High School Course Offerings
KAIS International School

2019-2020

English

English at KAIS International School is taught through five key disciplines, two of which focus on reading (Reading Comprehension & Literature), two of which focus on writing (Academic Writing & Creative Writing), and one that focuses on building vocabulary.

Our high school English program illustrates a major component of our educational philosophy at KAIS: students will more willingly strive towards their potential when given the opportunity to express themselves and become engaged in the material. Creative Writing, for example, is designed to engage students in the act of writing and expression, which opens our students to the idea that they are "writers." Students who consider themselves writers and take pride in their work are more apt to learning the "nuts and bolts" of writing (i.e. grammar, punctuation, spelling, syntax, etc.), which is a major focus in Academic Writing.

Our approach to the two reading disciplines embodies a similar philosophy. Literature is designed to feel more like a group of friends in a book club, with the hopes of changing student perception reading for our reluctant readers and reinforcing the love of reading in our avid readers. Students who enjoy reading are more apt to master the "nuts and bolts" of engaging with various texts, which is the central focus of Reading Comprehension.

English 9

Our 9th grade students read five to six grade-appropriate novels; complete reading comprehension exercises that focus on global awareness and current events, work to expand their vocabulary; review the fundamental elements of sentence structure; and create works in various genres of writing including poetry, memoir, persuasive essay, and literary response.

English 10

Our 10th grade students read six grade-appropriate novels; complete reading comprehension exercises that focus on societal structures and current events; expand their vocabulary by focusing on the spelling, parts of speech, definitions and syntax of increasingly more difficult words; review the fundamental elements of simple sentence structures and learn more complex structures; and create works in various genres of writing including poetry, memoir, comparative essay, and research papers.

AP Language & Composition

This introductory college-level course is available for select 11th and 12th graders, who will read and carefully analyze a broad and challenging range of nonfiction prose selections, deepening their awareness of rhetoric and how language works. Through close reading and frequent writing, students will develop their ability to work with language and text with a greater awareness of purpose and strategy, while strengthening their composition skills. As students advance in their writing, they will refine their written work and confer with peers. They will also critically reflect on their written work, producing multiple drafts of selected assignments as part of the writing process. Students learn to use deductive reasoning (moving from the general to the particular) and inductive reasoning (moving from the particular to the specific) in their writing. To accomplish this, students

will be exposed to a wide range of literary sources that will serve as models, examples, and touchstones. They will read expository, analytical, personal, imaginative, and argumentative texts from a variety of authors and historical contexts, in the form of essays, letters, speeches, poems, and drama. Additionally, students will incorporate the study of visual rhetoric, examining media such as graphs, charts, infographics, photographs, films, advertisements, comic strips, and music videos.

Language and Composition is also offered as a non-AP course.

AP Literature & Composition

This course teaches beginning-college writing through the fundamentals of rhetorical theory. We will talk essentially every day about vital aspect of writing, including invention and the rhetorical appeals, disposition, structure, and style. This class is a workshop, not a rhetoric manual — a place where students will test certain kinds of writing and attempt to recover their own recollections as part of larger cultural experiences that eventually become a people's "history." The kinds of writings in this course are varied but include writing to understand, writing to explain, and writing to evaluate. The essence of scholarship is the combination of these three approaches to writing. In the course of these workshops, students will evaluate their conscious choice of diction and the appropriate use of words, their ability to create varied and effective syntactic structures, their capacity for coherence and logical organization, their ability to balance generalizations with specific and illustrative details, and, overall, their ability to combine rhetorical processes into an effective whole. What is expected most of all from our class is hard work on the part of the individual writer and careful reading and discussion on the part of the class.

Literature and Composition is also offered as a non-AP course.

Mathematics

The emphasis of mathematics instruction at KAIS is placed on developing effective problem solving skills and good study habits. Real life applications are frequently explored. Students also present their solutions to their peers on a regular basis. Motivated students are invited to participate in honors and Advanced Placement courses. In rare cases, the exceptional student is allowed to progress at his/her own pace and explore those mathematics topics that most spark the student's imagination.

Algebra I

This course serves to reinforce the basic arithmetic and algebraic manipulation skills learned in middle school. Students are gradually introduced to more difficult topics, including linear and quadratic functions, solving systems of linear equations and inequalities, graphing, and probability.

Geometry

Geometry is perhaps the most unconventional mathematics course at KAIS. Rather than focusing on problem sets and frequent test and quizzes, Geometry teaches students how to be good math students. Reading and taking notes is an integral part of the course. Another major area of focus is the logical proof. All homework assignments involve multi-step word problems that require students to make connections between Algebra, Geometry, logic, and reading comprehension.

Algebra II

Topics covered in this advanced Algebra course include conic sections, functions and transformations, quadratic functions, rational functions, exponential and logarithmic functions, sequences and series, complex numbers and the Fundamental Theorem of Algebra.

Pre-Calculus

In this course, students review the many functions introduced in previous algebra courses, and survey a variety of topics that prepare students for the study of higher-level science and mathematics. Students study vectors and their applications in anticipation of Physics; asymptotes, limits and continuity in anticipation of Calculus; and matrices and mathematical induction in anticipation of Linear Algebra. Students also spend a semester exploring trigonometric functions, graphs, identities and their applications.

Advanced Placement (AP) Statistics

AP Statistics is perhaps one of the most useful classes a student can take in high school. News reports regularly cite statistical studies. Political decisions affecting millions of people are often based on statistics. In this course, students learn the methods used to arrive at those conclusions, and the tools needed to test claims. Students focus both on the mechanics of statistical analysis and applications to real world settings, such as pharmaceutical experiments and quality control. The course draws on both current events and knowledge of mathematical concepts discussed in previous classes.

Prerequisite: Pre-Calculus

AP Calculus AB/BC

In Calculus, all of the parts from one's mathematics past come together to form both a conceptual and practical whole. Everything students have learned, from elementary operations to Pre-Calculus, are combined to help students understand everyday phenomena,

such as the math behind a car whizzing by, how long it takes to drain the bath tub, and why carrying that heavy box up the stairs is so tiring. This course is divided into two parts, differentiation and integral calculus. There are certainly many new formulas and concepts to memorize and understand. However, the emphasis is always on understanding, as the many topics within Calculus are related and build upon each other.

Prerequisite: Pre-Calculus

Science

Biology

Biology is the study of living things and their environment. The course provides opportunities for students to develop scientific processing skills, laboratory techniques, and an understanding of the fundamental principles of living organisms. Students explore cell structure and function, genetics and heredity, evolution and classification, diversity of living organisms and their ecological roles, and are introduced to animal structure and function.

Chemistry

Often called the "core science," Chemistry is the study of the elements and the ways in which they interact. It is a fascinating science and one that affects everyone daily in many ways. Chemistry is dictated by logical ideas and concepts that string together in a way that is easy to comprehend. It is far less mathematical and formula based than physics and requires less memorization than Biology. Chemistry at KAIS is approached from a laboratory perspective. This means that concepts and ideas are illustrated though activities where students can "touch, hear, and smell" the science of Chemistry. Students follow up these lab activities with projects, discussions, lectures, and occasional tests to reinforce understanding of the material.

Physics

Physics is the study of the physical world and the rules that govern it. Objects as small as electrons and as large as planets interact with each other in seemingly strange and random ways. It is the objective of Physics to shed light on these interactions and illuminate how the universe works as a whole. Both in the text and class, the

focus is on grasping the underlying concepts and applying this knowledge to mathematical and practical problems. To the extent that advanced mathematics (e.g. Calculus) is required in the course, the basic concepts will be covered during this course.

All high school sciences courses at KAIS are offered with an Advanced Placement option for motivated students.

Social Studies

Medieval History (grade 9)

Medieval history is sometimes thought of as the forgotten history. We learn about the ancients, and we are fascinated by the Age of Exploration and the Renaissance—but what lies between? This course aims to survey one thousand years of history beginning from the fall of the western part of the Roman Empire, eschewing memorization of dates and names in favor of overarching themes such as societal structures, cultural norms, and the realities of daily life. Another important aim is to make connections between medieval times and the modern world through discussions and activities. Students participate in guided note-taking sessions and maintain vocabulary logs to assist them in navigating the difficult passages from our chosen text.

Global Issues (grade 10)

In Social Studies we consider systems of power and organization that are used on countrywide scales. One important such system is that of the West. What is the West? What is Western Civilization? What are its origins and what are its impacts on different areas in today's world? During the first semester of this course, students seek in-depth answers to these and other related questions through lectures, projects, and other activities. In the second semester, students examine one conflict from each of the major geographical regions. As they learn about the causes of each conflict and wrestle with its possible resolutions, students will document their progress on their own website. Major objectives students will focus on include: source evaluation, research skills, presentation skills, consensus building, source documentation, and information synthesis/condensation.

U.S. History

This course is designed to provide a solid overview of U.S. history from colonial times through the post-Cold War world. The base text for the course is The American Pageant, 14th edition. Rather than merely memorizing a long list of historical facts about the United States, students will learn how to do history. Class sessions will alternate between analysis, review and discussions of the main text, examinations of primary sources, and addressing through independent research overarching thematic questions as well as more specific questions generated by the students themselves. Dissenting historical analysis will be included in several class discussions and will be drawn from several sources. In addition to providing a firm grounding in the events of U.S. history, this course will challenge students to draw conclusions about historical events based on textual evidence, and to clearly express those conclusions and the evidence that supports them in written form. Because students taking this course hale from all around the world, the course will regularly make connections to global events and perspectives. Motivated students are invited to take Advanced Placement U.S. History.

Government (fall semester)

Performing a detailed analysis of one government provides a foundation for evaluating governments more broadly. With this thought in mind, the aim of this class is to use the American system of government as a case study to help students understand the role of government in society more generally, and as a launch pad for a comparative study of governments all around the world. We also study the United Nations and its role in global affairs and introduce students to the world of model UN clubs and conferences.

Economics (spring semester)

It is a commonly accepted fact that individuals and nations strive to produce wealth, but how is the production of wealth best achieved, and how should the wealth that is produced be managed? In Economics, students answer these essential questions by exploring the following topics through lectures, problem sets, discussions, and activities: basic economic concepts, measurements of economic performance, national income price determination, stabilization policies, economic growth, and international trade and finance.

Electives

C++ & Applications

This course focuses on the applications of computer programming in robotics. The basics concepts of programming will be covered, including, algorithms, loops, conditionals, and events. These concepts will be combined with a project-based learning approach. The basics of electronics and robotics will also be covered with the ultimate goal of building a responsive robot to accomplish a specific task.

Leadership

This course is designed to introduce students to the concept of leadership—from the personalities and attributes of great leaders to the methodologies and theories used to inspire and guide individuals and groups to success. Practically speaking, the objective of this class is for students to develop and become comfortable with using their skills from the five spheres of leadership (self-awareness, group process, managerial skills, communication, and human relations). When applied to one's daily life, these skills help to create a pattern of success and achievement.

Music Performance

Students learn valuable communication and group management skills in the context of a performing band. Though music theory and technique are addressed, the main focus of the class is how to play music as a band, selecting songs the students choose. The final project will be a live performance of one or more songs. On several occasions, the class will visit a professional music studio to practice. All levels of musical proficiency are welcome.

Pop-up Books & Cards

Pop-up books are not only for children! In this class students learn the basics of book structures and a few different styles of paper folding by making samples. Building from these basics, students will then choose to make a four-page pop-up book or a set of gift cards.

Psychology

Psychology is the study of how genetics, environment, and culture affect human behavior. This survey course is designed to provide students with an overview of this rapidly changing field. Topics to be explored include how humans learn, motivation, language and social development, social influences on behavior, and mental disorders. As many students have had experiences in multiple countries, cross-cultural psychology will also be discussed. Although not specifically intended to be a self-help course, students will inevitably gain some insight into their own experiences as members of a family, school community, and society.

Robotics

In this class, students design, program, build and drive their own robots. Members also have the opportunity to compete against other international schools in the Vex Robot Tournaments in Tokyo and Taiwan. The Robotics program provides a great chance for students to get creative with some hands-on building and learn the basics of robotics and programming.

Foreign Language

Japanese

The Japanese program at KAIS is split into two main tracks. The track for native speakers focuses on improving literary fluency and introducing students to high-level academic Japanese used in university classes and publications. The lower level track equips new arrivals to Japan, or those with developing Japanese skills, with the ability to function in Japanese society smoothly and enjoy interacting with a new culture. In addition to regular kanji and vocabulary quizzes, students in both tracks participate in discussion sessions—often based on Japanese cinema or cultural documentary—and complete projects that explore cross-cultural currents. The classroom experience is enhanced by the annual all-school trip where students are exposed to the various regions and traditions of Japan.

Kinetics

Fitness

This class aims to provide students with the academic and practical knowledge needed to achieve and maintain a desired level of fitness. Students learn about the fundamentals of health and fitness and the proper technique for essential exercises. Students engage in constantly varied, high intensity, functional movements that develop their physical skills. Students have the opportunity to apply these skills in a variety of sports, including cross-country, basketball, volleyball, and futsal. Throughout the course, significant emphasis is placed on cooperation, teamwork, and good sportsmanship. In the nutrition component of the course, students examine the culture and patterns that exist around food and discover why the question of "how we eat" is just as important as "what we eat." Students investigate government involvement in the current food climate, explore different arguments in the sustainable food debate, and investigate the connection between food and bodily imbalance.

Yoga

In many ways, yoga embodies the environment we strive to create at KAIS and the values we wish to impart on our students. Students do not merely go through the motions of the poses, but instead focus on controlled physical movements, connectedness, controlled breathing, and meditation. Students are sometimes called upon to complete projects related to the study of yoga. It has been a core part of our offering since the founding of KAIS, and we are proud to be one of the few schools in Tokyo offering the course.