the Thai Ministry of Education. The course focuses on four skills: speaking, reading, writing, and listening. Each lesson will contain topics like Law, History, Geography and Social study that relate to grammar. In addition, this course will teach students about Thai

culture, Thai law, Thai literature, Thai food, and Thai crafts. It will also give students the opportunity to be MCs and create the script for Thai events to improve their speaking skills.

## **World Languages**

### **➤ Japanese**

#### **Japanese 1**

*Grade Level:* 9 & 10

*Prerequisite:* None

Systematic study of Japanese using the four basic skills of listening, speaking, reading and writing. This rigorous course helps students improve to a level sufficient for basic everyday life learning with basic verbs and adjectives. They build solid knowledge as they complete a worksheet in each lesson, challenging homework, frequent writing assignments, and extensive readings. Creating New Year's cards is also required as an annual project.

#### **Japanese 2**

*Grade Level:* 9-11

*Prerequisite:* Japanese 1

This rigorous course helps students improve their vocabulary, reading, writing, listening, speaking Japanese with learning basic Kanji to a level sufficient for everyday life using with Te form of verbs, Nai form of verbs and Dictionary form of verbs. They build the solid knowledge as they complete worksheet in each lesson, challenging homework, frequent writing assignments, and extensive readings. Individual project is required each semester including oral presentations where students are trained in the appropriate use of formal expressions.

#### **Japanese 3**

*Grade Level:* 10-12

*Prerequisite:* Japanese 1 and 2

This rigorous course helps students improve their vocabulary, reading, writing, listening and speaking Japanese including learning Kanji. Enhance the student's capacity to communicate using conversational forms of verbs such as Ta form and Plain style of verbs at advanced level. They build solid knowledge as they complete a worksheet in each lesson, challenging homework, frequent writing assignments, and extensive readings. Individual projects are required each semester including oral presentations where students are trained in the appropriate use of formal expressions in this course.

#### **Japanese 4**

*Grade Level:* 11,12

*Prerequisite:* Japanese 1, Japanese 2 and Japanese 3

This rigorous course helps students improve not only their vocabulary, reading, writing, listening and speaking Japanese including learning Kanji but also increased speed and comprehension in the reading of various textual types, with a special emphasis on the accurate understanding of structurally complex sentences. This course is at the level that students have completed Lesson 50 of the textbook. This course is suitable for those students who are going to take JLPT learning with 17 forms of verb and honorific language. Students are required to practice repeatedly, review, and to acquire knowledge on a daily basis.

## **AP Japanese**

*Grade:* 12/11

*Prerequisites* Japanese 3 with at least A level or the same proficiency of Japanese 3

The AP Japanese Language and Culture course emphasises communication by applying the interpersonal, interpretive, and presentational modes of communication in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness

Throughout the course, students develop interpersonal skills that enable them to request and confirm the receipt of information, ask for and provide directions and issue and respond to invitations. They also develop more cognitively challenging functional language skills, including the ability to compare phenomena, express opinions and preferences, and discuss life experiences. Additionally, students develop a command of a significant number of the most prevalent Kanji characters used in writing.

The exam is 2 hours long and includes 70 multiple-choice questions and 4 free-response questions. The exam assesses themes and skills developed in each of the six units.

### **➤ Spanish**

#### **Spanish 1**

*Grade Level:* 9 & 10

*Prerequisites:* None

An introduction to the Spanish language focusing on basic conversation, present tense verb conjugations and useful vocabulary. The course book that is used (VOCES) is grounded in the AP curriculum requirements to lead the students who pursue Spanish in advanced levels to be able to take the exam if they are willing. Each unit corresponds with a country of study allowing students to dig deeper into

the history, culture, religion, food and dance of Spanish speaking countries around the world. Lessons are taught mainly in Spanish, encouraging the students to start being aware of the target language. Every activity is designed for the students to grow in their language skills.

## **Spanish 2**

*Grade Level:* 10 & 11

*Prerequisites:* Spanish 1 or Equivalent

This course is designed to move beyond introductory Spanish and give students the skills to conjugate verbs in preterit, imperfect and other grammatical structures. The course book that is used (VOCES) is grounded in the AP curriculum requirements to lead the students who pursue Spanish in advanced levels to be able to take the exam if they are willing. Emphasis is given to conversational skills and the use of new verbs in context. Like Spanish 1, each unit in Spanish 2 is accompanied by a Spanish speaking country for further understanding. Lessons are taught 80% in Spanish and students are constantly demanded to use the language as much as possible.

## **Spanish 3**

*Grade Level:* 10-12

*Prerequisites:* Spanish 1 or equivalent and Spanish 2

Spanish 3 course leads the students to keep learning in detail more complex grammatical structures, idioms and expressions, study different social and cultural context about Spanish speaking countries and pushes them to communicate in the target language using different skills. The course book that is used (VOCES) is grounded in the AP curriculum requirements to lead the students who pursue Spanish in advanced levels to be able to take the exam if they are willing. Lessons are taught 80% to 100% in Spanish and students are constantly demanded to use the language as much as possible.

## **Spanish 4**

*Grade Level:* 12

*Prerequisites:* Spanish 1 or equivalent, Spanish 2, and Spanish 3

Spanish 4 is an advanced course that seeks to give the students the opportunity to learn new linguistic and grammatical content but also to go over complex structures they already learned in the past courses. These review units are within new contexts where the vocabulary, idioms and phrases are rooted in more specific fields to walk the students with something they already know to new areas of learning and discussion. In this course the new grammatical and cultural knowledge will take the students to a new level of comprehension and awareness of the language. The course book that is used (VOCES) is grounded in the AP curriculum requirements to lead the students who pursue Spanish in advanced levels to be able to take the

exam if they are willing. Lessons are taught 95% to 100% in Spanish and students are constantly demanded to use the language as much as possible.

## ➤ Chinese

### **Chinese 1**

*Grade Level:* 9 & 10

*Prerequisites:* None

The Chinese 2 course integrates the teaching of listening, speaking, reading, and writing skills to provide a comprehensive Chinese learning experience. Utilize HSK standard books, as well as theme-based courseware and life situation dialogues and stories designed by teachers themselves, to expose students to different language forms and contexts. Conduct basic conversations primarily in Chinese within the classroom to enhance students' language expression and comprehension abilities. Explore Chinese culture, customs, and traditions to deepen students' understanding of the language and its context. Incorporate cultural elements into the curriculum by participating in celebrations of Chinese festivals such as the Spring Festival, Mid-Autumn Festival, and learning about the historical stories behind Chinese customs, integrating cultural elements into the course. At the end of each unit, there will be relevant exercises and activities to reinforce students' mastery of the knowledge. By engaging in systematic and long-term practice, students' practical language skills will be enhanced.

### **Chinese 2**

*Grade Level:* 10 & 11

*Prerequisites:* Chinese 1 or Equivalent

The Chinese 2 course study more advanced sentence structures like compound sentences and subjunctive mood to improve language accuracy and fluency. Introduce a wider range of everyday vocabulary and phrases for various situations, helping students express their thoughts more freely. Enhance listening and speaking skills through exposure to longer and more complex audio materials and diverse oral exercises. Enable students to write short essays of over 10 sentences on given topics. Deepen understanding of Chinese culture, history, society, and customs to better understand the context of the Chinese language. Organize practical activities such as speech contests, role-plays, and cultural exchanges to provide opportunities for real language use and reinforce learning.

### **Chinese 3**

*Grade Level:* 10-12

*Prerequisites:* Chinese 1 or equivalent and Chinese 2

The Chinese 3 course, students learn to use more words and sentences. They also learn about complex sentences, like ones with 'if... then...' for making suggestions or wishes. They learn about changing sentence order, like 'not only... but also...' for more flexible talking. And they learn to compare things using sentences like 'more... than...' to say more about ideas. At this stage, the focus is on practicing the writing of Chinese characters, mastering the strokes of some characters, and being able to read simple books. During this course, students will practice writing short sentences and composing short essays within a limited time frame. They will be given a set of vocabulary words and asked to create a dialogue or short passage using those words. This exercise aims to develop students' ability to improvise and express themselves sharply in Chinese within a short period of time.

### **Chinese 4**

*Grade Level:* 12

*Prerequisite:* Chinese 1, Chinese 2 and Chinese 3

The Chinese 4 course students will learn more advanced words and phrases to build their vocabulary. We'll also introduce harder sentence structures like long sentences and special word orders to help them speak better. We'll focus on listening skills to enhance their understanding of Chinese. They'll practice listening and speaking to communicate more effectively in daily life. We'll provide them with stories and news articles to read, enabling them to gain deeper insights. Additionally, they'll practice writing simple sentences and paragraphs in Chinese.

### **AP Chinese Language and Culture**

*Grade level:* 11-12

*Prerequisite:* Native speakers approaching native proficiency and non-native speakers (Students are typically in their fourth year of high school level study )

The AP Chinese language and culture Course in Mandarin Chinese emphasizes communication(understanding and being understood by others) by applying interpersonal, interpretive, and presentational skill in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The AP Chinese language and culture course strives not to overemphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in Chinese.

The AP Chinese language and culture course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students' awareness and appreciation of culture products (e.g., tools, books, music, law, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions).

The exam is 2 hours long and includes 70 multiple-choice questions and 4 free-response questions. The exam assesses themes and skills developed in each of the six units.

## **Physical Education**

### **Guide for Students**

The Physical Education Department at NIS offers a foundational Grade 9 course in Health & Physical Fitness, as well as specialised courses in Team Sports, Weight Training, and Sports Leadership

In order to graduate, high school students must obtain one credit from the physical education courses offered. Health & Physical Fitness is available in the 9th grade; all students in grade 9 will take this course to satisfy their graduation requirement. Depending on ability, motivation, and future academic goals, students may then pursue physical education electives during their 10th, 11th, and 12th grade years.

### **High-school Physical Education Course Descriptions**

#### **Health & Physical Fitness**

*Grade:* 9  
*Prerequisite:* N/A

This course serves as a mandatory requirement for all 9th grade students at NIS. Health and Physical Fitness is designed to promote overall health and wellness through a variety of physical activities, classroom lessons and discussions, and health-related assignments. Subjects covered in Health and Physical Fitness include social health, mental health, emotional health, physical health, sexual education, environmental health, spiritual health, drugs/alcohol, growth and development, peer pressure, gender, contraception, STI's, interpersonal and intrapersonal relationships, society and health, cardiovascular exercise, muscular endurance and strength training, and flexibility.

#### **Weight Training & Fitness**

*Grade:* 10-12  
*Prerequisite:* Health & Physical Fitness

This course serves as an introduction to weight training and fitness and a prerequisite for ADV Weight Training & Fitness. Weight Training & Fitness 1 is designed to promote overall health and wellness through a variety of aerobic, anaerobic, balance, flexibility, and strength activities and lessons. Subjects covered in Weight Training & Fitness 1 include cardiovascular exercises, powerlifting, bodybuilding, body weight exercises, interval training, yoga, plyometric, and stability training

## **Team Sports**

*Grade:* 10-12

*Prerequisite:* *Health & Physical Fitness*

This course serves as an introduction to team sports and a prerequisite for ADV Team Sports. Team Sports 1 is designed to promote overall health and wellness through a variety of team/group activities, sports, and games. Subjects covered in Team Sports 1 include basketball, football/futsal, American football, baseball/softball, floor hockey, kickball, handball, volleyball, capture the flag, badminton, team building, communication, teamwork, roles and responsibilities, and adaptability.

## **Sports Management**

*Grade:* 11-12

*Prerequisite:* *Health & Physical Fitness & Participation in Varsity Level Sports*

Sports Management is a new course that will be offered next year for Grade 11 and Grade 12. The primary goal of this course is for students to demonstrate their individual and cooperative leadership capabilities, as well as develop skills that will facilitate decision-making for themselves and fellow classmates. Leading through service is the majority of this curriculum. There will also be opportunities to learn the rules of a variety of sports and time for gameplay. Students will have an opportunity to pursue these leadership experiences for all grade levels at NIS and the CMAC community through a variety of tasks that work directly with the athletics department.

## **Computer Sciences**

### **Computer Science & Digital Literacy College Prep (CP)**

Grade Level: 9  
Prerequisite: None

Students have the opportunity to use more specialized technology tools that enhance their learning. These include a wide variety of content-specific tools. In addition, students should have the opportunity to learn how to write code in a commonly used programming language. Students should have developed an appreciation for the capabilities and capacities of technology, as well as an understanding of how these tools can be used for lifelong learning. In addition, students should be knowledgeable about the role technology plays in various fields of work, enabling them to better plan for their careers in the 21st century.

Students should be able to use technology as a tool to research, organize, evaluate and communicate information. To use digital technologies, communication/networking tools and social networks appropriately to access, manage, integrate, evaluate and create information to successfully function in a knowledge economy and apply a fundamental understanding of the ethical/legal issues surrounding the access and use of information technologies.

### **Web Design College Prep (CP)**

Grade Level: 10  
Prerequisite: Grade 9 CS&DL Recommended 10th grade English with a grade of "B/C" in both semesters

In this course, students develop and build web pages using the different web-development tools and frameworks. They will start off by learning about the basic concepts of how the Internet and browsers work and learn the fundamentals of web development. Students then learn the core building blocks of web page design, including HTML and CSS. Students learn how to structure and style pages using HTML and CSS. Students then start to learn a popular programming language called Javascript, to build websites with dynamic content with features that can respond to interactions from viewers. In addition, students also practice valuable programming skills such as debugging, using resources, and teamwork. Finally, they'll find out how to build more complex web projects, from animations to online games. The Web Design & Development curriculum is an introduction to the design, creation, and maintenance of web pages and websites.

## **Python Programming**

*Grade Level:* 11

*Prerequisite:* Recommended 9<sup>th</sup>-grade Computer Science with a grade of "B/C" in both semesters

This course aims to teach students the basics of programming computers using Python. Students learn the basics of how one constructs a program from a series of simple instructions in Python. The course introduces students to the programming basics (what it is and how it works), binary computation, problem-solving methods, and algorithm development. Includes procedural and data abstractions, program design, debugging, testing, and documentation. Covers data types, control structures, functions, parameter passing, library functions, arrays, inheritance, and object-oriented design. Laboratory exercises in Python.

## **Advanced Placement (AP) Computer Science A**

*Grade Level:* 11/12

*Prerequisite:* Recommended 9<sup>th</sup>-grade Computer Science with a grade of "B" in both semesters & to have successfully completed a first-year high school algebra course.

AP Computer Science A introduces students to computer science through programming. Fundamental topics in this course include the design of solutions to problems, the use of data structures to organise large sets of data, the development and implementation of algorithms to process data and discover new information, the analysis of potential solutions, and the ethical and social implications of computer systems. The course emphasises object-oriented programming and design using Java programming language. This course is an introductory college-level computer science course. Students cultivate their understanding of coding through analysing, writing, and testing code as they explore concepts like modularity, variables, and control structures.

## **Advanced Placement (AP) Computer Science Principles (AP CSP)**

*Grade Level:* 11/12

*Prerequisite:* Recommended 9<sup>th</sup>-grade Computer Science with a grade of "B" in both semesters & to have successfully completed a first-year high school algebra course.

AP Computer Science Principles is an introductory college-level course that introduces students to the foundational concepts of computer science, with an emphasis on computational thinking. Students will explore various aspects of computing, including: Computational Thinking Practices, Algorithms and Programming, Data and Information, Impact of Computing, Computers and Networks, By the end of the course, students will be able to: Apply computational thinking practices to solve problems effectively, Design algorithms and develop

programs using a chosen programming language, Analyze data and utilize it for problem-solving, Explain the functioning of computer systems and networks and Evaluate the impact of computing on society and practice responsible computing.

### **AI in Action: Ethics, Innovation & Digital Citizenship**

*Grade Level:* 10 -12

*Prerequisite:* None

In this course students will explore the rapidly evolving world of artificial intelligence through the lens of critical thinking, ethical decision-making, and responsible digital participation. This course empowers students to become informed digital citizens by examining how AI technologies are designed, used, and experienced in real-world contexts.

Grounded in four key learning strands—AI Literacy and Understanding, Ethical Use of AI, Human-Centered AI Thinking, and Practical AI Application Skills—students will:

- Develop a foundational understanding of AI concepts, including machine learning and pattern recognition.
- Analyze real-world examples of AI use across industries, from voice assistants to recommendation systems.
- Investigate ethical concerns related to bias, privacy, and human rights in AI development and deployment.
- Reflect on the importance of human agency in shaping AI systems and outcomes.
- Safely and effectively apply AI tools to creative projects and problem-solving challenges.

By the end of the course, students will not only be able to explain what AI is and how it works but will also be equipped to engage with AI technologies thoughtfully and ethically, demonstrating agency and responsibility in an increasingly AI-driven world.