

High School Curriculum

English

The English curriculum is designed to expand a student's writing, reading, and critical thinking skills. Our courses focus on the application of critical thinking skills in the study of literature. The literature selections range from the classics to more contemporary works. Each course stresses the importance of writing. By the time students graduate from Hillcrest, they will feel confident in their abilities to write at the college level and beyond. They will have had practice in reading and writing in a variety of styles and genres with the goal of improving their abilities to write with clarity, confidence and voice as well as with the proper standards of mechanics, structure, and syntax. In addition, students have the opportunity to work independently on research projects that require them to use library resources and technology. Advanced and Advanced Placement (AP) classes are offered to the strongest English students who wish to accelerate and to cover topics in greater depth in their study of English.

Math

The mathematics curriculum in the upper school starts with the most basic and fundamental course, which is Algebra I. The course includes a study of the rational numbers, equations and inequalities of one variable, graphing of linear equations, solving systems of equations in two variables, simple polynomial algebra, factoring of quadratic polynomials, simple rational expressions, introduction to quadratic equations, and a variety of word problems. Algebra II builds on the foundations studied in Algebra I while Geometry students study basic Euclidean geometric facts. Topics covered in Calculus include: formal definitions of function, domain, and range; composition and inversion of functions; techniques of graphing; induction and recursion; circle trigonometry, including polar coordinates; parametric equations; vectors; and introduction to limits. Advanced and Advanced Placement (AP) classes are offered to the strongest math students who wish to accelerate and cover topics in greater depth in their study of mathematics.

Science

The science curriculum is designed for the development of analytical and critical thinking skills in students. A strong emphasis is placed on inquiry based learning and students are encouraged to explore scientific phenomena in the world around them. In Biology, students are introduced to major unifying themes in biology, which focus on the relationship between structure, function, and the maintenance of homeostasis in living systems. In Chemistry, students study matter, its properties, and the changes matter undergoes. The topics include atomic structure, the Periodic Table, chemical bonding, molecular structure, chemical reactions, kinetic-molecular theory, gas laws, thermodynamics, and others. The goal of the course is to introduce the main topics in classical physics and to relate those ideas as much as possible to lab work as well as to everyday life. Physical Science topics covered include: one and two-dimensional motion, Newton's laws, work and energy, momentum, geometric optics, waves and oscillations, sound, electrostatics, electrical circuits, and magnetism. The students also use algebra and geometry to analyze data. Anatomy and Physiology examines both the structure as well as the function of the human body.

Advanced and Advanced Placement (AP) classes are offered to the strongest science students who wish to accelerate and cover topics in greater depth in their study of science.

History

In World History students will consider economic, political, religious, social and cultural developments that shape the contours of our world today. U.S. History surveys America's social, political, economic and cultural history. In this survey, students are not only asked to learn history; they are invited to produce and interpret history. Topics include historiography, the conquest of North America, the American Revolution, the meaning of American democracy, race and sectionalism, industrialism and the working class, immigration and Progressivism, the rise of globalism, modern popular culture, and the modern presidency. U.S. Government provides a comprehensive study of the United States Federal Government and the role of American citizens in a democracy. AP classes will be taught at a college level and will require extensive reading and writing.

Bible

The purpose of the high school Bible classes is to develop a greater understanding of scripture by engaging students directly with specific passages. Students develop skills and comfort by reading the Bible for themselves. They address real life issues and develop a theology on questions applicable to students. Seniors focus upon developing a Christian perspective on dating, marriage, and family.

Foreign Language

Hillcrest offers a course of study in foreign language that includes Spanish and Latin. The Spanish course is an intensive, accelerated approach to learning the fundamental skills and structures in Spanish. Students will be urged to develop their vocabulary and language skills through communication in Spanish. Students will develop the listening, reading, writing, and speaking skills that will be necessary for continued study in the language. Students will also study various cultural aspects of Spanish-speaking countries through selected readings, videos, and oral presentations. In Latin, students learn all the fundamentals of Latin grammar and acquire a basic Latin vocabulary. Literary works are also selected for the study of Latin.

Technology

The technology courses build the essential technology and problem-solving skills that students will use throughout their lives. The project-based curriculum teaches students appropriate skills such as word processing, graphics, programming, and other web skills. Keyboarding skills are introduced as well, with the goal of raising students' awareness of proper keyboarding techniques. In addition, online literacy is stressed in order to familiarize students with the online learning environment. After successful completion of these courses, students will be able to search for and combine information from a variety of resources into a coherent whole, and present this information more dynamically and effectively.

Electives

The electives offered at Hillcrest include a broad array of choices for students who are interested in the arts and athletics. Our students learn to appreciate the arts through the development and use of their talents for the glory of God. Every major sport and many minor sports are offered as an elective choice to help students develop physical skills, teamwork, Christian sportsmanship and self-discipline.