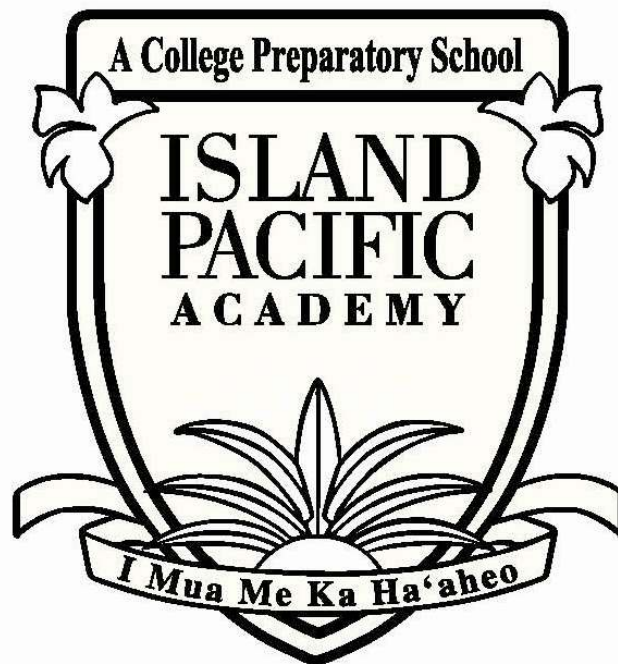


Island Pacific Academy Upper School



Course Guide
2009 – 2010

READ CAREFULLY!

The Upper School offers a variety of courses each academic year intended to prepare students for college, meet graduation requirements, and pique student interest. While graduation requirements are demanding, students have the flexibility to choose a range of courses within division requirements and according to their own schedule and interests.

SCHEDULING COURSEWORK:

Continuing US students will schedule their courses after meeting with their Advisor beginning in March. Rising freshman will schedule their courses in April, and new US school students will schedule their courses in August. Course selection must be pre-approved by a student's assigned Student Advisor. In some cases, instructor consent is required of individual courses. Parents must also sign-off on course request forms.

Course Request Forms must be returned to the US office after their completion, and after on-line course enrollment on Edline (please refer to "Registering for Classes with Edline" handout in your course registration packet).

Art and certain Science offerings have enrollment limits of 15 students.

While we will make every attempt to enroll students in their preferred courses, this will not always be possible, particularly in the junior and senior years, due to scheduling conflicts. Students should plan ahead by creating a list of alternate choices. Specialty courses are first come-first served. All course request forms will be time-stamped as they are returned to ensure a fair process. In some cases, Upper Classmen will receive priority in scheduling in order to guarantee that they will meet graduation requirements. Finalized schedules for continuing students (current US students and rising freshmen) will be available by the end of May. Book orders will be processed on-line at MDS Direct (information forthcoming) beginning in July.

COMPLETED REGISTRATION FORMS ARE DUE THURSDAY, APRIL 9TH

SPECIFIC SCHEDULING REQUIREMENTS:

All Students must begin their world language instruction in their freshman year.

All students, regardless of their participation in ILH athletic programs, must take one semester of PE 100 in either their freshman or sophomore year (Class of 2012 and all subsequent classes) in order to satisfy their Health requirement.

All students must fulfill their FA100 requirement by the end of their sophomore year (class of 2011 and all subsequent classes).

Most Advanced Placement courses require students to take the AP exam in May. Parents should be aware that there is a cost incurred by parents associated with this exam, and that AP texts are often considerably more expensive than standard texts.

NOTE TO STUDENTS AND PARENTS:

Our curriculum is designed to challenge opinion, to expand awareness of important social and political issues, and to prepare students for the diversity and rigor of the university curriculum. Most importantly, we seek to foster a consciousness within our students of why they believe what they believe and an awareness of how they know what they know. In doing so, we do not shy away from controversial subjects, issues, or ideas which tend to create polarized viewpoints. Controversial topics usually center on values and beliefs often considered private rather than public. Thus, those ideas which either confirm or question deeply held values are controversial. They are usually issues of social significance and have national and international implications. It is precisely for this reason, for their intrinsic educational and moral value, that we are willing to look deeper into hotbed issues and problems.

Controversy in and of itself is not reason enough to omit particular topics, ideas, theories, art forms, etc. from our curriculum. Evolutionary theory, for example, is a highly controversial subject. Nonetheless, it is also the backbone of modern biological science. Therefore, we choose to explore this theory in great depth to ensure that each of our students has a solid foundation in the biological sciences and is adequately prepared for university study. Works such as *Native Son*, *The Catcher in the Rye*, *1984*, and *Black Like Me*, have been challenged because of their adult themes and language, yet the literary and artistic value of these novels are widely recognized. When possible at the time of publication, these works are listed in advance in the *Course Descriptions* section of this guide.

All materials offered as part of our courses are thoroughly reviewed by our instructors and pre-approved by the principal. Our faculty adheres to the following guidelines when considering the inclusion of potentially controversial materials or topics within their classroom curriculum:

- *The issue or material should contribute to the development of critical thinking and techniques for examining other controversial issues.*
- *The issue should be related to course content and aid in achieving course objectives.*
- *The issue should be of continuing significance.*

GRADUATION REQUIREMENTS:

All students are required to take a minimum of five courses each semester, not including physical education. Each full semester of instruction within a core subject area counts as one academic unit. Courses in mathematics and foreign languages require sequential enrollment. Introductory coursework or proof of competence must be completed prior to enrollment in advanced coursework and some Fine and Performing Arts courses. Forty-two Upper School academic units are required for graduation including:

- 8 units of literature and composition, including *Origins I-II*.
- 8 units of social sciences, including 2 units of American history.
- 8 units of mathematics, including Algebra II and Geometry.
- 6 units of laboratory science, including 2 units each of a life and physical science.
- 6 consecutive units of a single world language.
- 4 units of fine arts, including 1 unit of performance in music, choir, dance, or drama.

Three units of Health and Physical Education are non-credit (Pass-Fail) academic requirements. Participation in intermediate, junior varsity, and varsity athletics may be substituted for as many as 2 P.E. units. Graduating seniors are required to have at least 100 hours of documented community service (Class of 2011 and all subsequent classes) approved by the Academic Dean. Most courses require semester final examinations for completion.

Some courses have prerequisites for enrollment and/or require instructor consent. A (GB) designation is used to indicate *Great Books*-centered coursework. A designation of (R) indicates a course required for graduation.

COURSE CODES:

GB = Great Books
IC = Instructor Consent
P = Prerequisite
R = Required

AREAS OF STUDY-COURSEWORK FOR THE COMING YEAR:

Humanities and Social Sciences (HSS)

The goal of the Humanities and Social Sciences program is for all students to develop an understanding of and appreciation for the various social, cultural, political, and economic forces that have shaped: (1) individual, family, and group beliefs, actions, and interactions; and (2) local, state, regional, national, and international institutions, practices, and relationships over time. Students are challenged to develop a balanced understanding of human cultures and relations; to problematize the forces of continuity and change; interpret human ideas and actions within their particular historical context; interrogate the role of human memory, myth, artistic expression, artifice, and written observation in human history; develop a broad awareness of the interrelatedness of human culture through comparative, interregional, thematic, and interdisciplinary study; compare and analyze societal patterns for preserving and transmitting culture while adapting to environmental or social change; interpret patterns of behavior reflecting values and attitudes that contribute or pose obstacles to cross-cultural understanding; and construct reasoned judgments about specific cultural responses to persistent human issues.

HSS 100: Problems in World History I (GB)(R)

HSS 200: Problems in World History II (R)

HSS 300a: United States History, 1619-1808 (Semester 1) (GB)

HSS 300b: United States History, 1808-1968 (Semester 2) (GB)

HSS 301: Advanced Placement United States History (GB) (IC)

HSS 401a: AP U.S. Government and Politics (IC)

HSS 401b: European History-AP Option (IC)

HSS 430: Introduction to Philosophy (Semester 1) (GB) (IC)

HSS 440: History in Film

Electives (EL)

There will be limited learning community offerings for the 2008-09 school year, which will be posted at the beginning of the school year. A number of 2007-08 learning communities have been converted to regular coursework, e.g. Digital Art, and will receive formal letter grades.

EL 300: Publications: Yearbook & Newspaper (IC)

English: Literature and Rhetoric (ELR)

The Literature and Rhetoric program is designed to introduce students to the masterworks of world literature and the nuances of composition in the English language. Coursework challenges students to develop their competencies in literary analysis, logical and persuasive argumentation, and style.

Through the *Great Books* emphasis, students are exposed to the three major genres of literature—poetry, drama, and fiction, and the variety of writing forms (narrative, expository, and persuasive) and citation styles, including footnotes, endnotes, and discipline-specific citation formats (MLA, APA, Chicago, etc.). Junior and Senior is reading and writing intensive.

Upper Division coursework includes a number of great works that contain adult themes.

ELR 100: Freshman English Composition (R) (GB)

ELR 200a: Public Speaking (Semester 1) (R)

ELR 200b: Research Methods (Semester 2) (R)

ELR 300: English Language and Composition-American Emphasis (GB)

ELR 301: Advanced Placement English Language and Composition (IC)

ELR 400: World Literature (GB)

ELR 401: Advanced Placement English Literature and Composition (GB) (IC)

ELR 410: Creative Writing and Poetry

Mathematics (MAT)

Mathematics is a language of logic and deductive thinking. Classes are developed in a spiraling manner so that essential concepts are covered at every level to various depths and degrees. Students are required to not only to perform various procedures, but to be able to effectively communicate the “why and how” of

their solution methodology. Tests and papers focus on the concepts covered and students are required to extend their thinking to a deeper conceptual level.

Each year in May, all students will take a diagnostic test. These scores, along with a teacher recommendation, will be used to place the students in the most appropriate coursework. In addition, students must receive a grade of “C” or higher in the second semester to advance in their coursework.

MAT 100: Introductory Algebra (Single Section)

MAT 101: Algebra I

MAT 150: Intermediate Algebra (P)

MAT 200: Algebra II (P)

MAT 300: Geometry (P)

MAT 310: Geometry-Trigonometry (P)

MAT 350: Topics in Mathematics (P)

MAT 400: Introductory Calculus (P) (IC)

MAT 401a: AP Calculus AB (P) (IC)

Natural Sciences (NS)

The goal of the Upper School science program is for all students to cultivate and achieve scientific literacy by developing a balanced understanding of a variety of concepts in the physical, chemical, and biological sciences and by engaging rigorously in the process skills of science through inquiry-based, hands-on laboratory science and real-world applications. With this in mind, the Science Department offers a variety of introductory and advanced coursework in Physics, Chemistry, and Biology and their sub-disciplines.

NS 100: Foundations of Science

NS 200: Physics I (P)

NS 300: Chemistry I (P)

NS 410: Biology II

NS 401a: AP Biology

NS 420: Chemistry II

Physical Education (PE)

The general purpose of physical education is to provide each student the opportunity to participate in a variety of activities. These activities are designed so the student can learn to develop fundamental skills in team and lifetime sports, develop an understanding of changes which occur in the human body as a result of physical activity, and develop a positive attitude toward fitness.

PE 100: Introduction to Health and Physical Education

PE 200: Physical Education (P)

Study Hall (SH)

Study Hall is no longer a learning community. Students may sign-up for no more than two study hall periods per semester. Study halls are intended to be a quiet work space that supports students in the successful completion of their coursework.

SH9: Freshman Study Hall

SH10: Sophomore Study Hall

SH11-12: Unsupervised Study Hall for Upperclassmen

Visual and Performing Arts (VPA)

The Visual and Performing Arts program is designed to introduce students to the aesthetic and cultural aspects of artistic creation and interpretation. Students are invited and challenged to explore the facts, symbols, and techniques of art in relation to other disciplines including the sciences and humanities. All students will develop not only the vocabulary but also the skill to make and analyze visual and performing art.

VPA 100: Introduction to Visual and Performing Arts (R)

VPA 210: 2-Dimensional Art (P)

VPA 220: 3-Dimensional Art (P)

VPA 240: Chorus I/II

VPA 250: Hula Halau

VPA 260: Yearbook

VPA 300: Reading and Writing Across the Arts (P) (IC)

VPA 400: Independent Study (P) (IC)

VPA 401: Advanced Placement Studio Art (P) (IC)

World Languages (WL)

Our world language courses introduce students to the languages and cultures of the world. Every effort is made to present opportunities to use languages in a variety of contexts: for self-expression in everyday situations, for basic survival needs in native-speaking language communities and for personal enjoyment. To this aim, lessons center on linguistic, communicative and cultural goals.

The communicative approach that we take in our courses focus on learning to use basic language forms, i.e., grammar and vocabulary, in meaningful contexts across both spoken and written genres. Curriculum is designed to develop students' abilities to interpret (not merely read or listen), communicate (not merely give and receive information), and perform (not merely write or speak) in a foreign language.

WL 100a: Spanish I

WL 150a: Spanish Foundations (IC) (P)

WL 200a: Spanish II (P)

WL 300a: Spanish III (IC) (P)

WL 400a: Spanish IV (IC) (P)

WL 500a: Advanced Placement Spanish Language (IC) (P)

WL 100b: Japanese I

WL 150b: Japanese Foundations (IC) (P)

WL 200b: Japanese II (P)

WL 300b: Japanese III (P)

COURSE DESCRIPTIONS

Humanities and Social Sciences

Standard junior-level US History offerings are all one-semester courses. Students not enrolled in the full year Advanced Placement U.S. history course must take two units of standard US courses to complete their graduation requirement in American history.

HSS 100: Problems in World History I (GB)

Required Freshman Course

Culture is simultaneously one of the most unifying and divisive issues, both in past and present times. Cultural beliefs give those who follow them a sense of self-worth and belonging, but they also work to exclude those who do not share one's particular viewpoint, especially with regards to religion. All of the major religions of the world ostensibly preach a message of peace, but many of them have found their belief systems appropriated

by factions intent on using them for violent purposes, whether it be the Christian Crusaders in the medieval period or Islamic extremists in the late twentieth century. Examining how individuals manipulate religious teachings for their own ends will be only a small aspect of this course. The main focus of this course will be on understanding the ideological and historical developments surrounding the major religions of the world and creating an increased awareness of the humanism that binds these religions and the philosophical issues and social forces that push them apart. Why and how people utilize culture will be an issue we will explore closely, not in attempt to determine which culture is “superior” but rather to examine how culture affects one’s lifestyle and choices. Using primary and secondary source materials and engaging in classroom discussions, short papers, and research projects, this class will analyze the origins and development of global cultures with special attention paid to the role of religion in people’s lives.

HSS 200: Problems in World History II

Required Sophomore Course

We are in a new millennium facing many changes and challenges. Taking a unique viewpoint of important and seminal developments throughout history, this course examines numerous topics that have influenced and continue to influence the interactions of persons through the world today. Topics that this course might explore include globalization, technological development, terrorism, slavery & human trafficking, immigration, racism, human rights, and gender roles. Through presentations, group projects, discussions, and other activities students will confront the intricate historical and contemporary connections between the nations of the world. A heavy emphasis will be placed on practicing writing and critical thinking skills as well as developing student vocabularies. Course materials will include primary sources, Great Books selections, academic articles, and other relevant media resources.

HSS 300a: United States History, 1619-1808 (first semester)

This course will focus on the development of European settlements in North America as well as analyze the interactions between Europeans, American Indians, and Africans in the Atlantic World. Special attention will be devoted to the construction of racial and gender mores, and topics covered will include slavery, religion, trade, gender roles, and social and cultural customs. In addition to online primary sources, there will be a general textbook as well as historical novels.

HSS 300b: United States History, 1808-1968 (second semester)

This course will examine the trajectory of the United States as it expands, separates, reunites, becomes a major global force, and then faces major social and cultural conflicts that threaten to tear the nation apart. Major topics of this course will include American expansion, the Civil War, Reconstruction, World Wars I and II, the Cold War, and the black freedom struggle. The reading will consist of online primary sources, a general textbook, and historical novels and accounts.

HSS 301: Advanced Placement United States History (semesters 1 & 2) (GB)

(Instructor Consent Required)

The United States Advanced Placement (AP) section is designed to prepare students for the AP exam in May 2010 and will focus on the United States from the colonial period to the present day. The AP section will be an intensive study with an emphasis on understanding major historical developments and trends and the roles various historical actors played in the seminal changes that have altered the United States. Instructor Permission is required to enroll in the AP section, which is a two-semester course.

HSS 401a: AP U.S. Government and Politics

(Instructor Consent Required)

“If men were angels, no government would be necessary.” This course is designed to help students explore James Madison’s assessment of human nature and the need for government. In this year-long course students develop an analytical perspective of the American government by examining the philosophical and historical aspects of constitutional principles and applying them to contemporary issues. Through writing, research, debate, and participation in the *We the People: The Citizen and the Constitution* program, students will interpret American politics. Students will analyze the impact of families, schools, and media in perpetuating and changing political beliefs. Institutions, their relationships to government, and the policy processes of national government are examined. Students study civil rights and civil liberties, as well as the strengths and weaknesses of the Supreme Court decisions as tools of social change.

HSS 401b: European History-AP Option

(Instructor Consent Required)

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. 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. Students will take this class in preparation for the AP European History exam in May 2010.

HSS 430: Introduction to Philosophy (Fall Semester) GB

(Instructor Consent Required)

Is knowledge possible? Does it come from reason or from experience? What is the ultimate substance of the world? Is it material or ideal? Are human actions free or determined? Does God exist? Why is there evil? Are moral norms relative or absolute? These are but a few of the questions that philosophers, and therefore philosophies, aim to resolve or, at the very least, better understand. This general course will introduce you to the foundations of western philosophy, monotheistic theology, scientific methodology, existentialism, and selected topics in modern and post-modernist thought. We will focus on some specific concepts philosophers use to articulate their experience and the world we live in (being, substance, justice, *a priori*, *a posteriori*, contingent, necessary, empirical, etc.). In addition, the course will provide a preliminary orientation about the notion of philosophical argument, its various forms and the ways arguments should be analyzed. This is a discussion-based course that relies heavily on readings and short-response papers.

HSS 440: History in Film (Spring Semester)

Yes, we will watch movies...and you can bring popcorn! That being said, this is an academic course. We will explore how history is translated into film, for better and worse. We will consider not only historical inaccuracies and anachronisms in film, but how film itself becomes a kind of “historical knowledge”, factual or counterfactual, in the public conscience and in public discourse. Do these “improvements” and/or alterations of history undermine HISTORY, or is this simply part of a regular revisionist process normally dominated by experts within the academy? Does film as a medium personalize and amplify human problems in a way that traditional history can not?

Electives

EL 300: Publication: Yearbook & Newswriting

This course will allow students to apply their journalistic skills and knowledge toward the publication of school newspaper. The newspaper's policies, journalistic principles, and guidelines have been clearly established. Students taking this course must agree to the terms of each of these founding documents in order to contribute ethically and responsibly to further the progress of this student-led publication. Students can expect to contribute to planning, writing, editing and publishing news, graphics and photography, design and layout and production. Throughout this year-long course, students will learn about ethical journalism and avoiding plagiarism, practice interviewing skills, learn how to use sources effectively and strengthen their writing skills to produce multiple editions of the student newspaper. Students must apply for newspaper staff positions, or they will be assigned by the instructor according to their level of interest and ability. All students should also expect to sell advertising to local merchants to help pay for publication.

English: Literature and Rhetoric

ELR 100(GB): Freshman Composition

(Required Freshman Course)

This course will focus on a variety of literary genres and include classical and modern works. Through their readings, students will explore dramas, novels, poetry, short stories, and plays and will hone their analytical skills. Grammar development as well as reading and vocabulary comprehension will be stressed as the aim is to create knowledgeable and fluid writers comfortable with various genres. Writing assignments may include journals, personal narratives, essays, short stories, poems and literary criticisms. The year-long goals are to help students develop their written voices and create a love of reading classical works.

ELR 200a: Public Speaking (Fall Semester)

(Required Sophomore Course)

First semester, students will learn how to apply basic skills and techniques to become confident and successful communicators. Throughout the semester, students will receive instruction on the fundamental principles of developing and delivering an effective presentation or speech. They will learn what it means to be an ethical communicator, and how strong oral and written communication skills apply to their everyday lives.

Students will present five types of speeches: impromptu, individual informative, special occasion, team informative and persuasive. Emphasis will be on planning, preparing, practicing, and presenting--the 4P's of a good speech. The writing component first semester will focus on researching topics and writing an effective full-sentence outline, as well as short writing assignments: preliminary and final self-evaluations of their progress. Students will also be introduced to the *Great Speeches of the 20th Century*, and other speeches of interest, in order to apply critical thinking skills to analyze and critique a variety of speeches and speaking styles.

ELR 200b: Research Methods (Spring Semester)

(Required Sophomore Course)

Second semester, students will focus on refining their research skills applied first semester, in order to write an effective essay, position paper, or longer research paper. Students will be introduced to each stage of the

research process, mastering each stage before moving on to the next. This part of the course will teach students how to choose a topic/subtopics, what types of resources are used in academic research, selecting appropriate sources, how to use online databases and library sources, how to make note cards to organize their sources, how to use and cite sources effectively in a research paper to avoid plagiarism, and how to write a works cited page and bibliography. Along with smaller class exercises and writing assignments, they will write a 3-5 page research paper on a topic of their choice third quarter, and fourth quarter, a 5-6 page group research paper based on a “problem” the group has identified in their community; includes an oral poster presentation. Students must conduct a minimum of 4 hours community service as part of their final project.

ELR 300: English Language and Composition-American Emphasis (GB)

(Junior Requirement if not enrolled in ELR301)

This course will focus on further application of writing skills learned during freshman and sophomore coursework, with more in-depth emphasis on research skills, and applying effective strategies and skills to expository, narrative, and argumentative writing styles. Students will demonstrate an increased understanding of written English as well as a growing maturity in their writings as they progress through the course, recording their own ideas about the process of composition through critical analysis of other writing and reading resources. Students will continue working on vocabulary development, grammar use, and spelling, among other writing conventions to improve the quality of their work as they move through the draft, revision, and publishing stages of writing. We will read a number of American short poems, plays and novels diverse in subject matter and in the period of their publication. These works contain a variety of mature themes. Students will be required to read Great Books, and summer reading is expected.

ELR 301: AP English Language and Composition

(Instructor Consent Required)

Throughout this rigorous college-level composition course, students will learn to analyze and interpret samples of good writing, identifying, and explaining an author’s use of rhetorical strategies and techniques, then apply these techniques to their writing. They will produce expository, analytical, and argumentative compositions that introduce a complex idea and develop it with appropriate evidence drawn from primary and/or secondary sources, cogent explanations, and clear transitions. They will learn to create and sustain arguments based on readings, research, and/or personal experience. Upon completion of the course, students should be able to demonstrate understanding and mastery of standard written English as well as stylistic maturity in their own writings, and an understanding of conventions of citing primary and secondary sources. Also, students should be able to move effectively through the stages of the writing process, with careful attention to inquiry and research, drafting, revising, and editing and review; be able to write thoughtfully about their own process of composition; revise a work to make it suitable for a different audience; analyze image as text; and evaluate and incorporate reference documents into research papers. The AP English Language and Composition exam will be offered to students in May 2010.

ELR 400: World Literature (GB)

This course will introduce students to literature from around the world and assist them in becoming familiar with various literary genres and will continue the school’s commitment to developing global citizens with an awareness of the cultural diversity of the world around them. Students will critically analyze works utilizing specialized vocabulary and express their interpretations and observations in oral and written form. The goal of this course is to ensure that students will be able to understand both the uniqueness and the commonalities of literature from various parts of the world and grasp the cultural and historical contexts in which authors worked.

ELR 401: AP English Literature and Composition (GB)
(Instructor Consent Required)

The AP English Literature and Composition course is designed to engage students in the careful reading and critical analysis of imaginative literature. Through the close reading of selected texts, students can deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. As they read, students should consider a work's structure, style, and themes, as well as such smaller-scale elements as the use of figurative language, imagery, symbolism, and tone. The AP English Literature and Composition exam will be offered to students in May 2010.

ELR 410: Creative Writing and Poetry

This course will allow students to discover and develop their written voice through the analysis and composition of poetry, fiction, and short dramas. In addition to developing their own voice, students will examine the creative efforts of writers from various spectrums and backgrounds. This student-centered course emphasizes experimenting with various writing genres and creating numerous finished products. Students will also utilize their knowledge of key writing terminology to construct vibrant and lively original works.

Mathematics

Each year in May, all students will take a diagnostic test. These scores, along with a teacher recommendation, will be used to place the students in the most appropriate coursework. In addition, students must receive a grade of "C" or higher in the second semester to advance in their coursework.

MAT 100: Introductory Algebra

Introductory Algebra will cover basic algebraic properties with the focus on linear functions. Students will reinforce properties of real numbers and representing linear functions in multiple ways- as verbal descriptions, equations, tables, and graphs. Additional topics covered will be polynomials, systems of equations and inequalities, radicals, and exponents.

MAT 101: Algebra I

Algebra I resumes the study of algebraic concepts begun in earlier coursework. Topics include fundamental operations with real numbers and polynomials, factoring, equations and inequalities of linear and quadratic functions and their graphs, radicals, exponents, and systems of equations and inequalities. A focus will be on building a strong base to look at these algebraic structures from a functional point of view in Algebra II.

MAT 150: Intermediate Algebra

Intermediate Algebra will be a course that focuses on the basic properties of algebraic functions. We will enhance prior ideas of functions that are essential to mathematical success while introducing deeper concepts and applications. Some of these ideas are zeros of a function, domain, properties of quadratic functions, and graphs of various functions.

MAT 201: Algebra II

Algebra II continues the study of advanced algebraic concepts using a functional approach to prepare students for calculus. Topics that are covered are domains, graphs, and properties of polynomial functions, rational functions, the division algorithm, matrices, mathematical modeling with real world data, and sequences and series.

MAT 300: Geometry

Geometry is the study of the spatial relationships of two- and three- dimensional figures. Topic covered will include deductive and inductive reasoning, congruence, transformations, right triangle trigonometry, ratio, proportion, similarity, and circles.

MAT 310: Geometry-Trigonometry

Geometry is the study of the special relationships of two- and three-dimensional figures. Topics covered will include deductive and inductive reasoning, congruence, transformations, indirect and direct proof statements, ratio, proportion, similarity, and circles. Trigonometry topics that will also be covered are identity functions, graphs of trigonometry functions, and problems involving multiple angle formulas.

MAT 350: Topics in Mathematics

(Prerequisite: Algebra II and Geometry)

This course is designed for senior-level students who may not choose to major in the sciences, computer science, or engineering. This is an inquiry and projects-based course that focuses on the broad application of mathematics to social and political institutions and problems. The instructor will determine the course of study for the year. Possible topics may include statistics, macro and microeconomics, and finance (including mortgage and interest calculations).

MAT 400: Introductory Calculus with Trigonometry

(Instructor Consent Required)

This introductory Calculus course will expand on the functional analysis topics learned in Algebra II. In addition to trigonometric functions and their properties, we will cover differentiation, and integration techniques of two-dimensional functions.

MAT 401a: AP Calculus AB

(Instructor Consent Required)

This course covers all topics included in the Calculus AB topic outline as it appears in the AP Calculus Course Description, including integration by parts. Additional calculus topics will be introduced after the AP Exam. The objective of this course is to give students the understanding of calculus concepts, related mathematical skills and appropriate technology necessary for success on the Advanced Placement Exam and in subsequent college mathematics courses.

MAT 401b: AP Statistics

(Instructor Consent Required)

The purpose of the AP course in statistics is to introduce students to the major concepts and tools for collecting, analyzing and drawing conclusions from data. Students are exposed to four broad conceptual themes:

1. Exploring data- describing patterns and departures from patterns.
2. Sampling and experimentation- planning and conducting a study.
3. Anticipating pattern- exploring random phenomena using probability and simulation.
4. Statistical Inference- estimating population parameters and testing hypothesis.

MAT 410: Discrete Mathematics

Discrete Mathematics involves the study of objects and ideas that can be divided into separate or discontinuous parts. Discrete mathematics allows students to explore unique problem situations that are not directly approachable through writing an equation or applying a common formula. Students are often required to visualize the situation through developing a model or another form of representation. Possible topics include: problem solving, reasoning, communicating, decision-making, graph theory, combinatorics, discrete probability, recursion, matrices, sets, logic, functions and relations, real number system and algebraic structures.

Natural Sciences

NS 100: Foundations of Science

(Normal Freshman Course)

This course provides a foundation of scientific methods and skills for high school science; students will also practice the study skills necessary for success in more advanced science courses. The subject matter of the course may vary from year to year, depending on students' background; there will be a focus on life science in 2009-10.

NS 200: Physics I

(Prerequisite: The Successful Completion of Algebra I)

You can't fully enjoy a game unless you know its rules. This introductory physics course is designed to do just that, give the student the tools to understand the rules of the physical environment in which they live: why a roller coaster is so much fun, and why a seat belt is a good idea to use when stopping a car suddenly; why a spoon looks bent when standing in a glass of water and that satellites and base balls follow the same rules of motion. Physics will provide students a better appreciation of the richness of nature's basic rules. Although mathematics is a very important component for mastery in physics, the main focus will be the basic ideas and concepts of physics (mechanics) presented in simple and comprehensible terms. Students will perform laboratory experiments, discuss their results, and write up their conclusions in lab reports. Course evaluation is based on a combination of homework, quizzes, lab reports, participation and final exams.

NS 300: Chemistry I

(Prerequisite: The Successful Completion of Physics)

Chemistry deals with the fundamental nature and reactions of matter. It is the core science that forms the basis of our understanding of both biological systems and our physical world. In this course students will study a wide range of topics including, atomic structure and patterns of the periodic table; chemical bonding; kinetic theory of matter; thermodynamics; equilibrium; rates of chemical reactions; acid-base theory; oxidation - reduction reactions and organic chemistry. Students will develop an understanding of atomic structure and use their knowledge of this to predict and explain the properties of matter. They will be able to discover the three-dimensional structure of molecules and the importance that organic compounds have in our daily life. There is a large practical aspect in this course, which allows the student to develop a range of experimental skills and an appreciation of the scientific method.

NS 400: Biology I

(Prerequisite: The Successful Completion of Chemistry Required)

Biology deals with the structure and function of living things, at levels from the individual cell to entire ecosystems. This course is not offered in 2008-09; it will be re-introduced as the third course in the lab science sequence, to be taken by students who have had physics and chemistry.

NS 401a: AP Biology

Prerequisite: Grades of B or higher in Chemistry, plus teacher recommendation.

This course covers the material of a first-year college biology majors' course; it requires a commitment to work at a rapid pace and with a greater degree of independence than in the usual high school course. Additional class time is also required. Topics covered in the previous biology course are reviewed and studied in greater depth; some topics only touched on in the first-year course are covered much more extensively. The first semester will focus on cell biology, genetics, and evolution; plant biology, human physiology, and ecology will be major topics in the second semester. Lab work includes the prescribed AP Biology curriculum, with additional lab projects as time permits.

NS 410: Biology II

Prerequisite: Successful completion of Chemistry.

This course provides an opportunity for a second year of biology at the high school level. There will be a review of basic principles of cell biology, genetics, evolution, and ecology; additional topics will depend on the background of students and teacher, and may vary from year to year. Plant biology and human physiology will likely be major components of the course in 2009-10.

NS 401b: AP Chemistry

Prerequisite: Grades of B+ or higher in Chemistry, plus teacher recommendation.

This course is equivalent to the first year of college chemistry; it requires an ability to master highly abstract material, with a greater degree of independence than in the usual high school course. Additional class time is also required. As an introduction, topics covered in the first-year chemistry course are covered again but in much greater depth. Other topics covered extensively include chemical kinetics, basic concepts of thermodynamics, electrochemistry, and equilibria involving acid-base, precipitation, and complex ion formation. Students are taught scientific organizational skills to help them think clearly and logically. Special emphasis is placed on developing proper laboratory techniques and on writing formal lab reports.

NS 420: Chemistry II

Prerequisite: Successful completion of Chemistry.

This course provides an opportunity for a second year of chemistry at the high school level. Topics to be studied will depend on the background and interests of students and teacher, and may vary from year to year. Possibilities include kitchen chemistry, drugs and medicines, organic chemistry, etc.

NS 430: Evolution-Adaptation and Morphology; Meaning and Controversy

(Instructor Consent Required)

In this combined history-science course, students will explore the historical development of one of the most revolutionary, and certainly the most controversial, scientific theories—*Evolution*. Fundamentally, Evolutionary Theory is an explanatory model of change capable of describing and rationalizing biological complexity: diversity of form, function, vestigial structures, adaptation, mutation, and extinction. Darwin was neither the first nor last to consider the idea of evolution, and the theory today, the centerpiece of modern biology, looks little like his initial presentation in *Origin of Species* (1859). Over the course of the year, students will trace the natural history of an idea, from Aristotle's beliefs about the origins of life through the rise of modern genetics. Students will consider the many revisions and challenges to modern evolutionary theory, including speciation, adaptive radiation, genetic drift, punctuated equilibrium, creationism and *intelligent design theory*, and their application to human history. Students will read from the great works that influenced the development of Evolutionary Theory, including Aristotle, Galen, Linnaeus, Lamarck, Cuvier, Malthus, Lyell, Wallace, and Darwin.

Physical Education

PE 100: Introduction to Health and Physical Education

IPA seeks to empower all students to sustain regular, life long physical activity as a foundation for a healthy, productive and fulfilling life. Upper School physical education classes challenge students physically and mentally through a variety of sports and activities, including football, volleyball, soccer, and basketball. Students are also introduced to non-traditional athletics such as ultimate Frisbee and other team building activities. This program will be supplemented with cardiovascular exercise and strength training. A classroom component will provide the students the basics of health care and nutrition, giving the students the knowledge necessary for lifelong health.

PE 200: Physical Education

(Prerequisite: PE 100)

This course is designed for students who have completed PE 100 and wish to go on with physical education. Students will continue to develop their health while exploring a range of physical activities and sports.

Visual and Performing Arts

VPA 100: Introduction to Visual and Performing Arts (R)

Introduction to Visual and Performing Arts welcomes students to a range of artistic practices. Using the textbook, *Perceiving the Arts*, students gain familiarity with 2- and 3-dimensional visual art, film, and performing arts through technical and historical lessons. Students make, study, and discuss art, and grading is based on visual as well as textual assignments including flashcards, sketchbooks, class work and papers. At the end of the year, every passing student will have the opportunity to continue in either Performing Arts or Visual Arts upper-level courses. Both hands-on as well as theoretical investigations into the nature of art will be the main modes of learning. Exploration of materials, creation and completion of studio projects originating inside and outside the classroom, and initiation into critical aesthetic thinking are hallmarks of this course.

VPA 210: 2-Dimensional Art

(Prerequisite: VPA 100)

2-Dimensional Art focuses on the elements and principles of visual art that relate to painting and printmaking. These aspects will be introduced through hands-on exercises as well as reading and writing assignments. Further instruction will center on which materials and techniques work best to achieve likeness and/or expression, accurately apply color, improve drawing, and compose sophisticated images. Projects include portraiture, still-life, landscape, relief printing, and digital photography. Students who complete this course satisfactorily will come away with works for a portfolio to present for college admission.

VPA 220: 3-Dimensional Art

(Prerequisite: VPA100)

This course focuses on the development of a student's creativity, craftsmanship, and artistic vocabulary through the study, creation, and discussion of sculptural work. Students will have the opportunity to create 3-dimensional art using traditional and contemporary methods. Sculptural projects include various constructions using found objects, casting, and carving. Ceramic projects include both hand-built objects and wheel thrown vessels. Concepts and historical understanding will be introduced through limited readings, lectures, and research assignments. Experimentation and creativity will be encouraged. Students who complete this course satisfactorily will come away with a basic portfolio to present for college admission.

VPA 230: Digital Art

(Prerequisite: VPA100)

Digital Art will build on skills developed in Art 100 in terms of composition, communication, and creativity. Using digital cameras as well as the latest in electronic image processing hardware, software and printing tools, students will plan, execute and edit projects in the field and in the studio in order to push the boundaries of traditional thinking in the new medium of digital art. An emphasis will be placed on building a body of work that explores one or more themes so students will finish the course with a cohesive portfolio of prints and/or DVDs of video or motion works. Digital Art will be offered on even years.

VPA 240: Chorus I/II

Upper School Chorus I/II is a combined and continuing course wherein students may begin or further their voice and choral training. For those enrolled in the beginning Section I, class time will be spent learning the

basics of vocal performance and members of the continuing Section II will progress toward singing madrigals, cantatas, jazz, arias, art songs, and solo works. Both sections will practice together on large choral works. Participation in producing a performance is required for all students. Students will also learn to create basic studio recordings.

VPA 250: Hula Halau

In this year-long, pass/fail elective course worth one VPA unit over two semesters, US students will have the opportunity to join the hula halau and focus on learning and performing hula while also learning mele and 'olelo. Featuring occasional guest kumu, this course will be held one afternoon per week and will enrich students with hula primarily as well as other Hawaiian performing arts. Students must pass one small ho'ike at the end of each semester as well as perform in May Day as well as the annual Upper School Ho'ike in May to complete the course and earn their unit. No pre-requisite. May be repeated.

VPA 260: Yearbook

(Instructor Consent Required)

This course focuses on an introduction to the principles of yearbook journalism culminating in the production of the 2010 140-page yearbook for Island Pacific Academy. This course will engage students in the basics of yearbook production including graphic design, copywriting and editing, photo composition, interviewing techniques, Ad sales, and organizational and management skills. The number of students is limited. Admission is by permission of the instructor. Co-listed with Publications: Yearbook and Newswriting. Please refer to the English department offering for the description for students enrolling through that department.

VPA 300: Reading and Writing across the Arts

(Pre-requisite is one 200-level course, Junior or Senior Status, and Instructor Consent)

Cross listed with English, this advanced course is designed to improve students' reading comprehension and writing skills through working with texts about, from, or on the arts. Students will read aesthetics, art & theater criticism, manifestoes, letters, novels, (screen)plays, and more as well as write an essay, a review, a one-act play, a research paper, a short story and a work of their choosing. This course will analyze and diagnose students' writing mechanics as well as workshop their ideas in a hands-on atmosphere.

VPA 301: Advanced Placement Art History

(Prerequisite: VPA100, One 200 level VPA course and Instructor Consent)

AP Art History will prepare students for college art history courses and the AP Art History exam. It will refine their writing and analytical skills. Following the national AP art history syllabus, AP Art History demands that students be prepared to work within a rigorous and pre-defined set of criteria as well as to push their limits in terms of work-load. Lots of memorization, writing, and tests characterize this course. Beyond the standardized work are amazing stories and beautiful art that students will marvel at and appreciate throughout their lives. AP Art History students will make special museum visits so they may see more art first-hand. AP Art History will be offered on even years.

VPA 400: Independent Study

(Prerequisite is two 200-level courses, junior or senior status, and permission of the instructor. Limited to 2 students per instructor)

Designed for the self-directed student, IS allows an upper-level art student to work on individual projects in 2-D, 3-D, Digital, Art History, Music, etc. Scheduling will be arranged so that students will audit another currently offered VPA offering so as to make the most efficient use of instructors' time. Projects will be assigned on a quarterly or semester basis and be created in conjunction with the instructor. Students must design their own syllabi, grading rubric, and assessments. In addition, students will write at least 15 pages per semester about their art and its historical and/or aesthetic context.

VPA 401: AP Studio Art

(Pre-requisite is one 200-level course, junior or senior status, and permission of the instructor.)

This alternate year offering is for students who wish to pursue visual art at the collegiate level while still in high school. Following the national AP rubric, this course requires students to build a portfolio of work in three categories for submission to be assessed by the AP program. Focusing primarily on two-dimensional art, students will have a chance to investigate themes fundamental to design and content within the visual arts while they work hard on developing their own style. Assignments will explore the elements and principles of art as well as require extensive yet rewarding homework.

World Languages**WL 100a: Spanish I**

Spanish I is an introduction to the basic grammar patterns of the language, which requires no previous knowledge of Spanish. Students will learn to speak, read, write, and understand elementary Spanish through the study of various themes such as family and friends, pastimes, daily activities, outings, and celebrations. They will also learn to describe their interests, hobbies, future goals, talk about the latest news, and even talk about staying fit and healthy. They will be able to strike up a basic conversation with new people they meet, ask people about their interests and activities, and tell them about the student's own. Students will be introduced to the contemporary Hispanic world and its culture, including: Spain, Mexico, Puerto Rico, Costa Rica, Chile, Argentina, Dominican Republic and Hispanic influenced states such as Florida and Texas.

WL 150a: Spanish Foundations

(Spanish I or equivalent and Instructor Consent Required)

This second year introductory Spanish course focuses on communication and grammar. It is a transitional class offered to those students who have taken the language Level 1 class previously. The goal is to complete the material from Spanish I by strengthening and solidifying their fundamental language skills to enable students to articulate smoothly into Spanish II.

WL 200a: Spanish II

(Spanish I, Spanish Foundations or equivalent with at least a C average and Instructor Consent Required)

Spanish II continues to emphasize the grammar skills necessary for communications as well as develop the students' knowledge and understanding of Hispanic culture. In Spanish II students will continue to develop

their abilities through the study of pertinent themes such as health and the environment. They will also learn to talk about their past, express opinions, and discuss issues relevant to the community at large. Level II emphasizes present, preterit, imperfect, perfect tenses and subjunctive. A more complex pattern of speech and grammar is employed to expand the students' communication skills. This year we are going to "visit" cities of the Hispanic World, including Segovia, Mexico City, San Juan, Santiago, Cuzco, Buenos Aires, Santo Domingo, San José, as well as Miami and El Paso in the USA.

WL 300a: Spanish III

(Successful Completion of Spanish II and Instructor Consent Required)

Spanish III develops students from the Novice level of oral proficiency to the Intermediate level, where they can create with language, participate in more challenging conversations, and communicate successfully in basic survival situations. Students at this level are expected to be familiar with basic Spanish vocabulary and to have a good grasp of most basic grammar concepts (subject/verb agreement; conjugation of the present, preterit, imperfect and future indicative tenses; subject and direct object pronouns), as well as some control over certain of the more complicated concepts (subjunctive vs. indicative; preterit vs. imperfect tenses; use of direct object pronouns; use of indirect object pronouns; *por* and *para*; conjugation of the conditional tense; future and conditional tenses; the use of formal and informal commands; the proper use of *ser* and *estar*). This year we will be introducing the culture through geographical areas like Castilla-La Mancha, The Caribbean, North and South of Mexico, The Andes and the South Cone.

WL 400a: Spanish IV

(Successful Completion of Spanish III and Instructor Consent Required)

Spanish IV is an introductory course to the Advanced Placement Spanish class. In this class students will review and use their knowledge of grammar through Spanish literature. One goal of this class is to have students describe, narrate, and present information and/or persuasive arguments on general topics with grammatical control and good pronunciation in an oral presentation of two or three minutes. Another important goal is to learn how to write a cohesive and coherent analytical or persuasive essay in reaction to a text or on a personal, academic, cultural, or social issue with control of grammar and syntax.

WL 401a: Advanced Placement Spanish Language

(Previous levels of Spanish successfully completed and Instructor Consent Required)

This course will prepare students for the AP exam in May and is comparable to an advanced level (5th- and 6th-semester or the equivalent) college Spanish language course. Emphasizing the use of Spanish for active communication, it encompasses aural/oral skills, reading comprehension, grammar, and composition. In this course, special emphasis is placed on the use of authentic source materials and the integration of language skills. Therefore, students will receive extensive training in combining listening, reading, and speaking (or listening, reading, and writing) skills in order to demonstrate understanding of authentic Spanish-language source materials.

WL 100b: Japanese I

This course is for students with no prior knowledge of Japanese language. Japanese language, culture and customs are introduced to help students understand life in Japan. Simple phrases and basic writing systems, *hiragana* and *katakana* are introduced, and students will learn how to use Japanese word processing.

WL 150b: Japanese Foundations

(Japanese I or equivalent and Instructor Consent Required)

This 2nd year, introductory Japanese course focuses on communication skills regarding familiar everyday situations for those students who have prior Japanese language experience. Students engage in activities to build on their language skills in reading, writing, listening and speaking. The goal is to complete the material from Japanese I to enable students to articulate smoothly into Japanese II.

WL 200b: Japanese II

(Japanese I, Japanese Foundations or equivalent with at least a C average and Instructor Consent Required)

This course continues the development of linguistic abilities begun in the Japanese I course. Topics remain largely the same as in Japanese I, but students develop more sophistication in their speaking and listening skills. The tasks and activities utilized in the class encourage students to become more active linguistic participants using Japanese. Approximately 100 new kanji are introduced, and students learn to read and recognize authentic written material.

WL 300b: Japanese III

(Successful Completion of Japanese 2 and Instructor Consent Required)

This is a lower-intermediate course designed to teach students how to use language in real-life situations for various communicative purposes. Students continue to develop their oral proficiency in Japanese while increasing their ability to read and write. Topics selected for this course are: Classmates, Community, Everyday Life, Weather and Climate, Hobbies and Leisure Activities, Food and Shopping as relevant to students' lives and interests. This course includes a variety of pair work, small-group work, and interviews during which students can practice using language in a low-stress atmosphere.