

Course Descriptions

Grades 9-12, 2009-10

All classes are full-year courses unless otherwise noted. Some courses may be offered in alternate years. A minimum of five students is necessary for a course to be offered.

Social Studies

World History I. In this course, students concentrate on four world regions: Africa, Asia, the Middle East, and Latin America. After studying early African kingdoms, cultures and trading patterns, they examine the slave trade and the impact of colonialism. The quarter devoted to Asia focuses on India and China, exploring their traditional cultures and their evolution into huge modern nations. The third quarter traces the development of the Middle East from the ancient times including the birth of three great world religious traditions, the Muslim and Ottoman empires, the founding of Israel, and the foundations of the current international situation. During the fourth quarter, students learn about the Mayan and Incan civilizations of Latin America, the impact of European exploration in that region, and the independence movements of the nineteenth century.

World History II. During the first semester, this course completes the study of world history begun in World History I. Students begin with a study of the classical civilizations of Greece and Rome and then move on to the medieval period, the Renaissance and Reformation, the formation of nation-states, the era of discovery, the Scientific Revolution, the Enlightenment, the French Revolution, the romantic era, and the Industrial Revolution. During the second semester, students focus on the challenges of the last century, studying key world issues in depth: the rise of modern totalitarian states, the world wars, the Cold War, the emergence of new technologies, the end of colonialism, the emergence of supranational organizations, terrorism, and the rise of global economics.

AP European History. In this course, students will prepare for the Advanced Placement European History national examination by studying the European history from 1400 to 2005. The course will cover such topics as the Renaissance, the Reformation, the formation of nation-states, the era of discovery, the Scientific Revolution, the Enlightenment, the French Revolution, the romantic era, the World Wars, the Cold War, and the formation of the European Union. Students will explore cultural and intellectual history as well as political, military, and economic events. Extensive writing will be required, including multiple document-based essays.

American History. Students will study U.S. History in conjunction with their study of American Literature. Topics will include indigenous America, the age of discovery, colonialism, the Revolution and establishment of the early republic, economic growth in the 19th century, slavery and its legacy, the Civil War and Reconstruction, the development of the West, populism and progressivism, participation in two World Wars, the Depression, the Cold War, Vietnam, and contemporary America.

AP United States History. In this course, students prepare for the Advanced Placement national examination in U.S. history by studying such topics as indigenous America, the age of discovery, colonialism, the Revolution and establishment of the early republic, economic

growth in the 19th century, slavery and its legacy, the Civil War and Reconstruction, the development of the West, populism and progressivism, participation in two World Wars, the Depression, the Cold War, Vietnam, and contemporary America. The course integrates such themes as demographic change, economic transformations, and diplomacy so that students may understand more general concepts of continuity and change over time. Extensive writing is required, including frequent document-based essays. Strong reading comprehension skills are also needed to handle the college-level textbook and multiple additional primary source readings.

Psychology. This course will provide a general overview of the following aspects of the history of psychology and research methods used in the field. Students will examine the biological basis of psychology and explore such topics as abnormal psychology, social psychology, learning and cognition, and developmental psychology. The textbook is supplemented with current research articles and related projects. Assessments include tests and quizzes, literature reviews, research projects, written assignments, and in-class presentations.

The Social Animal: A Course in Social Psychology. What is the effect of social influence on individuals? The Reverend Jim Jones called for his congregation to follow him and 900 people drank poisoned cool aid after giving it first to their infants and children. The key phrase is "social influence." The study of social psychology is the study of the influences that people have upon the beliefs, feelings and the behavior of others. A college textbook will be used.

AP Microeconomics. Prerequisite: Algebra II or permission of instructor. Provides an introduction to basic economic concepts and a thorough study of the principles that apply to the functions of individual decision makers, both consumers and producers, within the larger economic system. Market structure, pricing, and efficiency in both product and factor markets and the role of government in promoting greater efficiency and equity in the economy are studied through mathematical and graphical models. Expectations include 10-15 pages textbook reading per night, problem sets requiring use of algebra and graphing of functions, willingness to work with classmates to solve problems and debate approaches.

United States Government. (One semester) Students will learn about the history, fundamental principles, and design of the Constitution. They will understand the basic privileges and protections it accords to all citizens; the structure and functions of the federal government's legislative, judicial and executive branches; the role of the Federal government with respect to state and local governments; and the responsibilities of citizenship. The course will include basic economic decisions that the government makes in addition to political decisions.

Law and Society. (One semester) Aiming to provide the young adult with an education in practical aspects of the American legal system and its role in American society, this course teaches students skills such as advocacy, dispute resolution, hiring a lawyer, and the study of factual case situations, both true and hypothetical, to determine legally relevant issues. The course focuses on a variety of topics (some chosen by the students themselves) that have relevance for young adults about to embark on a new life away outside of high school. Some topics that may be addressed include consumer law including contracts and liens, the criminal justice system, civil lawsuits, family law, employment law including discrimination, unemployment, and workers compensation, and constitutional law.

AP U.S. Government & Politics. Prerequisite: U.S. History or permission of instructor. In this course, students will prepare for the Advanced Placement national examination in U.S. Government & Politics through a course of study that provides an analytical perspective on government and politics in the United States. This course involves both the study of general concepts used to interpret U.S. politics and the analysis of specific case studies. It also requires familiarity with the various institutions, groups, beliefs, and ideas that constitute U.S. political reality. The course will take a more in-depth look at U.S. government than the regular government class and takes the place of the usual Government/Law and Society social studies requirement for seniors. Students are expected to read and digest an average of 10-20 pages of reading per night, write essays, engage in research projects, and exhibit a willingness to discuss, debate, and argue positions in class.

English

World Literature I. In conjunction with the historical overview of World History I, students study literature from four major regions—Africa, Asia, the Middle East, and Latin America—in an effort to understand the interplay of an author's imagination and the context of the author's world. Great works of world literature, both ancient and modern, will be included in both required and independent reading. The literature component is integrated with the history focus, and students write essays based on primary source documents. All students have the opportunity to develop their communication skills in the areas of reading, writing, listening and speaking. Classes emphasize vocabulary exploration and critical thinking skills beyond basic comprehension, in addition to guided practice in reading insightfully and sensitively. The uses of language in a variety of genres are examined and elements of composition such as organization, voice, word choice, sentence fluency and conventions are modeled and practiced.

World Literature II. This course corresponds with the World history II course. Students trace the development of western literature, beginning with the Greeks, through the medieval, renaissance, enlightenment, and modern periods. Readings include Greek mythology and Sophocles' *Antigone*, medieval songs and stories from the Arthurian cycle and Chaucer's *Canterbury Tales*, a Shakespeare comedy; and selections from 18th and 19th century poetry. Modern works include Kafka, Dinesen, Camus, Wiesel, Solzhenitsyn, Allende, Mathabane, and Mahfouz.

AP English Language and Composition. This course is designed to prepare students for both college reading and writing experiences. Organized by rhetorical modes of narration, description, exposition and persuasion, it acquaints students with major literary figures in nonfiction writing, both early and contemporary. They analyze writing by biographers, historians, critics, journalists, political analysts and science and nature writers, as well as general essayists. Students write frequently in both informal and formal formats, moving beyond the traditional five-paragraph theme. The course will also include practice in essays of synthesis, which will include instruction in MLA documentation style, in order to prepare for the national AP examination.

American Literature. This survey of American literature is taught in conjunction with the U. S. History classes. Students will read extensively in both recognized classics of American literature and contemporary literature, using novels and plays by such writers as

Momaday, Miller, Twain, Fitzgerald, Hemingway, Salinger, Gaines, and Wilson. These texts will be supplemented by poetry, slave narratives, and additional works. Writing instruction will build on previous years and will include persuasive and critical writing.

Advanced Placement Literature and Composition. No prerequisite, but a grade of A or B in prior English classes is strongly recommended. This is a college-level class in which students become familiar with great works of Anglophone literature from Britain, the United States, and the British Commonwealth. Genres include novels, short stories, drama and poetry. Texts include Shakespearean tragedy and comedy; modern drama by Tennessee Williams and August Wilson; classic and modern novels; and a selection of poetry with emphasis on the twentieth century.

The Play's the Thing: The History and Evolution of Drama. (One semester) Students will study topics such as drama's origins in ancient Greece, its development in the Elizabethan era, the American musical stage, and contemporary film. Emphasis is placed upon analysis, interpretation and understanding of great dramatic works. Students read a variety of plays, study classic films, and even stage productions of their readings. Oral and written communication skills are stressed and a literary research paper on a dramatic work and/or playwright is required.

Writing Development. Prerequisite: Enrollment in Parallel or Support program. Writing Development is an essential component of Indian Creek's humanities instruction within the Parallel Program and is open to Support students as well. Taught twice weekly in conjunction with history and English, this course focuses on the study of the writing process and the technical aspects of writing. Students will gain knowledge about important composition structures, including paragraphs, narratives, essays, reports, letters and responses to literature. Students will learn a variety of skills and strategies that they can apply in all of their writing assignments. The grammatical focus of the course will evolve throughout the year as the strengths and needs of the students are identified. Types of writing will include narrative, descriptive, persuasive and expository essays; writing research reports; writing for tests.

Writers in the Rough. (One semester) This Creative Writing course focuses on a study of various forms and genres of prose and poetry apart from, though not excluding, expository and persuasive essays. Literary works will serve as models through analysis, application, and imitation. Composition exercises will reflect an understanding of studied forms and an application of creative techniques. Students will write daily and weekly in a journal and participate in classroom writing workshops and discussions. Local writers will be tapped for discussions and demonstrations. Students will be asked to participate in outside poetry readings such as coffee house reading or reading at local libraries and book stores. The class will culminate with a writer's portfolio and a coffee house presentation for the school/community. Publishing of the students' creative writing will be encouraged throughout the semester.

Great Conversations: Reading and Conversing with the World's Great Minds. (May be taken for one or both semesters) Interdisciplinary readings in the Humanities selected for an upper-level seminar classroom. Students read important texts for themselves and build their own understanding through class conversations with the 'authors' and with each other. Students develop lifelong skills of careful reading, developing and defending opinions with evidence, independent thinking, evaluating multiple perspectives, and thoughtful writing. This course is highly recommended for those students who plan to take or are taking Advanced Placement (AP) courses in the humanities, but other

students are welcome. Eligibility: Eleventh and twelfth grade students who are self-motivated, intellectually curious, strong readers, and have solid verbal and written expression skills. English teacher recommendation is required. Texts: Great Book Foundation, *Great Conversations* series.

The Mythological World (One semester) In this course students will engage the central question, *What does it mean to be human?* by looking at some of the archetypal stories that shape our civilizations, cultures, and values. What do the greatest stories of our history and mythology have to teach us about who we are? Through close examination of primary source texts and articles by scholars in the fields of literature and psychology, we will study the imaginative and artistic answers to some of the most profound questions of our existence. Some themes to be addressed: how to read mythology; how the stories that shape our culture reveal to us who we are; the intersection of humanity and divinity in various cultures.

British Literature. This course is intended as an overview of the foundations of the Literary Tradition in English. Possible works and authors studied include excerpts from *Beowulf*, John Milton, Shakespeare and his contemporaries, the Brontes, Jane Austin, Mary Shelley, Charles Dickens, Joseph Conrad, Virginia Woolf, and George Orwell, along with numerous poets. The course will track the development of narrative style, from the Anglo-Saxon epic to the Modernist novel. Evaluation of literary allusions and dialogue between texts throughout the development of the English forms will be at the forefront of class discussion.

Social Issues in American Fiction (One semester) This course will be global in focus and will answer “What is being written today?” and “Why is it being written?” Works included will be drawn from many genres (short stories, poetry, novels, graphic novels) and will be evaluated both on their literary merits and their relevancy to the current global climate. Students will be asked to draw connections between recently-passed and current events and the literature in question.

Literature of Imagination (One or both semesters) This study of imaginative literature over the past few centuries includes works of fantasy, science fiction, utopian and apocalyptic visions, magical realism and the bizarre. Students will read important texts for themselves and build their own understanding through class conversations with the ‘authors’ and with each other. Some themes to be addressed: evolution of oral tales to fairy tales and the lessons that they teach; stories of imagination as social and political criticism; the fantastical and the torments of the human heart; the expectations and dangers of science to society and the individual.

Fine and Performing Arts

Art Foundations. Art Foundations is a basic foundations course which analyzes and interprets the elements and principles of design through drawing, painting, printmaking, collage, sculpture, and ceramics. Students are encouraged to develop their ability to see and interpret what they see through various exercises and projects, to improve their skills, and to exercise creativity with thoughtful responses to projects presented. In addition, four units (Latin America, Asia, Africa, and Middle East) that compliment classroom studies will be introduced each quarter with a special project.

2D Studio Art. Drawing, painting, and collage are explored in this two-dimensional course. Drawing skills are developed through the use of pencil, colored pencil, charcoal, and ink.

Color theory and painting techniques are applied with oil pastels, watercolor, and acrylics. Concepts in design and abstraction are presented with abstract studies in collage. From representational to abstract and from basic drawing to the use of mixed media, students are encouraged to interpret, explore and create.

Advanced 2D Studio Art. Expanding on the knowledge and skills learned in 2D Studio Art, Advanced 2D Studio Art students continue to explore design concepts, drawing and painting techniques, and color theory with an emphasis on individual exploration and development. In addition, a select group of artists are introduced, discussed, and interpreted. Through group demonstrations, visual examples, and individual guidance, students will develop their ability to interpret subject matter and produce thoughtful and creative works of art.

Ceramics. (one semester) This class will examine a variety of hand-building techniques, first demonstrating how to make utilitarian ware such as pinch pots, coil pots, and slab pots, and then experimenting with sculptural possibilities. Students will learn the technique of “acting as a wheel” to hand-build coil pots that look wheel-made. Different kinds of clay and tools will be introduced. Knowledge of glazing (materials and methods) will be gained through the application of under glaze, over glaze, and one-coat glazes.

Sculpture. (one semester) From techniques learned earlier – coiling, slab work, and pinching, students build hollow forms such as birds, fish, figures, human head or mask, etc. Each technique achieves a different effect and can be combined to create more complex forms. The addition of armature wire will also provide the opportunity to work not only with clay, but also with plaster.

Drawing and Printmaking: Based on the elements and principles of design, drawing skills are developed and applied in creating subjects for printmaking. Students will produce relief prints such as linocut and monoprint; collagraphs, assembly of a wide variety of materials glued together on a rigid surface; and silkscreen.

Art History Survey of Western Art. During this course, students will develop an understanding of aesthetic principles and individual style within a cultural context. An emphasis will be placed on major stylistic movements and artistic contributions including prehistoric paintings, the classical era, medieval religious painting, the Renaissance, the Baroque and Rococo eras, neoclassicism, Romantic landscape painting, the Impressionists, Post-Impressionism. The course will conclude with a study of 20th century art, including the works of Dali, Picasso, Matisse, Pollack, Warhol, and Rauschenberg, and contemporary artists, including performance art.

Chorus. This course helps to develop student voices and knowledge of choral music by teaching the basics of vocal pedagogy: breathing, placement, and diction. Rhythmic and ear training are fundamental. Students also study the basic elements of music theory, including tempo, chord progression, and other musical terms. They will be exposed to a varied repertoire of choral literature, including multicultural and classical selections. There will be ample opportunity to perform, with instruction in performance preparation and etiquette. May be repeated for credit.

Upper School Jazz Band. The Jazz Band prepares various types of music for our scheduled concerts and performances. Students are exposed to a wide variety of musical styles including jazz, blues, be-bop, swing and popular/rock. Along with learning the aspects of ensemble playing, students work on sight reading and improvisational skills. In addition, the course covers many aspects of music theory and history. The goal of this class is to expose students to a small ensemble setting which fosters individual and group

progress. The Jazz Band will play in at least two performances during the school year. Active participation is of the utmost importance. May be repeated for credit.

Chamber Ensemble. This class covers a general historic timeline for various genres of music while performing representative pieces of music. While reviewing scales and foundation exercises, the course also ventures into World and American music. The class evolves and adapts to the instrumentation we have for the class. In addition, the Arts department makes a priority to collaborate on concerts with choir and jazz band.

Musical Theater. Students participating in this class will be exposed to a full rehearsal and performance schedule for a musical theater performance. Students will be instructed in voice, acting, dance and theater technology. All enrolled students are expected to participate in the spring musical performance as performer or stage crew. May be repeated for credit.

Guitar. Guitar studies include flat pick and finger style techniques. Students learn open and barred chords and implement them by strumming through chord progressions as well as song selections. Warm-up exercises, scales and arpeggios are introduced as well as music theory fundamentals, improvisation, ear training, and tablature. Styles studied include blues, rock, pop, classical, folk, and jazz. Two concerts are prepared and presented every year, and students may attend field trips to available seminars. May be repeated for credit.

Mathematics

Pre-Algebra. This course reinforces basic mathematical concepts necessary for the mastery of algebra, and introduces algebraic concepts. Topics covered include algebraic expressions, solving equations and inequalities, factoring, fractions and decimals, percents, ratios, proportions, application of formulas and data analysis.

Algebra I. Algebra I covers the basic tools of algebra, including properties of expressions and equations, operations with integers and algebraic equations, and proportion. Students learn to graph linear equations and to multiply and divide using powers of numbers. Adding, subtracting and multiplying polynomials lay the foundation for factoring. Students study the nature of quadratic equations and inequalities and learn how to manipulate radical and rational expressions.

Algebra 1A. This course covers the first half of a two-year Algebra 1 curriculum. Students will demonstrate an understanding of the building blocks of algebra such as variables, operations, translating into mathematical symbols, simplifying expressions, and the associated vocabulary and properties. Mastery of integer operations, 1-, 2-, and multi-step equations, simple inequalities, and rational number operations will be expected of students in this course. They will be able to interpret various types of graphs and create spreadsheets and graphs to summarize their collection of data. Probability will be introduced and students will need to demonstrate familiarity with independent and dependent events by calculating the theoretical probability of such events. Students will gain facility with perfect squares and be able to use square roots in geometry applications using formulas and a calculator. Ratio, proportion, and percent will be reviewed and students will develop their proportional reasoning skills with appropriate problem solving applications. Problem solving will be the emphasis of the course.

Algebra 1B. This course is a continuation of Algebra 1A, which reviewed pre-algebra concepts and began the study of algebra. Students will study powers and roots, polynomials,

factoring, quadratic and exponential functions. They will also study inequalities and systems of functions that use inequalities. The use of radical expressions will conclude the course. Emphasis will be on practical approaches which help students to comprehend and use abstract concepts.

Intermediate Algebra. This course reviews and consolidates the basic concepts taught in Algebra I and Geometry and introduces students to Algebra II concepts. Algebra topics include rational numbers, set theory, solutions of linear and quadratic equations, absolute value, direct and inverse variation, and concepts of algebraic functions. Geometry concepts include properties of lines and polygons, coordinate geometry, and slope. Students will also learn basic elements of probability and statistics and prepare for standardized testing in the college admissions process.

Algebra II. Students in Algebra II will build upon previously acquired mathematic concepts to explore a variety of topics, including first degree equations and inequalities, linear relations and functions, systems of equations and inequalities, polynomials and polynomial functions, and quadratic functions. They will also learn the rudiments of probability and statistics and trigonometric functions.

Geometry. After learning the basic elements of geometry (points, lines, angles, and polygons), students develop skills in deductive reasoning, creating proofs for various geometric relationships. They write and graph slopes of lines and offer proofs about the nature of parallel and perpendicular lines and about congruent and other triangles. Studying right triangles and the Pythagorean Theorem leads into the relationships of trigonometry: sine, cosine, and tangent. Exploring quadrilaterals and circles prepares students for work on the area of various plane geometric shapes and the volume of solids.

Topics in Geometry. Content is similar to Geometry, but the course is taught at a slightly slower pace and in less detail.

Trigonometry and Analytic Geometry (One semester) This one-semester course is intended as a follow-up to Geometry and Algebra II. Students will examine the relationship between angles and lengths from a geometric point of view. Topics include trigonometric ratios and their properties, complex numbers and their use in geometry, as well as vectors and matrices. This course is a necessary prerequisite for students who wish to take Precalculus in the Spring semester. Prerequisites: Algebra II and Geometry. *Note: This course plus the second semester Precalculus course take the place of a full year of Precalculus, which is no longer offered.*

Precalculus (One semester) This course is a rigorous one-semester preparation for AP Calculus BC. Only students who are planning on taking AP Calculus, or who are planning on taking calculus in college, should take this course. There will be a brief review of algebra, and followed by an in depth study of functions and their properties, graphs, and limiting behavior. We will examine polynomial, rational, exponential, logarithmic, and trigonometric functions. We will also begin some calculus topics, including difference quotients and derivatives. Prerequisites: Trigonometry and Analytic Geometry. *Note: This course plus the first semester course Trigonometry and Analytic Geometry take the place of a full year of Precalculus, which is no longer offered.*

Probability and Statistics (One semester). This course gives students an understanding of the applications of probability and statistics to real-life situations. It explains not only how statistics can be helpful but also what its limitations are. Topics include samplings and surveys, designing experiments and describing the results, chance and probability, and game theory.

Consumer Math. (One semester) Prerequisite: Algebra I. This course will cover math topics for everyday life such as pay and benefits, personal income taxes, consumer credit (including student loans, autos, etc.), balancing checkbooks, personal budgeting, investments, college expenses (both educational and peripheral). Students will use a textbook supplemented by research and problem-solving in real-life scenarios. Students will use Turbo Tax software in the computer lab.

Accounting. (One semester) Students will learn the basics of double-entry accounting. Course will include journal entries, general ledger, overview of sales, cash receipts and payroll, worksheets, trial balances, and preparation and interpretation of financial statements. The course will give the student a general understanding accounting and finance which can be used to enhance understanding in other coursework, personal finance, or to enhance job skills in the near-term or later.

AP Calculus (AB). Prerequisites: Interested students must have completed courses in which the following secondary mathematics topics were studied: algebra, trigonometry, analytic geometry, and elementary functions. This is a college-level course for juniors or seniors covering differential and integral calculus of one real variable. This course will include functions, graphs and limits, derivatives, and integrals. In addition to the textbook, students will need a graphing calculator at the level of a TI-83 or better, and access to the internet.

Science

Environmental Science. This laboratory course will study the organization of life and how ecosystems, including aquatic ecosystems, work. Students will look at the impact of human population and technology on ecological systems. Separate units will examine air, water, climate change, and the impact of agriculture and mining. Energy use and energy policy and the connections between the environment and human health will provide opportunities for research and problem solving.

Chemistry. Among the topics students will explore are atomic structure, nuclear processes, bonding, acids and bases, and the nature of various substances. Students will have ample opportunity for problem solving (i.e., "doing" chemistry, not merely memorizing), for investigating chemistry in their own lives, and for examining the implications of chemistry for contemporary social and technological issues. Students will learn the scientific method of questioning, observation, organizing data, hypothesizing explanations, making predictions, and testing theories to determine their validity.

AP Chemistry This course is designed to be the equivalent of the general chemistry course typically taken during the freshman year of college and emphasizes higher order cognition such as critical thinking and problem solving. Topics covered include aqueous reactions, solutions, chemical kinetics, chemical equilibrium, electrochemistry, thermochemistry, and chemical thermodynamics. Laboratory work is particularly important and students will continue to develop skills in the safe and proper handling of chemicals, correct use of equipment, and effectively interpreting and communicating results. Prerequisites: Successful completion of a first year chemistry course and algebra II.

Topics in Chemistry: Chemistry in the Community This course uses much of the vocabulary, problem-solving skills, and lab activities of regular Chemistry, but the focus is on chemistry as a solution to real-world problems. Students cover such topics as the water

supply, the use of petroleum products, food chemistry, nuclear chemistry, chemistry and climate, and chemistry and one's health. Many decision-making activities are included in an effort to help students become informed citizens.

Biology. Students in this laboratory course study the basic principles of cellular biology and chemistry, photosynthesis, and cell reproduction. Units on genetics and gene technology, evolution, lead into explorations of the kingdoms of life, from plant structure, function and reproduction to the various groups of invertebrates and vertebrates.

AP Biology. This is a laboratory based course that is designed to build on concepts learned in Biology. Students will engage in an in depth study of biological concepts typically learned during a freshman year college Biology course for majors. Upon completion of this course, students should gain an appreciation for evolution, energy transfer, continuity and change, relationship of structure to function, regulation, interdependence in nature, and science, technology, and society. All students are required to complete independent reading assignments from the textbook and primary literature sources. These resources will be used to reinforce concepts learned in class and to connect concepts learned in class to environmental and social concerns worldwide. Prerequisites: Interested students should have successfully completed Chemistry, Biology, and Algebra I.

Topics in Biology. Content is similar to Biology, but the course is taught at a slightly slower pace and in less detail.

Anatomy and Physiology. Prerequisites: Successful completion of Biology and Chemistry. A study of the human body emphasizing the complementary nature of structure and function, molecular and cellular interactions, homeostasis, and metabolic processes. Includes a study of cells, tissues, membranes, and several major body systems. Health-related career opportunities are also explored. Animal dissection is a requirement for the course.

AP Environmental Science. Prerequisites: Junior or senior standing, successful completion of two years of laboratory sciences, and AP committee approval. The goal of the AP Environmental Science course is 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. Main topics covered will include Earth systems and resources, the living world, population dynamics, land and water use, energy resources and consumption, pollution, and global change, and environment and society. Topics will be explored through lectures and discussions, indoor and outdoor labs, field trips, guest speakers, and will be supplemented with a college-level environmental science textbook and workbook.

AP Physics B. This course is intended to be equivalent to a university level two semester sequence in physics. The major topics covered are Newtonian mechanics, fluid dynamics, thermodynamics, electricity and magnetism, optics, and atomic physics. Algebra and trigonometry are prerequisites for the course. However, the focus will be on understanding of ideas, rather than algebra skills. There will be a significant lab component to the course, in which problem solving, critical thinking, and analysis are emphasized, as opposed to following step-by-step procedures.

Yearbook. (Prerequisite: Permission of instructor.) Students will learn the fundamentals of journalism, including contemporary page layout, feature writing, caption and headline composition, and photography. They will plan, create and edit a yearbook for the school which will be published in the spring. Technology education will be incorporated into the course through the use of such programs as InDesign, Adobe Photoshop, and software designed specifically for yearbook production.

Technology Education

Internet and Web Development. This is a hands-on course in Internet web site development. Primary emphasis is on each person building a complex web site focused on some area of academic interest and competence using (a) the HTML mark-up language, (b) programs supportive of web site construction (PhotoShop, Dreamweaver, etc.), and (c) the Javascript scripting language, with strong emphasis on the latter. About one-half the course deals with Javascript. Students will use general textbooks (TBD) on relevant topics supplemented with online articles, references, and tutorials.

World Languages

Spanish I. Language study at Indian Creek Upper School begins with communication. Students will actively converse in Spanish on a variety of topics, presenting information, expressing opinions, and sharing ideas. They will interpret written materials as well, and learn the fundamentals of vocabulary and grammar that will allow them to express themselves in writing.

Spanish II. Prerequisite: Satisfactory completion of Spanish I. This course builds on the elements mastered in Spanish I to increase students' ability to communicate in oral and written Spanish. Students review grammar rules and structures and then study exceptions and variables to the basic rules. The subjunctive, future, conditional, and several compound tenses are added to the tenses studied in Spanish I. Students use a variety of texts and create and perform their own dialogues. They also learn about the customs and artifacts of Spanish-speaking cultures.

Spanish III. Prerequisite: Satisfactory completion of Spanish II. Students in this class will use literature, cultural artifacts and patterns, music, and film to improve their command of Spanish. The complexity of classroom grammatical instruction will increase in a manner designed to engage every learning style with this living language in an immersive classroom. Role play, dramatization, and interview exercises are used to enrich the curriculum. Literature spanning the Modernist, Post Modernist, and Vanguard camps will be used as appropriate to complement the text.

Spanish IV. Prerequisite: Satisfactory completion of Spanish III. The course reviews the main elements of grammar presented in previous years and gives students extensive practice in written and oral communication. Students read short stories, novels, drama and poetry in Spanish, as well as such nonfiction genres as essays and news reports. Cultural content focuses on both Spain and Latin America, with information about art, music, geography, politics, and current events. The course is conducted entirely in Spanish.

Communication and Culture in the Hispanic World. The course is designed to utilize the skills acquired in Spanish level 1 & 2. Communicative strategies will strengthen fluency and accuracy in oral and written language production. The Hispanic Cultural aspect will be addressed through

real world settings. Students will be exposed to contemporary Hispanic writings, films, music and traditions. This is a transitional course for those who seek a nontraditional *español* level 3 curriculum and completion of their foreign language requirement. Upon successful completion of this course (grade of C or higher) and teacher recommendation, students may be placed in a traditional Spanish level 3 course. Prerequisite: Level 2 Spanish and teacher recommendation. Students who have had 2 years or more of Spanish with an interruption in their Spanish study may also qualify for this course

AP Spanish. This intensive course focuses on spoken and written mastery of Spanish with some cultural and literary background. Students cover the tenses of the indicative, imperative, and subjunctive moods; relative pronouns and comparatives between clauses; and idiomatic expressions. In preparation for the AP exam, they work on vocabulary acquisition; reviewing and practicing complex grammatical structures; speaking, both spontaneously and for presentations; informal and academic writing; reading at an advanced level; and practicing the format of the AP Spanish Language exam. The class is conducted completely in Spanish. Absolutely no spoken or written English is permitted during class time. The class will be reading from authentic materials and sources every week. Open conversations and debates on different topics are some of the class activities that will promote conversation and fluency. Prerequisite: A or B average in both semesters of Spanish IV. Students who have taken Spanish III may participate with the consent of the instructor.

Conversaciones en español (Conversations in Spanish). This course will explore topics of interest to today's adolescents while continuing to develop their ability to communicate in Spanish. Topics will include but not be limited to current events, social issues, personal concerns, school issues, the arts and many more. Students will decide upon the topics to discuss and will research authentic materials to better understand and contribute to the discussion. New vocabulary will be explored as pertains to the topic under discussion. When applicable, real world solutions will be explored and presented. An essay will follow each topic under discussion to further the reflection on the part of the student. *Conversaciones en español* will be open to students who have completed Spanish 4, Spanish 5/AP or to those concurrently enrolled in Spanish 5(AP). It will also be open to those students who are native speakers or heritage speakers of Spanish who may not have taken a formal Spanish class before.

American Sign Language I. Sign Language, the language developed in the deaf community, is full of the same nuances as all language. This course is designed to be introductory. It will give priority to learning the background and history of the development of the language as well as "hands on" use of the language. From the beginning students will engage in practical learning of vocabulary. As knowledge increases, the course will move to include signing poetry and telling stories. Sign is useful in several arenas, from interpreting spoken language in a religious, medical, theatrical or legal setting to applying it in the field of infant communication.

American Sign Language II. This course builds on the foundations of American Sign I. Students increase their receptive and expressive signing vocabulary and learn more complex grammatical and syntactical forms. There is increased emphasis on storytelling. Students have the opportunity to interact with members of the deaf community.

American Sign Language III. Prerequisite – Completion of ASL 2 with a minimum grade of a C. This course is a continuation of the vocabulary-building and grammar undertaken in ASL II. The course will include vocabulary development for describing and identifying;

narration on such subjects as weekend activities, unforgettable moments, and interesting facts; storytelling techniques; explanation and discussion of such topics as accidents, money, major decisions, and health. All units will include an introduction, sign production, extended comprehension, narrative practice, interaction, and breakaways.

French I. This course introduces the fundamentals of oral and written French. Topics covered include present and past tense of regular and irregular verbs, basic grammar rules, interrogatives, negatives, pronunciation and extensive vocabulary. A variety of written, auditory and visual material will be used. Students will be encouraged to approach speaking and reading of the language by reasoning as opposed to merely translating.

French II. Prerequisite: Successful completion of French I. This course will reinforce and build upon the fundamentals of oral and written French that were introduced in French I. Focus will be on mastery of basic grammar and vocabulary, a thorough understanding of the simple past and imperfect tenses, learning to express more complex thoughts, and thinking in French while listening and speaking. A variety of written, auditory and visual material will be used.

French III. This course reviews the main elements of grammar learned in prior years and adds the future, conditional and subjunctive tenses. There will be increased emphasis on comprehension and expression of more complex thoughts both oral and written. Literature, cultural activities, role playing and a variety of media (written, auditory and visual) will be used to complement the text. Prerequisite: Completion of French II with a minimum grade of a C. Students who took French II at another school will be required to take a placement test.

French IV. This course will review grammar learned in prior years and add the *plus-que-parfait*, future *antérieur* and conditional *passé* tenses. Students will read and interpret more complex literature. Use of English in the classroom will become more limited as the year progresses and students will be expected to listen and respond in French. Prerequisite: Completion of French III with a minimum grade of C. Students who took French III at another school will be required to take a placement test.

Latin I. Students acquire the fundamentals of Latin grammar and a basic vocabulary. They learn the cases of nouns and the conjugations and tenses of regular and irregular verbs. Reading, writing and translation are emphasized above the spoken language. A study of Roman culture and the influence of Latin on the development of the English language is also included. Students acquire a solid foundation in the derivation of English words from Latin roots, prefixes, and suffixes.

Human Development

Classes meet once a week to focus on issues that may be problems for developing teens or are related to adolescent risk taking. Lessons about physical development, cognitive development, social development, emotional development and moral development are presented at the appropriate developmental level. The human development sequence has a cyclical aspect, connecting with some topics (alcohol, tobacco and other drugs, sexuality, and maladaptive social interactions) over and over again at different developmental levels. The purpose of the course is to help young people think through behavior rationally and move toward maturity in all aspects of their behavior.

Ninth grade. Students have a general health course that includes health and wellness issues, nutrition, CPR and first aid.

Tenth grade. Students look at gender roles, adolescent violence, social roles and development, and emotional development.

Eleventh Grade. The theme for 11th grade is moral development and ethics. Eleventh grade also covers human sexuality in depth including teen sexuality and risk issues, and framing sexual behavior in an ethical context.

Twelfth grade. The focus for twelfth grade is spiritual development. The class covers life and death and the rituals that provide stability for our lives. There will be a cross cultural aspect as we look at the religions and rituals of various peoples of the world.

Physical Education

Power Yoga. In this daily one-hour class, students will focus on the yogic principles of strength building, flexibility, and relaxation through flow and breathing. Each day of the class will focus on a different aspect of yoga, including balance, muscle building and toning, flexibility, and meditation or relaxation. Prior knowledge is not required, but experienced yoga students will also find this class challenging and rewarding.

In addition, students may partially satisfy their physical education requirement by participating in one or more of the following sports. (Each is worth .5 credit toward graduation.)

FALL

Cross Country (Co-ed)

Field Hockey (Girls)

Soccer (Girls)

Soccer (Boys)

Sailing (Co-ed)

Volleyball (Co-ed)

WINTER

Basketball (Girls)

Basketball (Boys)

Ice Hockey (Boys)

SPRING

Lacrosse (Boys)

Lacrosse (Girls)

Golf (Co-ed)

Tennis (Co-ed)

Sailing (Co-ed)

Baseball (Boys)