

National University Academy  
of  
Health Sciences

2008/2009  
Course Catalog



Toll Free 1.877.252.7786

# National University Academy of Health Sciences Course Catalog

NUAHS Course Offerings	
<p><b><u>English</u></b> English 9 A/B English 10 A/B (World Literature) English 11 A/B (American Literature) English 12 A/B (British Literature) AP® Literature and Composition A/B</p> <p><b><u>Mathematics</u></b> Pre-Algebra A/B Algebra I A/B Geometry A/B Algebra II A/B Pre-Calculus A/B AP® Calculus A/B AP® Calculus B/C Statistics A/B</p> <p><b><u>Science</u></b> Biology A/B Chemistry A/B Marine Science A/B Earth Science A/B Physics A/B AP® Biology A/B AP® Chemistry A/B</p>	<p><b><u>Social Science</u></b> World History A/B US History A/B American Government Economics AP® European History A/B AP® Government</p> <p><b><u>Foreign Language</u></b> Spanish I A/B Spanish II A/B Spanish III A/B</p> <p><b><u>Electives</u></b> Sports Training Nutrition &amp; Weight Management Careers in Health Geography Sociology Health Health career Game Theory Digital Photography Advanced Digital Photography Intro to Journalism Earth Science CAHSEE Math Prep</p>

**Note: During 2008/2009, the majority of students will be freshmen offerings. Other course offerings will be available for upper-classmen transfer students. Additional courses may be added throughout the year.**

## English Language Arts

### English 9 A/ B

#### English 9 A

The first semester of 9th Grade English is a survey English Literature course. English 9A covers literary terminology, vocabulary building, test taking strategies, and several literary genres including poetry, the short story, myths, the essay, and the drama *Romeo and Juliet*, amongst other literary items. This course will introduce students to the requirements of the student essay and offers the opportunity to write both poetry and the short story. Students will have the opportunity for self-assessment as well as for teacher guidance and assessment throughout the course. This course also includes a health and biomedical science component.

Prerequisites: English 8

#### English 9 B

The second semester of 9th Grade English is an introductory course for all other high school English courses. The course covers literary terminology, vocabulary building, test taking strategies, and several literary genres including poetry, the short story, myths, drama, and the essay. This course will introduce students to the requirements of the student essay and offers the opportunity to write both poetry and the short story. Students will have the opportunity for self-assessment as well as for teacher guidance and assessment throughout the course. This course also includes a health and biomedical science component.

Prerequisites: English 8 and English 9 A

### English 10 A/ B

10th Grade English is a world literature survey class. The class covers literary terminology, vocabulary building, test taking strategies, and several literary genres including poetry, short story, epics, myths, drama, the essay, the reading of technical documents and the business letter. Students will gain skills in the areas of language mechanics, vocabulary development, and directed reading and writing. This class will introduce students to the requirements of the student essay and offers the opportunity to write poetry, short stories and other dramatic dialogues. Students will involve themselves in self-assessment as well as in teacher guided practice and assessment throughout the class. This course also includes a health and biomedical science component.

The literature of the class includes selections from Nobel Prize in Literature winners and Pulitzer Prize winners. Among the authors and poets included in the class are O. Henry, Jamaica Kincaid, David Guterson, R.K. Narayan, Leo Tolstoy, William Melvin Kelley, Rabindranath Tagore, David Diop, Emily Dickinson, Pat Mora, Vassar Miller, Robert Frost, Bei Dao, Shu ting, William Carlos Williams, Gabriela Mistral, Octavio Paz, Elizabeth Bishop, William Shakespeare, Emily Bronte, Anna Akhmatova, Leopold Staff, Anita Desai, Vladimir Nabokov, Pearl S. Buck, Virginia Woolf, Chinua Achebe, N. Scott Momaday, Elie Wiesel, Vincent Canby and Roger Ebert. We will also read Sophocles's *Antigone* and Alfred Lord Tennyson's *Morte d'Arthur* as well as a selection from T.H. White's *The Once and Future King*.

Prerequisite: English 9 B

## **English 11 A/B**

11th Grade English is an American literature survey course. This course covers literary terminology and several literary genres including poetry, short story, speeches, political documents, the essay, and the writing of the resume. This course will introduce students to the requirements of the student essay and offers the opportunity to write poetry, the short story and dramatic dialogues. Students will involve themselves in self-assessment as well as in teacher guided practice and assessment throughout the course. The central focus of the course is the reflection of the American character in pre 20<sup>th</sup> century literature. We will also focus on how this literature is specific to the formation of and reflection of American culture. Our study includes forming generalizations about how a land and the experience in that land begins to form a particular genre of writing as well as a philosophical way of seeing events and creating meaning. This course also includes a health and biomedical science component.

The literature of the course includes selections from Mark Twain, Benjamin Franklin, Thomas Jefferson, Phyllis Wheatley, Dr. Martin Luther King, Patrick Henry, Washington Irving, Edgar Allen Poe, Nathaniel Hawthorne, Ralph Waldo Emerson, Henry David Thoreau, Emily Dickinson, Walt Whitman, Ambrose Bierce, Robert E. Lee, Abraham Lincoln, Frederick Douglas, Brete Harte, Jack London, Larry McMurty, Kate Chopin, Edith Wharton, Willa Cather, Edgar Arlington Robinson and Edgar Lee Masters.

The literature of the course also includes selections from American poets, Ezra Pound, William Carlos Williams, Wallace Stevens, W.H. Auden, e.e. cummings, Archibald MacLeish, Marianne Moore, Carl Sandburg, Robert Frost, Langston Hughes, Claude McKay, Lorna Dee Cervantes, Martin Espada, Simon Ortiz, Dina Chang, and Garret Hongo. Anne Tyler, Bernard Malamud, Flannery O'Connor, John Steinbeck, E.B. White, William Faulkner, Katherine Anne Porter, Eudora Welty, Sherwood Anderson, and Thomas Wolfe are the writers of fiction included in the course. Finally, we will read Arthur Miller's *The Crucible* as the drama for this semester. Students read *The Adventures of Huckleberry Finn* by Mark Twain as well as read *Of Mice and Men* by John Steinbeck.

Prerequisite: English 10 B

## **English 12 A/B**

12th Grade English is a British literature survey course. The first semester of the course covers historical literary periods and several literary genres including poetry, speeches, satires, drama, the essay, and the semester problem solving project. This course will introduce students to the requirements of the student essay and offers the opportunity to write poetry and dramatic monologues. Students will involve themselves in self-assessment as well as in teacher guided practice and assessment throughout the course. The central focus of the course is the contribution of the various periods of British literature to modern English. We will also focus on the intellectual development apparent within this literature over the eight hundred years that are covered by our study. Our study includes forming generalizations about how historical, scientific, social, and political experiences are reflected in the literature which represents ways of seeing events and creating meaning in the various periods we study. This course also includes a health and biomedical science component.

The literature of the course includes selections from *Beowulf*, Geoffrey Chaucer, Sir Thomas Malory, Christopher Marlowe, Sir Walter Raleigh, William Shakespeare, John Donne, Ben Jonson, Andrew Marvell, Robert Herrick, John Milton, Amelia Lanier, Richard Lovelace, Jonathan Swift, Samuel Johnson, Thomas Gray, Anne Finch, Countess of Winchilsea, Robert Burns; William Blake; William Wordsworth; Samuel Taylor Coleridge; George Gordon, Lord Byron; Percy

Bysshe Shelley; John Keats; Alfred, Lord Tennyson; Robert Browning; Elizabeth Barrett Browning; A. E. Houseman; William Butler Yeats; W. H. Auden; George Orwell; Elizabeth Bowen; Rupert Brooke; Siegfried Sassoon; Wilfred Owen; Virginia Woolf; Muriel Spark; D. H. Lawrence; Graham Greene; Mary Wollenstonecraft Shelley; Doris Lessing; Charlotte Bronte; and Charles Dickens.

Prerequisite: English 11 B

### **AP Literature and Composition A/B**

This advanced literature course will engage students in careful reading and analysis of a challenging set of literary works from a range of genres including the novel, short story, poetry, and drama. The focus of the course will be on intensive reading and discussion of the literature, as well introduce secondary critical essays for discussion and evaluation. Emphasis will be placed on thoughtful and cogent analysis of the readings using a variety of theoretical frameworks and devices.

The course is intended to provide students with an academic experience parallel to that of a college level literature course. This course will also include a writing component that focuses on expository, analytical and argumentative writing about the literature through both discussion and essay format. Students are expected to be active readers as they analyze and interpret textual detail, establish connections among their observations, and draw logical inferences leading toward an interpretive conclusion.

This course also prepares students who do all the coursework for the Advanced Placement Literature and Composition Exam administered each May. Students will read, write and discuss poetry, fiction, and drama at an advanced college level while using online resources to develop skills including sophisticated use of literary elements and terminology, close readings of various texts, creating, drafting, and editing college-level analytical essays, preparing and writing timed essays, and advanced use and mastery of standard English.

Prerequisites: English 11 B, recommendation from English teacher

## **History and Social Science**

### **United States History A/B**

United States History A/B provides a general overview of the history of the United States. In chronological order, students will explore America's past, examining the cultural, political, geographical, economical and technological changes that have taken place that have helped to shape and guide us as a nation today. This course will cover issues relating to America's beginnings through World War I, focusing on Constitutional issues, the Civil War & Reconstruction, industrialization, and immigration. This course also includes a health and biomedical science component.

This course also provides a general overview of the history of the United States, with an emphasis on the Twentieth Century. In chronological order, students will explore America's past, examining the cultural, political, geographical, economical and technological changes that have taken place that have helped to shape and guide us as a nation today. This course will also cover the 1920's to the Present, focusing on the Roaring 20's, the Great Depression, World War II, the Cold War, and the Modern Civil Rights Movement.

### **World History A/B**

World History A/B examines major turning points that have shaped the modern world, from the late eighteenth century through the age of imperialism. The course traces the rise of democratic ideas and develops an understanding of the historical roots of current world issues, especially as they pertain to international relations. Students develop an understanding of current world issues and relate them to their historical, geographic, political, economic, and cultural contexts. Students consider multiple accounts of events in order to understand international relations from a variety of perspectives. This course also includes a health and biomedical science component.

This course also examines the major turning points that have shaped the modern world, from World War I through the present, including the cause and course of the two world wars. The course traces the infusion of democratic ideas into the modern world and develops an understanding of the historical roots of current world issues, especially as they pertain to international relations. Students develop an understanding of current world issues and relate them to their historical, geographic, political, economic, and cultural contexts. Students consider multiple accounts of events in order to understand international relations from a variety of perspectives.

### **American Government**

This required 12th grade college preparatory class addresses state and national academic standards for American Government/Civics coursework. Topics featured will include: founding philosophies and documents with emphasis on the U.S. Constitution; separation of powers; federalism; civil rights and liberties; civic responsibility; and the American political process highlighting the role of media in today's globally interdependent community. Students will explore how the U.S. Constitution provides a flexible framework for a dynamic democratic form of government. This class is conducted in a media-rich online environment that addresses individual learning styles in an interactive format. Together we will explore and experience how an informed American citizenry exercises civil rights and liberties to participate in the political process thereby securing the blessings of liberty we have enjoyed for nearly two-and-a-half centuries. This course also includes a health and biomedical science component.

Prerequisite: US History B, World History B

### **Economics**

This course provides an introduction to the structure and operation of the U.S. economy in a global setting. Students will learn basic economic concepts such as scarcity and opportunity costs, and will analyze the role of prices and how they are determined in a market economy. They will consider the influence of the federal government on the economy including the aims and conduct of fiscal and monetary policy. Students will become well versed in the operations and changing trends of the labor market. They will study and be able to calculate and assess the significance of such aggregate measures as gross domestic product, the consumer price index, and the unemployment rate. They will gain a thorough understanding of international trade and foreign exchange, and will learn and apply the principle of comparative advantage as they analyze production and trade issues. Successful completion of this course requires students to demonstrate critical thinking, organizational, and communicative skills in the completion and presentation of challenging projects. This course also includes a health and biomedical science component.

Prerequisite: US History B, World History B

### **AP European History A/B**

The study of European history since 1450 introduces students to cultural, economic, political, and social developments that played a fundamental role in shaping the world in which they live. This course challenges students to read critically, weigh evidence and interpret problems presented by historians. Through assessment and critical analysis of historical documents and interpretations of them, students learn to analyze data, form conclusions, and present well-reasoned, persuasive arguments in written form. Without this knowledge, we would lack the context for understanding the development of contemporary institutions, the role of continuity and change in present-day society and politics, and the evolution of current forms of artistic expression and intellectual discourse.

In addition to providing a basic narrative of events and movements, the goals of the AP program in European History are to develop (a) an understanding of some of the principal themes in modern European History, (b) an ability to analyze historical evidence and historical interpretation, and (c) an ability to express historical understanding in writing. Enroll in this course because you wish to be challenged and you wish to learn. The grade you work for, you will earn - both in this course and on the AP exam.

Prerequisite: Teacher or counselor recommendation

### **AP Government**

AP United States Government and Politics is a one-semester, college level course offered to students who wish to be academically challenged and plan to take the AP exam in the spring. It is a survey course that provides an introduction into the operation of American national government. As such, the course will examine:

- The American system of government and its origins
- Political opinions, interests, and behaviors
- Political organizations, to include parties, interest groups and mass media
- The institutions of government and their role in making and enforcing public policy

- Civil liberties and civil rights
- Primary source materials and contemporary news analyses
- How to analyze and interpret data and other information relevant to U.S. government and politics.

In exposing you to these areas, it is our goal to foster the development of the analytical perspectives for interpreting, understanding, and explaining the political processes and events in this country.

Prerequisite: Teacher or counselor recommendation for placement

## **Mathematics**

### **Pre-Algebra A/B**

#### **Pre-Algebra A**

This course focuses on developing fluency with rational numbers and proportional relationships. Students will extend their elementary skills and begin to learn algebra concepts that serve as a transition into formal Algebra and Geometry.

Students will learn to think flexibly about relationships among fractions, decimals, and percents. Students will learn to recognize and generate equivalent expressions and solve single-variable equations and inequalities. Students will investigate and explore mathematical ideas and develop multiple strategies for analyzing complex situations. Students will analyze situations verbally, numerically, graphically, and symbolically. Students will apply mathematical skills and make meaningful connections to their life experiences. This course also includes a health and biomedical science component. Note: Course does not meet high school graduation requirement for mathematics.

Prerequisites: Math 6

#### **Pre-Algebra B**

This course focuses on developing fluency with rational numbers and proportional relationships. Students will extend their elementary skills and begin to learn algebra concepts that serve as a transition into formal Algebra and Geometry.

Students will learn to think flexibly about relationships among fractions, decimals, and percents. Students will learn to recognize and generate equivalent expressions and solve single-variable equations and inequalities. Students will investigate and explore mathematical ideas and develop multiple strategies for analyzing complex situations. Students will analyze situations verbally, numerically, graphically, and symbolically. Students will apply mathematical skills and make meaningful connections to their life experiences. This course also includes a health and biomedical science component. Note: Course does not meet high school graduation requirement for mathematics.

Prerequisites: Math 6 and Pre-Algebra A

### **Algebra 1A/B**

#### **Algebra 1A**

During this college preparatory Algebra course students will cover topics of the first semester of an Algebra 1 course. Students will become familiar with the language of algebra. They will use the properties of real numbers to simplify expressions, and solve equations and inequalities. They will work with ratios and proportions and study probability and statistics. They will explore functions, slope, and graphing linear equations. This course also includes a health and biomedical science component.

Prerequisites: Pre-Algebra

## **Algebra 1 B**

During this course students will study algebraic topics of the second semester of an Algebra 1 course. They will become familiar with the language of algebra. Students will be able to find rates of change from tables and graphs, slope, write equations in slope-intercept form, graph linear equations, apply intercepts, write equations in standard form, utilize point-slope form, and write linear equations using data. This course also includes a health and biomedical science component.

Prerequisites: Pre-Algebra and Algebra 1 A

## **Geometry A/B**

### **Geometry A**

Geometry A is the first semester of a Geometry course. During this eight-week course students will become familiar with the language of geometry, area and perimeter, inductive and deductive reasoning, geometric construction, geometric proof, angle properties, properties of parallel and perpendicular lines, coordinate geometry, triangle congruence, properties of triangles, and properties of quadrilaterals. This course also includes a health and biomedical science component.

Prerequisite: Algebra I B

### **Geometry B**

Geometry B is the second semester of a Geometry course. During this eight-week course students will become familiar with perimeter, area, surface area, and volume; solving right triangles; similar triangles; transformations; circle theorems; and, the effect that change has on perimeter, area, and volume measurements. This course also includes a health and biomedical science component.

Pre-Requisites: Algebra I Band Geometry A

## **CAHSEE Mathematics**

### **CAHSEE Mathematics Prep**

CAHSEE stands for California High School Exit Exam. This course is designed to review / acquaint you with the topics that you will need in order to successfully pass the mathematics portion of the exam. These topics will include the following: probability, statistics, number sense, geometry, evaluating and writing expressions, graphing, solving equations, and logical reasoning. In this course, you will first be given a pre-test so you and your teacher will have an idea of where you stand and at the end; you will be given a post-test that will show you how much your understanding of mathematics has grown. You will also be given many helpful test taking techniques that will help you to build the confidence you need to pass this test! This course also includes a health and biomedical science component.

Prerequisites: Pre-Algebra and Algebra

## **Algebra II A/B**

In Algebra II A/B, students will review the algebra tools that they obtained in Algebra I A/B: Functions, equations, graphs, linear systems, and quadratics. They will also move on to cover

matrices, polynomials and polynomial functions, and study many of the Algebra 1 concepts in more depth. Students will also cover radical functions, rational exponents, exponential and logarithmic functions, rational functions, quadratic relations, sequences and series, as well as probability and statistics. Students will have the opportunity for self assessment as well as for teacher guidance and assessment throughout the course including the preparation and finalization of two semester Problem Solving Projects, which focus on research, organization, and drafting strategies. The course covers mathematic terminology, historical and cultural advances in algebra, vocabulary building, test taking strategies, and other activities. This course also includes a health and biomedical science component.

Prerequisite: Algebra I B

### **Pre-Calculus A/B**

Pre-Calculus A/B is a mathematics course designed to help students develop an understanding of the subject of triangular, circular, and analytic trigonometry. This course also provides excellent preparation for advanced mathematics such as calculus. Topics in advanced algebra are explored thoroughly to provide a strong foundation in algebra. Students will have the opportunity for self assessment as well as for teacher guidance and assessment throughout the course including the preparation and finalization of two semester Problem Solving Projects, which focus on research, organization, and drafting strategies. The course covers mathematical terminology, historical and cultural advances in calculus, vocabulary building, test taking strategies, and other activities. This course also includes a health and biomedical science component.

Prerequisite: Algebra II B

### **AP Calculus A/B**

AP Calculus AB is a mathematics course designed to provide the student with the prerequisite skills necessary for calculus BC and the Advanced Placement Exam. A strong background in Algebra, Geometry, Coordinate Geometry, Analytic Geometry, Algebra 2, Trigonometry, Pre-calculus and Elementary Functions is necessary in order to be successful in this course. The major topics explored in this course include functions, graphs, limits, derivatives, and Integrals. Additionally, this course addresses three learning styles (visual, auditory, and kinesthetic) through projects, discussions, online interactivities, as well as through traditional coursework. Students have a full school year in order to complete this 12 unit course. Instructors have the ability to spend more time on units that require additional explanation as needed.

Prerequisite: Pre-calculus A/B, recommendation from teacher or counselor for placement

### **AP Calculus B/C**

AP Calculus BC is a mathematics course designed as an extension of AP Calculus AB. A strong background in Algebra, Geometry, Coordinate Geometry, Analytic Geometry, Algebra 2, Trigonometry, Pre-calculus and Elementary Functions is necessary in order to be successful in this course. The major topics explored in this course include functions, graphs, limits, derivatives, Integrals, polynomial approximation and series. Additionally, this course addresses three learning styles (visual, auditory, and kinesthetic) through projects, discussions, online interactivities, as well as through traditional coursework. Students have a full school year in order to complete this 12 unit course. Instructors have the ability to spend more time on units that require additional explanation as needed.

Prerequisite: Pre-calculus A/B, recommendation from teacher or counselor for placement

## **Statistics A/B**

This two semester course focuses on statistics and probability. In this course, students will learn how to make assumptions about an entire population based on a sample. This includes taking sample data and analyzing it using equations and graphs. This semester-long course will teach you how to calculate basic probabilities and how those are used in statistics. Students will have the opportunity for self assessment as well as for teacher guidance and assessment throughout the course including the preparation and finalization of two semester Problem Solving Projects, which focus on research, organization, and drafting strategies. The course covers mathematical terminology, historical and cultural advances in statistics, vocabulary building, test taking strategies, workplace documents, and math projects. This course also includes a health and biomedical science component.

Prerequisites: Algebra II B

## **Science**

### **Biology A/B**

#### **Biology A**

This course is designed to acquaint students with topics in biology, the nature of biological inquiry, the chemical and biochemical nature of life processes, the nature of the cell, and the nature of the gene, the role of genetics in individuals and populations, and ecosystems. This course also includes a health and biomedical science component.

Prerequisites: None

#### **Biology B**

This course is designed to acquaint students with topics in biology, including evolution, biodiversity, structure and function of plants and animals, animal behavior, and human body systems. Class activities will include discussion, online lab simulations and other interactive activities, lab reports, and an exploration project. This course also includes a health and biomedical science component.

Prerequisites: Biology A

### **Chemistry A/B**

#### **Chemistry A**

Chemistry A is designed to acquaint you with topics in chemistry, including the science of chemistry, matter and energy, atomic structure, the periodic table, ionic and covalent compounds, chemical composition, chemical equations and reactions, and stoichiometry. Class activities will include discussion, problem solving, online lab simulations and other interactive activities, lab reports, and an exploration project. This course also includes a health and biomedical science component.

Prerequisites: \*Biology or \*Physics

#### **Chemistry B**

Chemistry B is designed to acquaint students with topics in chemistry, including states of matter, gases, solutions, chemical equilibrium, electrochemistry, acids and bases, nuclear chemistry, organic chemistry, and biochemistry. Class activities will include discussion, problem solving, online lab simulations and other interactive activities, lab reports, and an exploration project. This course also includes a health and biomedical science component.

Prerequisites: \*Biology or \*Physics, Chemistry A

This course is designed to acquaint students with topics in chemistry, including the science of chemistry, matter and energy, atomic structure, the periodic table, ionic and covalent compounds, chemical composition, chemical equations and reactions, stoichiometry, including states of matter, gases, solutions, chemical equilibrium, electrochemistry, acids and bases, nuclear

chemistry, organic chemistry, and biochemistry. Class activities will include discussion, problem solving, online lab simulations and other interactive activities, lab reports, and an exploration project.

## **Physics A/B**

### **Physics A**

Physics A (Classical/Newtonian Physics) is designed to acquaint you with topics of physics, including motion and forces, conservation of energy and momentum, heat and thermodynamics. Class activities include discussion, problem solving, online lab simulations and other interactive activities, lab reports, and an exploration project. This course also includes a health and biomedical science component.

### **Physics B**

Physics B (Quantum Physics) is designed to acquaint you with topics of physics, including a quick review of Physics A (first semester course), units on sound, light, electricity, magnetism, atomic physics and nuclear physics. Class activities include discussion, problem solving, online lab simulations and other interactive activities, lab reports, and an exploration project. This course also includes a health and biomedical science component.

Prerequisite: Physics A

## **Earth Science A/B**

This two semester course explores the foundations of Earth Science in the following related topics / fields: Earth's place in the universe, dynamic Earth processes, Energy in the Earth system, biochemical cycles, structure and composition of the atmosphere, and California geology. Students will have the opportunity for self assessment as well as for teacher guidance and assessment throughout the course including the preparation and finalization of two semester Problem Solving Projects, which focus on research, organization, and drafting strategies. The course covers scientific terminology, historical and cultural advances in science, vocabulary building, test taking strategies, and several simulated labs, hands-on labs, the essay, workplace documents, and science projects using the scientific method. This course also includes a health and biomedical science component.

## **AP Biology A/B**

The two semester Advanced Placement Biology course, designed to prepare students to take the College Board Advanced Placement Biology exam, will acquaint students with the main themes in biology (Science as a Process, Evolution, Energy Transfer, Continuity and Change, Relationship of Structure to Function, Regulation, Interdependence on Nature, and Science, Technology, and Society). The course is designed to be the equivalent of a two-semester college introductory biology course taken by biology majors and covers the topics of molecules and cells, heredity and evolution, organisms and populations. AP Biology A, the first semester, will focus on chemistry of life, cells, cellular energetics, heredity, molecular genetics, and evolutionary biology. The second semester course, AP Biology B, will focus on the diversity of organisms, the structure and function of plants and animals, and ecology. Class activities will include discussion, problem solving, extensive lab work and other interactive activities, lab reports, and an exploration project. The twelve required AP Biology Labs are online and have been incorporated into the course, six each semester. (Instructions for accessing the online labs follow the syllabus) Extensive practice

in essay writing and in understanding and responding to multiple choice questions are an integral part of the class.

Prerequisites: Teacher or Counselor assessment

### **AP Chemistry A/B**

Students enrolled in AP Chemistry will cover content equivalent to what is presented in two semesters of college general chemistry. Upon successful completion of this course and achievement of a satisfactory score on the AP Chemistry Examination, students may have the opportunity to receive general chemistry credits or place out of general chemistry classes and move into more advanced science courses during their first years in college.

During the first semester, students will review concepts presented during their first course of high school chemistry beginning with problem solving skills, data collection, significant figures, stoichiometry, organic chemistry, and the basics of the periodic table and general properties of matter. Moving from this review foundation, students will study chemical reactions, solutions, properties of gases and thermochemistry before focusing in on a more in depth examination of the periodic table and chemical bonding.

Students will explore the intricate differences between solids and liquids as they begin the second semester. Properties of solutions and reactions of acids and bases follow logically after. In addition students will also study chemical kinetics, equilibria, spontaneity, free energy, entropy, and electrochemistry during the second half of this course.

Prerequisites: Teacher or Counselor assessment and recommendation

## **Foreign Language**

### **Spanish I A/B**

#### **Spanish I A**

Spanish 1A (first-year Spanish, first semester) is a communicative beginning-level Spanish course. Students will begin to develop their Spanish proficiency through extensive interaction in the target language. Emphasis will be placed on perceiving and acquiring the correct pronunciation of sounds; using vocabulary to speak and write and to understand the spoken and written word; recognizing and using the present, past, and immediate future tenses of regular verbs and selected irregular verbs; and understanding and using basic grammatical constructions. This course also includes a health and biomedical science component.

Prerequisites: None

#### **Spanish I B**

Spanish 1B (first-year Spanish, second semester) is a communicative beginning-level Spanish course. Students will continue to develop their Spanish proficiency through extensive interaction in the target language. . Each unit also includes a variety of interactive activities, cultural notes, and cultural interviews. The activities help build competency in each of the four language skills—listening, speaking, reading, and writing. This course also includes a health and biomedical science component.

Prerequisites: Spanish IA

### **Spanish II A/B**

#### **Spanish II A**

Spanish IIA is an intermediate-level Spanish course designed for independent learners. Through videos, audio clips and a variety of interactive activities and cultural interviews students will see and hear native speakers around the Spanish-speaking world. Students will participate in both written and oral activities designed to incorporate the new vocabulary and grammar they have learned each unit.

Key components of this course are: unit assignments, discussion board posting and a term project. Students are assessed via unit vocabulary tests, completion of unit assignments, and participation in unit chat and discussions, timely postings to the discussion board, a final examination and successful completion of the term project. Unit suggestions will guide the student in completing these tasks successfully. Specific learning outcomes and reading assignments are provided on a unit basis.

Spanish IIA is intended to be the first half of a second year Spanish course at the end of which the successful student will be able to participate in everyday conversations in Spanish. Both Spanish IIA and Spanish IIB have been designed so that the student can proceed at an even pace throughout the semester. However, both courses require that the student do additional reading the first unit of the course and the seventh unit of the course. Therefore, it is important

that the student familiarize him/herself with the online course and begin reading immediately. This course also includes a health and biomedical science component.

Prerequisites: Spanish I B

### **Spanish II B**

Spanish IIB is an intermediate-level Spanish course designed for independent learners. Through videos, audio clips and a variety of interactive activities and cultural interviews students will see and hear native speakers around the Spanish-speaking world. Students will participate in both written and oral activities designed to incorporate the new vocabulary and grammar they have learned each unit.

Key components of this course are: unit assignments, virtual classroom participation, discussion board posting and a term project. Students are assessed via unit vocabulary tests, completion of unit assignments, participation in unit virtual classroom discussions, timely postings to the discussion board, a final examination and successful completion of the Term Project. Unit Suggestions will guide the student in completing these tasks successfully. Specific learning outcomes and reading assignments are provided on a unit basis.

Spanish IIB is intended to be the second half of a second year Spanish course at the end of which the successful student will be able to participate in everyday conversations in Spanish. Both Spanish IIA and Spanish IIB have been designed so that the student can proceed at an even pace throughout the semester. However, both courses require that the student do additional reading the first unit of the course and the seventh unit of the course. Therefore, it is important that the student familiarize him/herself with the online course and begin reading immediately. This course also includes a health and biomedical science component.

Prerequisites: Spanish I and Spanish II B

### **Spanish III A**

Spanish IIIA is an advanced intermediate-level Spanish course designed for independent learners. Through videos, audio clips and a variety of interactive activities and cultural interviews, students will see and hear native speakers around the Spanish-speaking world. Then students will themselves participate in both written and oral activities designed to incorporate the new vocabulary and grammar they have learned each unit.

Key components of this course are: unit assignments, virtual classroom participation, discussion board posting and a term project. Students are assessed unit by unit via vocabulary tests, completion of assignments, participation in virtual classroom discussions, timely postings to the discussion board, a final examination and successful completion of a Term Project. Suggestions will guide the student in how to best complete these tasks. Specific learning outcomes and reading assignments are provided on a unit by unit basis.

Spanish IIIA is intended to be the first half of a third year Spanish course, at the end of which the successful student will be able to participate in everyday conversations with considerable fluency in Spanish. Both Spanish IIIA and Spanish IIIB have been designed so that the student can proceed at an even pace throughout the semester. However, both courses require that the student do additional reading the first unit of the course and the fifth unit of the course. Therefore, it is important that the student familiarize him/herself with the sign-in process and begin reading immediately. This course also includes a health and biomedical science component.

Prerequisite: Spanish II

### **Spanish III B**

Spanish IIIB is an advanced intermediate-level Spanish course designed for independent learners. Through videos, audio clips and a variety of interactive activities and cultural interviews, students will see and hear native speakers around the Spanish-speaking world. Then students will themselves participate in both written and oral activities designed to incorporate the new vocabulary and grammar they have learned each unit.

Key components of this course are: unit assignments, virtual classroom participation, discussion board posting and a term project. Students are assessed unit by unit via vocabulary tests, completion of assignments, participation in virtual classroom discussions, timely postings to the discussion board, a final examination and successful completion of a Term Project. Suggestions will guide the student in how to best complete these tasks. Specific learning outcomes and reading assignments are provided on a unit by unit basis.

Spanish IIIB is intended to be the second half of a third year Spanish course, at the end of which the successful student will be able to participate in everyday conversations with considerable fluency in Spanish. Both Spanish IIIA and Spanish IIIB have been designed so that the student can proceed at an even pace throughout the semester. However, both courses require that the student do additional reading the first unit of the course and, the case of Spanish IIIA, fifth unit of the course. Therefore, it is important that the student familiarize him/herself with the E-Classroom sign-in process and begin reading immediately. This course also includes a health and biomedical science component.

Prerequisite: Spanish II and III A

## **Arts**

### **Digital Photography**

In this course students explore digital photography and related technologies for the production of fine art. Students will be given assigned readings and writings, will be asked to produce art work and will be asked to participate in class discussion to better understand the physical, conceptual and theoretical characteristics of the electronic media as it pertains to art and art making.

Emphasis will be placed on the students' development of an understanding of the evolution of and the theory associated with art, photography and electronic imaging in a way that will help them to produce expressive and thoughtful works of art. Students will be introduced to the basic technology necessary for the production of their art work. Students will be expected to demonstrate an ability to use the tools competently in the production of their art work; however, the production and analysis of expressive and thoughtful art work is the main objective of this course.

### **Advanced Digital Photography**

This course also provides students with advanced knowledge of techniques and skills in the application of electronic and digital/computer technologies to all areas of commercial photography. The integration of technical skills and aesthetic expression are emphasized along with a study of different photographic themes and important photographers associated with those themes. Projects require exploration and experimentation. Students develop skills necessary to create their own unique body of work using digital photographic technologies. During this course, students can expect to further develop their photographer's eye. Although there is no required text for this class, it is recommended that students purchase a Photoshop Elements Supplement to help expand their digital studio repertoire.

## **Electives**

### **Physical Education 1**

This class promotes fun through sport and athletics. Students will actively participate in the development and comprehension of sport activities. It is primarily designed to help students fulfill the Physical Education portion for a High School diploma. This course also includes a health and biomedical science component.

### **Physical Education 2**

This class promotes improving your overall health through developing a fitness and nutrition program. Students will actively participate in the development and comprehension of sport activities. It is primarily designed to help students fulfill the Physical Education portion for a High School diploma. This course also includes a health and biomedical science component.

### **Introduction to Computer Applications**

Introduction to Computer Applications is designed to familiarize students with computers and their applications. It will also emphasize the use of computers and technology throughout their high school, college, and future careers. Students will learn fundamental concepts of computer hardware and software and become familiar with a variety of computer applications, including word-processing, spreadsheets, databases, and multimedia presentations. Students will also investigate Internet-based applications, working with email and learning how to browse the web. Coursework also includes activities that explore social and ethical issues related to computers. This course also includes a health and biomedical science component.

### **Health**

This course is designed to familiarize students with the topics of health, including personal health, consumer and community health, injury prevention and safety, alcohol, tobacco, and other drugs, physical activity and nutrition, environmental health, family living, individual growth and development, and communicable and chronic disease. This course is directly related to students' lives and the changes, challenges, and lifestyle habits they will be faced with. This course also includes a health and biomedical science component.

### **Geography**

This one semester social science course provides students with the opportunity to explore the relationship between living things and their environment. The course will focus on physical, cultural and historical geography and its relation to modern world problems. By following six major themes, students will gain an understanding and appreciation of the world in which they live. The themes include: Definitions and uses of Geography, The World in Spatial terms, Physical Systems, Environment and Society, Human Systems, and Places and Regions.

Students will explore in geographic terms not only current world events but also happenings in their own lives. Through this course, students will gain an appreciation and knowledge of the world in which they live and an understanding of their responsibility as a member of the global community.

## **Introduction to Journalism**

In this course students will learn skills necessary in communicating in the print/electronic media with emphasis on writing, but also including interviewing, observing, and reporting. Students will become intelligent consumers of the mass media and learn legal, moral, and ethical responsibilities inherent in the free press. Students will learn the elements of lead writing, inverted pyramid, news story construction, attribution, and appropriate newspaper style.

## **Marine Science A/B**

Marine Science is the study of the oceans on planet Earth. The course of study for Marine Science will begin with a brief look at the history of oceanography and the history of the formation of the earth itself. Students study the four major divisions of oceanography: geological oceanography, chemical oceanography, physical oceanography, and biological oceanography.

Geological oceanography is the study of the seafloor; what it is made of and how it "works". Students will study the concepts of plate tectonics, continental margins, ocean basins, sedimentation, and the structure of the seafloor. This study of geological oceanography will help us answer the question "Why are the oldest rocks that make up the seafloor only about 250 million years old when the oldest rocks found on the continents are over 4.5 billion years old?"

Chemical oceanography is the study of the composition of seawater. Students will learn about the properties of the water molecule, the structure and properties of seawater, how light is refracted by seawater, and dissolved gases in seawater. Our study of chemical oceanography will help us answer the question "What makes seawater salty when the rivers that supply water to the oceans are not salty?"

Physical oceanography is the study of the movement of the water in the oceans. Students will learn about ocean currents, waves, and tides. The study of physical oceanography will help us answer the question "How is it possible that global warming will lead to the next ice age?"

Biological oceanography is the study of life in the oceans. Students will learn about primary production in the oceans, the factors that affect life in the oceans, the plankton (the drifters), the nekton (the swimmers), and the benthos (animals that live on and in the seafloor). The study of biological oceanography will help us answer the question "Why is most of the life in the oceans found near the coastlines instead of in the deep sea?"

## **Psychology**

A survey of the field of psychology as it relates to an understanding of human behavior. The course will trace the development of psychology from its earliest antecedents to the present. Students will study and chronicle the major "schools" of psychology. The focus will discuss and consider the appropriate use of psychological theory and principles in contemporary society.

This college preparatory class addresses state and national academic standards for Psychology coursework. Topics featured will include biological processes, sensation, perception, developmental processes, learning and memory, motivation and emotion, personality, stress, psychopathology, and social behavior. Students will have the opportunity for self assessment as well as for teacher guidance and assessment throughout the course including the preparation and finalization of two semester Problem Solving Projects, which focus on research, organization, and drafting strategies. The course covers scientific terminology, historical and cultural advances in psychology, vocabulary building, test taking strategies, and several simulated labs, hands-on labs, the essay, workplace documents, and science projects using the scientific method.

## **Sociology**

This college preparatory class addresses state and national academic standards for Sociology coursework. Topics featured will include: culture, socialization, social interaction, groups and organizations in society, social deviance, social stratification, global stratification, race and ethnicity, sex and gender roles, family influences, religious influences, educational values, population, environment, and social changes in collective behavior. This class is conducted in a media-rich online environment that addresses individual learning styles in an interactive format. Students will have the opportunity for self assessment as well as for teacher guidance and assessment throughout the course including the preparation and finalization of two semester Problem Solving Projects, which focus on research, organization, and drafting strategies. The course covers social science terminology, historical and cultural advances in sociology, vocabulary building, test taking strategies, the essay, workplace documents, and projects.

## **Game Theory**

Many events in life are competitive in one way or another, and Game Theory in the past few decades has revolutionized what to look for—and how to act—when engaged in competition. As you complete high school and set your sights on college, a basic knowledge of Game Theory can dramatically improve your strategic instincts and decision-making skills. The course uses a common sense approach to every day conflicts (“games”), from social settings to business environments, including analyses of getting a job or gaining admission to college, managing, bluffing, promising and even dating, to name just a few of the areas studied. Knowledge of self-interest (one's own and the other party's) is a bedrock concept of Game Theory and concrete examples and interactions are used to introduce the student to a new and effective way of systematically approaching all conflicts.

## **Introduction to Computer Applications**

Introduction to Computer Applications is designed to familiarize students with computers and their applications. It will also emphasize the use of computers and technology throughout their high school, college, and future careers. Students will learn fundamental concepts of computer hardware and software and become familiar with a variety of computer applications, including word-processing, spreadsheets, databases, and multimedia presentations. Students will also investigate Internet-based applications, working with email and learning how to browse the web. Coursework also includes activities that explore social and ethical issues related to computers.

## **AP Psychology A/B**

The AP Psychology online course is a year long course that will both introduce students to the study of psychology and prepare them to take the annual College Board exam in AP Psychology.

This is a general overview course focusing on the scientific study of both the behavioral and mental processes of human beings and animals. The syllabus follows AP Psychology guidelines and covers the following areas: history of psychology and scientific thought, biological basis of behavior, research methodology, statistics, sensation and perception, states of conscious, memory, language and intelligence, developmental psychology, personality, and learning.

Prerequisite: Recommendation from teacher or counselor