## **ADVANCED PLACEMENT COURSES**

\*Note: Please reference the 2020-2021 NHS program of studies for full course descriptions.

AP Macroeconomics 11 12  $\checkmark$   $\bowtie$  — AP Macroeconomics is designed for students who want to develop a first-year college level knowledge of the theory and principles of economics that affect the American economy and to prepare for the AP Macroeconomics examination. This course requires students to develop the basic skills and concepts of economic analysis.

**AP Human Geography 11 12**  $\checkmark$   $\bowtie$  — AP Human Geography is designed for students who want to acquire a first-year college level content knowledge of Human Geography and the interactions of humans with their environments, as well as the skills necessary to pass the AP Human Geography examination. This course requires students to focus on the distribution, processes, and effects of human populations on a global scale.

AP Government and Politics 11 12  $\checkmark$   $\Rightarrow$  — AP Government and Politics is designed for students who want to develop the skills necessary to analyze and critique the institutions and processes of contemporary American government and to prepare for the AP Government and Politics examination. This course requires students to acquire college-level knowledge of the theoretical and constitutional foundations of American government, as well as the dynamics of the contemporary political process.

**AP Calculus AB 11 12**  $\checkmark$   $\bowtie$  — AP Calculus AB is designed for students who have demonstrated a superior and thorough knowledge of college preparatory mathematics including algebra, geometry, trigonometry, analytical geometry, and elementary functions. Before studying calculus, students must be familiar with the properties, algebra, graphs, and language of functions. These functions include those that are linear, polynomial, rational, exponential, logarithmic, trigonometric, inverse trigonometric, and piecewise defined.

**AP Calculus BC 12**  $\checkmark$   $\Rightarrow$   $\Rightarrow$   $\Rightarrow$  AP Calculus BC is designed for students who have successfully completed AP Calculus AB and wish to extend the study of calculus beyond the AB course prior to college. Students will review and further develop differentiation and integration techniques utilized in Calculus AB and will explore additional solution techniques. Students will continue with the study of sequences and series, and vector and polar calculus.

**AP Statistics 10 11 12**  $\checkmark$  P — AP Statistics is designed for students who wish to complete studies equivalent to a onesemester, introductory, non-calculus based, college course in statistics. The course aims to introduce students to the major concepts and tools for collecting, analyzing and drawing conclusions from data.

AP English III Language and Composition 11 
P∃ — English III AP Language and Composition is designed for students who want to write about a variety of subjects and demonstrate an awareness of audience and purpose. Additionally, students will learn to identify the dynamics of a writer's purpose, stylistic choices, and employment of generic conventions and resources of language to analyze the overall contribution to effectiveness in writing.

AP English IV Literature and Composition 12 PD — English IV AP Literature and Composition is designed for students who want to write about a variety of subjects and demonstrate an awareness of audience and purpose. Additionally, students will learn to identify the dynamics of a writer's purpose, stylistic choices, and resources of language to analyze the overall contribution to effectiveness in writing.

**AP Computer Science Principles 9 10 11 12** *▶* — This course will introduce students to computer science with fundamental topics that include problem solving, design strategies and methodologies, organization of data, approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing.

**AP Latin 11 12**  $\mathscr{P}$   $\bowtie$  — AP Latin is designed for students who want to prepare for the AP Latin Exam. In doing so, they will gain an appreciation of Vergil's Aeneid as a great epic, and prose readings from Caesar's Gallic War. They will learn to translate literally and to analyze passages critically.

AP Italian Language and Culture11 12 
→ Pa — AP Italian is part of the core curriculum and tied to program models that incorporate effective strategies, assessment procedures and technologies, reflects evolving standards at the national, state and local levels, and develops and enhances basic communication skills and higher order thinking skills.

AP Spanish Language 11 12 𝒴 → AP Spanish is a demanding program that is comparable in both language and literature to a third year college level language course. The course is performance-based and students must demonstrate advanced communication skill.

AP Studio Art 11 12 𝒴 𝔅 — AP Studio Art is designed for students who want a learning experience in drawing equivalent to that of an introductory college studio art course. This College Board program is based on the premise that high achieving secondary school students can successfully develop college-level work. This includes Drawing, 2-D, & 3-D.

**AP Art History 10 11 12**  $\mathscr{P}$  — The AP Art History course explores such topics as the nature of art, its uses, its meanings, art making, and responses to art. Through investigation of diverse artistic traditions of cultures from prehistory to the present, the course fosters in-depth and holistic understanding of the history of art from a global perspective.

**AP Biology 11 12**  $\mathscr{P}$ <sup>[2]</sup> — AP Biology is designed to be the equivalent of a college introductory biology course usually taken by biology majors during their first year of college. Some AP students, as college freshmen, are permitted to undertake upper-level courses in biology or to register for courses for which biology is a prerequisite.

**AP Chemistry 11 12**  $\checkmark$   $\Rightarrow$   $\Rightarrow$  **AP** Chemistry is designed to be the equivalent of the general chemistry course usually taken during the first year of college. For some students, this course enables them to undertake, as college freshmen, second-year work in the chemistry sequence at their institution or to register for courses in other fields where general chemistry is a prerequisite.

**AP Environmental Science 11 12**  $\checkmark$   $\Rightarrow$   $\Rightarrow$   $\Rightarrow$  AP Environmental Science is designed to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them.

**AP Physics 1: Algebra-Based 10 11 12**  $\mathscr{P}$  — AP Physics 1: Algebra-Based is the equivalent to a first-semester college course in algebra-based physics. The course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; mechanical waves and sound. It will also introduce electric circuits.

**AP Physics 2 11 12** → P Physics 2: Algebra-Based is the equivalent to a second-semester college course in algebra-based physics. The course covers fluid mechanics; thermodynamics; electricity and magnetism; optics; atomic and nuclear physics.