



2010/2011

GREEN FIELDS  
UPPER SCHOOL  
COURSE DESCRIPTIONS



GRADES 9 – 12



## GRADUATION REQUIREMENTS

Green Fields requires a minimum graduation requirement of 24 credits completed in grades 9-12. The following is a list of credits that must be taken in each of the disciplines in order to complete the 24 credits required to graduate:

English	4 credits	Must include core courses offered at Green Fields
Social Studies	3 credits	Must include core courses offered at Green Fields
Foreign Language	2 credits	Must be taken in grades 9-12; students who begin language in 8 <sup>th</sup> grade will study through the 3 <sup>rd</sup> year.
Math	4 credits	Four accredited courses, including Geometry, taken in grades 9-12
Science	3 credits	Courses from the biological and physical sciences required.
Fine Arts	1 credit	Course selections include: art, music and drama, yearbook
Elective Courses	7 credits	Those courses taken beyond the minimum requirements in any subject, <b>or</b> courses taken for enrichment (additional arts, publications, teacher aides, or sports) satisfy these requirements

## Typical Progress at Green Fields

A typical course load for students is 6 courses per year.

Freshman Year		Sophomore Year
Forms in Literature		Literature and Writing
World History		European History
Algebra or Geometry		Geometry or Advanced Algebra
Biology		Conceptual Physics or Chemistry
Foreign Language		Foreign Language
Fine Arts		Elective
Elective or Study Hall		Elective or Study Hall

Junior Year		Senior Year
American Literature		British Literature
U.S. History		Social Studies Elective
Advanced Algebra or Functions, Statistics and Trigonometry.		Functions, Statistics and Trigonometry, or Pre-calculus, or Calculus
Chemistry or Upper Level Science		Science Elective
Foreign Language Elective		Foreign Language Elective
Additional course work or elective		Additional course work or elective
Elective or Study Hall		Elective or Study Hall

(Keep in mind that college admissions officers study your curricular commitment carefully.)

## **Green Fields graduation requirements**

Green Fields is a college preparatory school. It is our mission to prepare students for the rigors of a college curriculum in addition to developing mature, responsible citizens. The teachers and administrators, as professional educators in their fields, believe that these goals can best be achieved through a four-year program that offers advanced classes in the junior and senior year. During their four years, students will be required to complete a minimum of 24 units of credit following the distribution requirements on page one of this book.

## **Your class day at Green Fields**

The Green Fields class schedule is organized into seven periods, permitting a maximum of seven courses and requiring a minimum of six courses. Beginning with the graduating class of 2006, students will be required to complete 24 high school credits for graduation. The distribution of credits in each discipline is listed on the chart on page one. Elective credits are accumulated in classes that are taken beyond the required number of courses in a discipline. Classes such as choir and advanced drama may be repeated for elective credit.

## **Study halls**

No student may elect more than one study hall period during a school day. If a student has more than one study hall due to a scheduling conflict or another circumstance, the student will be encouraged to earn .25 credit serving as an office, library, computer or teacher aide. Older students who excel in an academic area may be asked to serve as tutors for younger students. Seniors may consider developing and working on an independent study during a study hall with the approval and assistance of a faculty member.

## **Progression through the curriculum**

Senior Division courses are generally taken in sequence, unless otherwise indicated in course descriptions. Students who have completed two years of a foreign language in middle school will begin with Spanish II or French II in high school. A grade of "C" or better in a foreign language is a prerequisite for moving ahead in high school to the next level of language. Students must also earn a grade of "C" or better in Algebra to qualify for taking Geometry in the math curriculum in ninth grade. Freshmen who enter Green Fields in ninth grade will begin the math curriculum with Algebra if they have not previously taken the course in another school. Students entering Green Fields in ninth grade will be given a math placement proficiency test the first week of school.

## **Summer school**

Students who plan to enroll in summer school or correspondence courses should discuss their plans with their academic advisor or with the Principal. Core curriculum courses may not be taken in summer school, except by special permission of the appropriate department chairman. Students who fail core courses at Green Fields, however, may need to take those courses in summer school in order to graduate. Each individual case must be considered carefully by the family and discussed with the Principal. When a student retakes a course to improve a grade or to make up a failure, they will only receive one credit. Both grades earned in the course will remain on the transcript but will be averaged together when figuring the student's grade point average. Correspondence courses will usually be treated the same way as summer school courses.

## **Transfer credits**

Students who transfer to Green Fields will generally receive credit for academic courses taken in other schools. It is the student's responsibility to make sure a transcript from a previous school is given to the Principal when they begin classes at Green Fields. Credit will not be given for classes taken at another school until the Principal receives an official transcript.

## **Drop/Add deadline**

Students have *two weeks* from the beginning of each semester to drop or add a class. A drop/add slip must be filled out by the student and signed by the teacher whose class is being added and/or dropped. A parent and the Principal's signature are also required to drop or add a course. After all parties have signed the form, it must be returned to the Principal so that the change can be recorded on the student's master schedule. Any class dropped after the first two weeks will show up on the student's transcript as a withdrawal. Students enrolled in a yearlong course are expected to complete the full year.

### Auditing classes

Students will not be permitted to audit a class.

### Note about speculative offerings

Some of the courses listed among these course descriptions are courses for which some interest has been expressed. In some cases the request has been a student or family request; in others the course responds to a need that the curriculum committee and individual department members have expressed. ***If these courses do not receive a sufficient number of registration requests, they will not be offered.*** The requisite number will vary, depending upon the department and course. Therefore, students should take note: as you fill out your registration form, you need to consider carefully whether you might want these courses. If you think you may want one of these courses and you do not indicate your desire, you might not have an opportunity to add that course later. Also, you need to know that you should definitely indicate an alternative to the course, in case we are unable to offer it this year.

Students are encouraged to enroll in classes at Pima College or the University of Arizona when course demand does not warrant offering a class at Green Fields. A high school student may take up to two courses each semester at either of these institutions. Before enrolling in a class off campus, students should discuss their plans with the Principal in order to work out a schedule that allows time to take a course at Pima or the University. These classes may be used for elective credit and transcripts must be forwarded to Green Fields upon completion of a course in order to be accredited on the student's Green Fields transcript.

### Advanced Placement courses

Green Fields offers a number of Advanced Placement courses. The AP Program is a cooperative program between secondary schools and colleges to introduce high school students to college level material. The College Board provides schools with curriculum resources and those teachers who teach these courses attend institutes to study the prescribed curricula. These courses often require additional time and supplementary materials. There is a fee charged to take the AP test in May.

Advanced Placement tests are graded on a scale of one to five, with five being the highest grade. Enrolling in an AP course and taking the corresponding exam may replace a freshman, sophomore or junior level college course. Each college or university determines whether it will accept AP test scores and which scores will be granted college credit. The AP courses are challenging, provide a sense of accomplishment, may strengthen a college application, and may save time and money spent on college courses. They are a way to earn college credit at almost 3,000 universities.

The AP courses offered at Green Fields are designated in the course titles listed in this catalogue. It is the expectation of the faculty that **all students taking a course designated AP will also take the AP examination in May.** If a student drops an AP course at the end of the first semester, credit will be awarded for the work completed, but the transcript will reflect a withdrawal from the AP class on the second semester transcript.

Students with a documented disability may be eligible to take an Advanced Placement exam with testing accommodations if an eligibility form is submitted prior to the test date. Financial assistance is also available to students who qualify. A financial aide form must be submitted to the Principal when fees are being collected for the exam.

### Independent Study Courses

Students who have completed all the required courses to satisfy their graduation requirements and who wish to pursue a course of study in a particular subject area, may petition to pursue an independent study. The student will need to request a faculty advisor and develop an outline of the course of study with the advisor. A form must be filled out and submitted to the principal that includes an outline of the proposed independent study and the signature of the faculty advisor and Principal. Students interested in proposing an independent study can get a form from the principal. This form should be filled out and submitted prior to the start of a semester and will be accepted no later than two weeks after the start of a semester. **An independent study will be graded on a pass/fail basis and .50 credit will be given for completion of the work over a semester.** The faculty advisor will be responsible for meeting with the student once a week to assess the student's progress and will complete a student progress report and final assessment each semester.

## **Senior Masterwork Program**

The Senior Masterwork is a project that is conceived, proposed, organized and executed solely by the student for the equivalent of a full course credit during the student's senior year at Green Fields. Each Masterwork must satisfy three criteria: focus on a particular passion the student wishes to explore; challenge the student beyond what he or she has previously experienced; put into practice various skills learned throughout the school. Each Masterwork requires an advisor who is not also a member of our faculty. This is to encourage students to discover the extent to which learning is larger than our campus. Each project is regularly reviewed and ultimately evaluated by a Masterwork committee comprised of the Head of School, Upper School Principal, Masterwork Coordinator and a faculty member of the student's choice. This is a voluntary program designed to take the place of a full course senior year.

## **2009-2010 COURSE OFFERINGS**

(Course descriptions are subject to change.)

### **ENGLISH DEPARTMENT**

English courses at Green Fields Country Day School are designed to meet three objectives: (1) to teach reading with maximum comprehension so that students may meet the challenge of whatever other academic studies they may pursue, and of whatever career choices they may eventually make; (2) to develop clear, effective expression in both written and spoken English; (3) to provide an introduction to the broad cultural heritage of literature and to techniques of literary analysis. All levels of English may require outside reading of at least one book per quarter in addition to regular course work, with emphasis on reading for pleasure, for information, and for expanding awareness of self and of the world in which we live. Summer reading is required for all courses. Courses in the English Department should be taken in sequence; transfer students to 10th or 11th grade generally begin with Literature and Writing.

#### **Forms in Literature**

1 credit

This course introduces students to interpretive thinking and analytical writing skills by focusing on literature. The emphasis, throughout the year, is to move beyond the exposition of literature based on a sense of plot, character, setting, and theme to the significance of these elements and how they work within the text. Students work with the epic, the short story, the novel, poetry, and drama. To broaden understanding of literary traditions, students are introduced to Greek mythology through Homer's *Odyssey* and the Arthurian legends through T. H. White's novel, *The Once and Future King*. There are wide-ranging discussions of many literary elements and extensive written assignments of formal, informal, research and creative approaches.

Texts: *Adventures in Appreciation* (Holt, Rinehart, Winston); *The Odyssey*; *The Once and Future King*

#### **Literature and Writing**

1 credit

This class builds upon the interpretive reading and writing skills introduced the previous year. Students are asked to exercise a high level of intellectual creativity, analysis, and discipline in the context of both class discussion and formal essay assignments. This class is oriented to a motif or theme: the idea of "initiation" in literature. Each of the core novels discussed this year, from *The Catcher in the Rye* by Salinger to Twain's *The Adventures of Huckleberry Finn*, reflects in some way a "passage" into the complexities of the world. Written work will include several papers, of both a formal and informal style. SAT vocabulary and SAT essay preparation are also emphasized.

Texts: *Literature: Structure, Sound, and Sense* (Harcourt Brace); *The Catcher in the Rye*; *The Adventures of Huckleberry Finn*; *The Awakening*; *Hot SAT Words*; *When the Legends Die*; *Macbeth*

#### **American Literature**

1 credit

This course focuses on the central theme and special character of American writing within the context of historical and cultural development. Students read from such "classic" and traditional voices as Emerson, Hawthorne, Thoreau, Poe, and Melville as well as a range of poets from Dickinson and Whitman to Frost, Eliot, Sexton and Swenson, to key modern voices like those of Fitzgerald, Cather, and Didion. Complex literary analysis is regularly emphasized in written and oral presentation. In addition, portions of the class are devoted to vocabulary work and SAT preparation skills. The central goal of the course is the fostering of students to use tools of critical analysis in their reading and writing about literary works. (Successful completion of the course provides significant preparation for taking the AP English Literature Exam.)

Texts: *Norton Anthology of American Literature* (Scott, Foresman); *My Antonia*; *The Great Gatsby*; *The White Album*; and a Melville novella

### **British Literature**

1 credit

This course presents a broad understanding of the development of British Literature from Anglo-Saxon to modern writers. The chronological presentation of the material makes possible instruction relating both language and literature to their historical and social context. British poetry is read carefully in a technical sense as well, and emphasis is placed on the finer points of versification. It is expected that students will already have a working command of grammatical skills, so composition is taught primarily in its rhetorical aspects. Some advanced research skills are used, and the use of the University of Arizona library is encouraged in the writing of a required critical analysis paper on a literary subject. (Successful completion of the course provides significant preparation for taking the AP English Literature Exam.)

Texts: *Norton Anthology of English Literature*; *Grendel*; *Mayor of Casterbridge*; *Hamlet*; *Brave New World*

### **Advanced Placement English Literature and Composition**

1 credit

This course will engage students in the careful reading and critical analysis of imaginative literature. Through the close reading of selected texts, students should deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. Students will consider a work's structure, style, and themes, as well as elements such as the use of figurative language, imagery, symbolism, and tone. The course will include intensive study of representative works from various genres and periods. The reading will emphasize breadth and depth, building upon reading done in previous English courses. Writing will include responses and reaction papers along with making and explaining judgments about a work's artistry involving analysis, interpretation, and argument. During the second semester, each student is expected to read a **substantial** body of work by one American or British author, to read literary criticism on the works both online and at the University of Arizona library, to give a seminar presentation to the rest of the class, and to write a paper of approximately 2500 words reporting the interpretation of his/her work. Students must receive credit for both semesters of this course and take the Advanced Placement English Literature and Composition Exam to receive AP credit. Serious summer reading, in addition to the required selections, is encouraged to provide background knowledge in Biblical literature and Greek and Roman mythology.

Texts: *Norton Anthology of English Literature*; *Norton Anthology of American Literature* (students already have this text); *Norton Edition of Hamlet*; *Grendel*; *The Mayor of Casterbridge*; *One Hundred Years of Solitude*; *Their Eyes Were Watching God*

### **Creative Writing**

.50 credit

This is a one-semester course with writing opportunities in poetry, fiction, and critical non-fiction writing. Approximately half of the course will require responses to assigned "approaches" with the remainder allowing for student "personal" interests. The class is student centered and "workshop" directed, requiring the sharing of the created texts in a supportive yet critical atmosphere. This class is limited to twelve students with a focus on 11th and 12th graders (10th graders may be admitted by special application). It is the expectation that student work from this course will be submitted to PRISM, the Green Fields literary publication.

### **Connections**

.50 credit

This semester elective course is intended to supplement and expand curriculum offerings in English and/or Social Studies for older students interested in increasing their critical thinking and analytical skills. The course is designed as a transitional class to help students to begin to experience the rigors of a college seminar approach and contains elements of philosophy while it draws on artistic, cinematic, and musical elements along with its literary base. Among the writers often included in the reading list are Shakespeare, Conrad, Kafka, Camus, Salinger, Merwin, and Sexton.

Possible selected texts: *The Book of Job*; *The Republic "Apology"*; *Nine Stories*; *Exile and the Kingdom*; *Heart of Darkness* and many others.

## **SOCIAL STUDIES DEPARTMENT**

The curriculum of the Social Studies Department seeks to achieve several goals. First, it strives to provide for a sequential development of skills necessary for more advanced work in the social studies. Second, the curriculum is designed to develop information processing skills—drawing inferences, comparing and contrasting, classifying, hypothesizing, generalizing and interpreting. Third, our courses seek to develop students' procedural skills in the social studies by using references, recognizing primary and secondary sources, using maps, graphs, visual aids, tables, timelines, and computer resources. Finally, our courses attempt to impart a body of knowledge to our students about the world in which they live through historical, social, political, intellectual, and economic perspectives. Through all our courses we hope to develop an appreciation for social studies as a useful guide to

understanding human behavior and as a means of acquiring cultural awareness. In this way, we are confident that the end result will be a student with the intellectual tools, sensitivity, tolerance, and knowledge to become a participating member of our society.

### **World History**

1 credit

This one-year freshman survey course covers world history from the ancient world to the early Renaissance. In the process of illuminating the major events of the human experience, this course promotes global responsibility and understanding, as well as social justice and an appreciation for diversity and multiculturalism. This course addresses the political developments, scientific and technological advancements, and cultural changes (artistic, philosophical, literary, musical and religious) through history. Time is devoted to geography, international current events and a focus on our place in society. Written assignments in the form of essays, book reports, personal response and reflection, research papers, and cooperative learning projects are emphasized.

Text: *World History: Connections to Today* (Prentice Hall)

### **European History**

1 credit

In this one-year course students will study the chronology of European history from 1450 to the present. Particular attention is paid to major recurring themes and issues. Emphasis will be given to the development of students' ability to analyze and express themselves through written expression of ideas. Additionally, the curriculum includes the study of current affairs, economic issues and the geography of the regions. Students will study readings from primary sources and historiography. A research paper on an approved topic is required.

Text: *World History: Connections to Today* (Prentice Hall)

### **U. S. History**

1 credit

In this one-year course, the complete chronology of the history of the United States is covered. Particular attention is paid to major recurring themes and issues. Students will study current affairs, economics, and political and social trends. In addition to the textbook, students will have extensive readings from primary sources and historiographies. A research paper on an approved topic is required.

Text: *The Enduring Vision* (Houghton Mifflin) 5<sup>th</sup> ed.

### **Advanced Placement U.S. History**

1 credit

This one-year course is intended for qualified students who wish to complete studies equivalent to a college introductory U.S. History survey course. It is designed to provide students with analytic skills and factual knowledge necessary to deal critically with historical themes. A complete chronology of U.S. History will be covered. Students will also study current affairs. A research paper will be required. Students receiving AP credit must fulfill the following requirements:

- a. Successful completion of both semesters of U.S. History
- b. Mandatory attendance at extra class sessions (to be determined)
- c. Completion of the Advanced Placement U.S. History Examination in May

Text: *The Enduring Vision* (Houghton Mifflin) 5<sup>th</sup> ed.

### **United States Government and Politics**

1 credit

Students will become familiar with both the formal structure of our U.S. Government and how our process works behind the scenes. Political philosophy, the modern democratic election process, U.S. foreign affairs, and U.S. practices in both the national and global economies will be studied. Attention also will be given to significant legal decisions and cases adjudicated on issues of civil liberties and civil rights.

Text: *American Government: Institutions and Policies* (Houghton Mifflin) 9<sup>th</sup> ed.

### **Advanced Placement Government and Politics**

1 credit

With completion of additional work in U.S. Government and Politics, students will receive an AP designation on their transcript. Students receiving AP credit must fulfill the following requirements:

- a. Successful completion of both semesters of U.S. Government and Politics.
- b. Mandatory attendance at extra class sessions (to be determined)
- c. Completion of the Advanced Placement U. S. Government and Politics Examination in May.

Texts: *American Government: Institutions and Policies* (Houghton Mifflin) 9<sup>th</sup> ed.

## **MATHEMATICS DEPARTMENT**

The Green Fields Country Day School mathematics program provides the student with general math skills upon which, through the sequence of courses, the student learns the interrelation between the various disciplines of

mathematics. Students who complete the entire course of study will be well prepared for entry at a high level of college mathematics. Courses should be taken in sequence. Students who complete Algebra 210 in middle school are required to take four more years of math in upper school. The student with a strong math aptitude, and those pursuing math/science-oriented careers, should conclude the upper school math sequence with the calculus course.

### **Algebra**

1 credit

This course provides the fundamentals of a standard algebra course with emphasis on polynomials, exponents, factoring, solving equations, inequalities, fractional expressions, radical expressions, quadratic equations, sets functions, relations and graphing of linear equations. This class is required for graduation.

**Pre-requisite:** Transitional Math (Pre-algebra)

Text: *Algebra* (Scott Foresman, Chicago Series) 2<sup>nd</sup> ed.

### **Geometry**

1 credit

This course includes the study of parallel lines, congruent triangles, polygons, right triangles, circles, and constructions. The course introduces proofs with definitions, postulates, and theorems used to construct two column proofs. A brief introduction to coordinate and transformational geometry that relates the concepts of geometry to previously learned algebraic concepts is also included in the curriculum. This class is required for graduation.

**Pre-requisite:** Algebra

Text: *Geometry* (Scott Foresman, Chicago Series) 2<sup>nd</sup> ed.

### **Advanced Algebra**

1 credit

This course builds upon the concepts covered in the first year Algebra course, such as polynomials, linear and quadratic equations, inequalities, fractional expressions, exponents, and word problems. Additional concepts covered are the use of quadratic formula, graphing of parabolas, and introduction to trigonometry. The text for this course provides regular review of past concepts in order to enhance students' problem-solving abilities. This class is required for graduation.

**Pre-requisite:** Geometry

Text: *Advanced Algebra* (Scott Foresman, Chicago Series) 2<sup>nd</sup> ed.

### **Function, Statistics, and Trigonometry**

1 credit

This class will cover in-depth transforming of raw data into functions for mathematical modeling. We explore trigonometric functions, quadratic and circular functions, probability, sequences and series, matrices, binomial and normal distribution, parent functions and their graphs. This class will prepare students for Physics, Engineering, or any class where they must take raw data and analyze it. This course is required for graduation.

**Pre-requisite:** Advanced Algebra

Text: *Function, Statistics, and Trigonometry* (Scott Foresman, Chicago Series) 2<sup>nd</sup> ed.

### **Pre-calculus and Discrete Math**

1 credit

This class will cover advanced topics in math such as logic, polynomial and rational functions, polar coordinates, complex numbers and combinations. This class will prepare students for college math in the areas of study such as calculus, physics, engineering, and accounting.

**Pre-requisite:** Function, Statistics, and Trigonometry

Text: *Precalculus and Discrete Mathematics* (Scott Foresman, Chicago Series) 2<sup>nd</sup> ed.

### **Function, Statistics and Trigonometry/Precalculus**

1 credit

This course is designed to bridge the gap from advanced algebra to calculus in one year. Students in this class work at an accelerated pace. The focus of the class will be on the analysis of polynomial, rational, exponential, logarithmic and trigonometric functions. It is the expectation that students taking this course will enroll in Advanced Placement Calculus AB the following year.

**Pre-requisite:** grade of B+ or higher in Advanced Algebra, or a B+ or higher on the semester exams in

Advanced Algebra, or an 85% or higher on the math portion of the CTP Test, or by teacher recommendation.

Texts: *Functions, Statistics and Trigonometry* (Scott Foresman) 2<sup>nd</sup> ed.; *Precalculus and Discrete Math* (Scott Foresman) 2<sup>nd</sup> ed.

### **Advanced Placement Calculus AB**

1 credit

This course is designed for prospective mathematics majors, as well as students who may be interested in engineering, physics, chemistry, business, social sciences, or non-technical fields. The course begins with a thorough review of functions, preparing students for the two major parts of the class: differentiation and integration, and their applications in real-world situations. Applications include optimization, sketching graphs, related rates, area,

volume, work, and solids of revolution. This course is offered only to 12th grade students or to students with the permission of the Math Department. It is the expectation that students taking this course will take the Advanced Placement AB Calculus exam in May.

**Pre-requisite:** Pre-calculus and Discrete Math or FST/Pre-calculus  
Text: *Calculus* (McGraw Hill) 2<sup>nd</sup> ed.

## SCIENCE DEPARTMENT

The objective of the Science Department is to develop the students' skills of observation, evaluation and understanding of the physical, chemical and biological world. The department seeks to expand student horizons beyond the classroom through the use of projects and through teaching the scientific method of problem solving. It is recommended that students take a science course each high school year. Realizing that many students have varying proficiencies in math, individual progress through the science courses will be staged in such a way that the student's math skills will be at an adequate level to do the required math applications in each course. **It will be expected, however, that by the end of the sophomore year, all students will have taken two lab courses that will consist of Biology and a physical science course (Conceptual Physics or Chemistry).** When making course selections in the sophomore year, be sure to consider the pre-requisite for the various elective courses at the Junior and Senior grades. Certain courses are offered only in alternate years and should be taken in the last two years of high school after fulfilling the prerequisite requirements.

### Biology

1 credit

This course is directed toward achieving an understanding of the balance between the diversity and the unity of living things. The format follows an ecological approach to the study of life. Topics of study include ecology, cell biology, genetics, evolution, invertebrate, vertebrate, and human anatomy and physiology and animal behavior. In addition, this course allows students to perfect their understanding of the scientific method and introduces them to instrumentation.

Text: *The Dynamics of Life* (Glencoe/McGraw Hill); *Lab Manual for Dynamics of Life* (Glencoe/McGraw Hill)

### Conceptual Physics

1 credit

Conceptual Physics builds knowledge and understanding through a sequence of qualitative studies of the basic concepts of physics. In the laboratory, exploratory activities introduce students initially to the concepts; then quantitative experiments reinforce these concepts. Laboratory and lecture material coincide to develop a conceptual and mathematical understanding of common physiological phenomena. This course satisfies the University Regents' requirement in physical science.

**Pre-requisite:** Completion of or current enrollment in Advanced Algebra  
Text: *Conceptual Physics*, Third edition (Addison Wesley Longman).

### Chemistry

1 credit

This laboratory course deals with the chemical and physical properties of matter. Topics highlighted include atomic theory, kinetic theory, mole concept, stoichiometry, chemical formulas, bonding and molecular structures, gases, acids and bases, and properties of solutions. This course emphasizes the understanding of the mathematical concepts needed for chemical calculations.

**Pre-requisite:** Advanced Algebra (Student must have completed/be currently enrolled)  
Texts: *Chemistry: Matter and Change* (Glencoe/McGraw Hill)

### Advanced Placement Chemistry

This course serves as an extension of Chemistry and is designed to be the equivalent of a general chemistry course typically taken in the first year of college. The syllabus is designed by the College Board. Students who take this course are expected to take the AP Chemistry examination in the spring. Beginning with a fast-paced, comprehensive review of the concepts and methods covered in the Chemistry, AP Chemistry delves into more advanced topics including thermochemistry, reaction rates, chemical equilibrium, redox reactions, electrochemistry, organic chemistry and nuclear chemistry. The laboratory component of AP Chemistry constitutes a significant portion of the course and is intended to familiarize students with experimental methods and to reinforce the concepts presented in the lecture.

**Pre-requisites:** A grade of "B" or higher in Chemistry, Advanced Algebra  
Text: *Chemistry: Matter and Change* (Glencoe/McGraw/Hill)

### **Advanced Placement Biology**

1 credit

This second-year biology course takes the student on an evolutionary path from the molecular basis of life to the complicated relationships in our biosphere. Molecular and cell biology, plant and animal physiology, developmental biology, biochemistry and microbiology represent a sampling of the subjects covered. The students learn to ask questions and evaluate data collected from laboratory work. More emphasis is placed on laboratory analysis and evaluation than is experienced in first-year biology. Students who enroll in this course are required to take the Advanced Placement Examination and will thus receive AP credit for this course. This course meets for two periods.

**Pre-requisites:** Biology, Chemistry

Text: TBD

### **Advanced Placement Physics**

1 credit

Advanced Placement Physics (B) is an algebra-based university-level course in general Physics. Its syllabus is designed by the College Board. It is equivalent to an introductory algebra-based university-level physics course. This course will be covered in two semesters. Laboratory work is an integral part of this course. Topics of study include: Newtonian Mechanics; Fluid Mechanics and Thermal Physics; Electricity and Magnetism; Waves and Optics; and Atomic and Nuclear Physics.

**Pre-requisites:** Conceptual Physics, Advanced Algebra

Text: *Physics: An Incremental Development* (Saxon Publishing)

### **Advanced Placement Environmental Science**

The year-long AP level course is the equivalent of a one-semester college course in environmental science. The goal is to provide students with the scientific principles, concepts, and methodologies required to understand the inter-relationships of the natural world, to identify and analyze environmental problems, to evaluate the risks associated with these problems, and to examine the solutions for resolving and preventing them. There is a strong laboratory and field investigation component to this course. Topics include, but are not limited to, earth resources, populations, land and water use, energy consumption, pollution, and global change.

**Pre-requisite:** Algebra, Biology and Chemistry

Text: *Environmental Science, Earth as a Living Plant*, Sixth edition (Botkin and Keller)

### **Anatomy & Physiology**

1 credit

This introductory course will cover all the fundamentals of human anatomy. Comprehensive units cover support and movement, integration and coordination, transport, absorption and excretion, and the human life cycle. Laboratory work is extensive and includes computer-based physiological simulations as well as biological dissections in order to gain a better understanding of the anatomy. This course is strongly recommended for students who may pursue college degrees in the life sciences, medicine, physical therapy, or sports medicine.

**Pre-requisite:** Biology, Chemistry

Text: *Hole's Human Anatomy and Physiology*

Laboratory manual: *Laboratory Manual for Hole's Anatomy and Physiology*, study guide highly recommended

### **Astronomy**

This course introduces students to the forefront of modern astronomical, astrophysical and cosmological topics of research through a rigorous historical development. Topics covered include the formation and properties of planets, stars, solar systems, galaxies, exotic compact objects including neutron stars, pulsars, magnetars and black holes. In addressing those subjects, the course segues through topics from nuclear physics and nuclear chemistry, Einstein's general theory of relativity, Big Bang cosmology, high energy particle physics and quantum mechanics. Students taking this course learn to use a telescope and to visually identify stars, planets and constellations. In addition, the course covers elements of celestial navigation and archeoastronomy. Each topic is first presented conceptually and then developed mathematically.

**Pre-requisite:** Conceptual Physics

Text: TBD

## **FOREIGN LANGUAGE DEPARTMENT**

The objective of the Foreign Language program is to develop competency and fluency in Spanish or French. Classes will be conducted in Spanish or French and whenever possible will serve as a mode of communication outside the classroom. This program will also include cultural enrichment by pointing out the different ways of experiencing the world found in Hispanic and French cultures. (Advanced Placement classes--Spanish V and French V--will be offered contingent upon adequate enrollment. If courses cannot be made available, alternate recommendations for continuing study will be discussed.)

## French Course Offerings

### **French I** (not offered every year)

1 credit

This first-year course introduces students to French using foundational vocabulary and basic structures in the present and near future tenses. Equal emphasis is placed on aural comprehension, speaking, reading and writing. Cultural learning takes place through a variety of activities, films, music and readings.

Text: *Allez, Viens! Level I* (Holt Rinehart & Winston); *Cahier d'Activites I*

### **French II**

1 credit

This intermediate course further develops understanding, speaking, reading, and writing French. Lessons emphasize foundational and communicative vocabulary and introduce intermediate grammar structures such as the passé composé, l'imparfait, and object pronouns.

**Pre-requisite:** French I or French A and B

Text: *Allez, Viens! Level II* (Holt Rinehart & Winston); *Cahier d'Activites II*

### **French III**

1 credit

This course develops more in-depth French grammar, conversation, composition, and reading skills. Grammar includes treatment of le conditionnel, le subjonctif, and expressing more nuanced opinions and ideas. Film, music and continued study of Francophone cultures combine with an introduction to Francophone literature as the cultural component of this course

**Pre-requisite:** French II

Text: Text: *Allez, Viens! Level III* (Holt Rinehart & Winston); *Cahier d'Activites III*

### **French IV**

1 credit

This advanced course continues work on all foreign language skills with increased emphasis on perfecting grammar, compositional writing and reading comprehension. Students read a variety of short stories, one novel and selections from current media sources. Viewing and critiquing French films comprises one cultural component of French IV.

**Pre-requisite:** French III

Texts: *Sur le Vif* (Heinle & Heinle), *Cahier – Sur le Vif, Le Petit Prince, Le Compagnon du Petit Prince*

### **French V**

1 credit

A highly advanced course for students of French who do not wish to take the AP French Exam; French V focuses on perfecting grammar exercises, readings and speaking skills. A variety of grammar exercises, readings and films are the basis for advanced conversation and composition. May be combined with AP French V.

**Pre-requisite:** French IV

Text: *Une fois pour toutes* (Sturges et al.)

*AP French: Preparing for the Language Examination* (Foresman/Wesley); one novel to be determined

### **Advanced Placement French V**

1 credit

This course prepares students for the Advanced Placement French Exam by honing and perfecting skills in grammar, compositional writing, reading and speaking. A variety of grammar exercises, readings and films are the basis for advanced conversation and composition.

**Pre-requisite:** French IV

Texts: *Une fois pour toutes* (Sturges et al.)

*AP French: Preparing for the Examination* (Foresman/Wesley); one novel to be determined

### **Advanced Placement French Literature**

1 credit

This course is offered for seniors who have already taken and passed the AP French Language Examination with a score of 3 or higher. This course is usually given as an independent study and its content is derived from the current AP French Literature reading list.

**Pre-requisite:** AP French V

Texts: *to be announced*

## Spanish Course Offerings

### **Spanish I**

1 credit

This first year course introduces students to Spanish in a formalized yet communicative manner. Equal emphasis will be given to the four basic skills of comprehension: listening, speaking, reading and writing. Cultural learning is ongoing through a variety of activities, videos, music and reading.

Text: ¡En Español! 1 (McDougal Littel); *Cuaderno Más Práctica*

### **Spanish II**

1 credit

In this first intermediate course, attention is given to increasing grammatical structures including vocabulary and gaining more control over the material covered in Spanish I. Fluency of speech and use of additional verbal skills are stressed. Cultural learning takes place through a variety of activities, films, music and readings.

**Pre-requisite:** Spanish I

Text: ¡En Español! 2 (McDougal Littel); *Cuaderno Más Práctica*

### **Spanish III**

1 credit

Continued work at this intermediate level includes grammar, correction of remaining deficiencies, and still wider fluency through intensive work with short stories.

**Pre-requisite:** Spanish II

Texts: ¡En Español! 3 (McDougal Littel); *Cuaderno Más Práctica*

### **Spanish IV**

1 credit

The first half of this course stresses grammar and a more fluent and sophisticated development of writing and speaking skills. The second half introduces students to Spanish literature and to a variety of authors and genres with primary attention given to the modern period. Students who complete this course with a grade of A or B are encouraged to take the Achievement Test in Spanish language.

**Pre-requisite:** Spanish III

Texts: *Album (D.C. Heath & Co.)* 3<sup>rd</sup> ed.; *Hablando de Cine: Conversacion Avanzada* (Underwood, John H)

### **Advanced Placement Spanish V**

1 credit

This course in advanced Spanish literature and culture is a continuation of Spanish IV. In addition, it will offer students the opportunity to follow current events in the Hispanic world. Students who complete this course are expected to take the Spanish Language Advanced Placement Examination and will receive AP credit.

**Pre-requisite:** Spanish IV

Texts: *AP Spanish: Preparing for the Language Examination* (Diaz, Leicher-Prieto, Nadelbach); *Como Agua Para Chocolate* (Esquivel, Laura); *Hablando de Cine: Conversacion Avanzada* (Underwood, John H.)

## FINE ARTS DEPARTMENT

This department offers courses in the visual arts, drama, and music. The fine arts program at Green Fields is designed to provide a wide variety of experiences in all areas of fine arts and meets these important objectives: 1) to provide skills for reaching an appropriate level of aesthetic experiences and performance; 2) to provide an opportunity for working together and promoting positive group interaction; 3) to provide an understanding and enjoyment of art forms within historical and cultural contexts; and 4) to enhance communication skills by providing ways to convey and express ideas and feelings.

## Visual Arts Course Offerings

### **Visual Elements I**

1 credit

This course focuses on the study of the elements and principles of art related to the two-dimensional and three-dimensional processes. The curriculum covers work with the following mediums: drawing, painting, printing, ceramics and photography. Observational drawing exercises are required each week as homework. Verbal and written work including interpretation and visual analysis of various art periods are required. Students enrolled in this class must be available to work on preparation for the spring art show.

### Visual Elements II

1 credit

This class is a continuation of visual analysis of the elements of art with the addition of personal expression of ideas and concepts. Observational drawing exercises are required each week as homework. Verbal and written work including interpretation and visual analysis of contemporary artists and trends are required. Students enrolled in this class must be available to work on preparation for the spring art show.

### Advanced Art

1 credit

In this course students are expected to have a personal commitment to a visual idea and particular mode of work. The emphasis is on the expressive qualities of art related to the feelings and ideas of each artist. This course may be taken in the junior and senior year for elective credit. Advanced students who wish to prepare their portfolios for admission to art school may work in any media under the direction of the art teacher. Observational drawing exercises are required each week as homework. Verbal and written work including interpretation and visual analysis of one's own work and the work of peers is required. Students enrolled in this class must be available to work on preparation for the spring art show.

**Pre-requisite:** Visual Elements I & II

### Advanced Placement Studio Art

1 credit

The student taking this course prepares a portfolio to be submitted for evaluation by the Advanced Placement committee. AP artwork should reflect quality, concentration and breadth. This course is intended for highly motivated students who are seriously interested in the study of art. It requires a significant commitment of time and effort. Time spent outside of class on homework should equal, at the least, the four hours of time spent in class.

**Pre-requisite:** Advanced Art and recommendation

## Theater Arts Course Offerings

### Art of Acting

1 credit

In this course students work on basic acting techniques through a variety of theater exercises, games, scripted and original material. The focus of this class is on building the skills of the individual actor and the ensemble. Emphasis is placed on interpreting dramatic material and the character's intentions through the effective use of the actor's voice, body, imagination and concentration.

### Advanced Drama

1 credit

This course continues to build on the insights and techniques studied in the Art of Acting class. Students have a chance to more fully integrate imagination and intention into their voice and movement. The emphasis is on performance and developing techniques for preparing a role. Students take part in selecting plays, rehearsing and performing each semester. **While most rehearsals take place during class or immediately following school, students must be available for some evening and weekend rehearsals.** This course may be repeated for elective credit.

**Pre-requisite:** Art of Acting. Experienced actors may audition for this class.

## Music Course Offerings

### Mixed Chorus

1 credit

Mixed chorus is open to boys and girls. The music for this group is sung in four-part harmony, with emphasis placed on sight-reading and vocal skills. Students perform a variety of musical selections in concerts each semester. The cast for the spring musical is selected primarily from the mixed chorus. This course may be repeated for elective credit.

### Music Theory and Composition

1 credit

First semester Music Theory and Composition is a pre-college level music theory course which is a continuation of the skills taught in eighth grade music. The fundamentals of scales, intervals, keys, triads, rhythm and meter are covered as well as listening skills. Second semester students apply the skills and concepts acquired to the art of composition. Students use new music theory knowledge to create original music. Students must have taken eighth grade music at Green Fields and be studying an instrument.

**Pre-requisite:** Eighth Grade Music and must be taking private instrumental music lessons

### AP Music Theory (not offered 2009-10)

1 credit

This course begins with a review of the fundamentals of music theory. Students are expected to have a firm knowledge of scales, intervals, keys, triads, rhythm and meter in order to advance their skills to voice leading, part

writing and the basic concepts of harmonic progression. This is a college level course and is designed to prepare students to take the music theory Advanced Placement test in May.

**Pre-requisite:** Music Theory and Composition

## TECHNOLOGY

No other area changes as quickly as technology. This is true not only of technology at Green Fields, but how technology is used academically worldwide. The necessity for flexibility and fluidity in addressing basic technology needs as well as standards and measurement of information literacy is mandated. The ongoing development of technology goals for Green Fields are based on the need for fluidity and future vision as students enter the school with increasingly sophisticated skill sets. The core of upper school computer-based technology remains intelligent web-based research in support of core curricular areas as well as the ability to use more sophisticated application components of word processing, database searching and style sheets in the production of papers and presentations. Students work with the librarian and instructors to thoughtfully integrate computer based components into a skill-based foundation for their areas of study. Library and lab computers feature up-to-date standard and advanced software applications as well as high-speed Internet access. Students with wireless laptops enjoy the freedom of multiple access points across the campus and need not be tethered to the desktop.

### **Media Arts**

1 credit

This challenging elective course explores the union of dynamic content web design and programming in the creation of interactive media, both online and as standalone presentations (DVD, CD etc.) Students explore and learn tools and techniques to create individual websites and multimedia projects. The following concepts are investigated: CSS styles, open source PHP programming modification, design elements, aesthetics and protocols, digital photography and editing, audio and video creation and editing. A variety of software is employed to create, edit and broadcast student work. Students also become familiar with hardware, networks and peripherals.

## PUBLICATIONS

Publications courses provide practical and theoretical experience for those students interested in learning writing, computer, photographic, and artistic skills. Students have the opportunity to assume different positions on each of the publication staffs.

### **Journalism**

1 credit

In this course students learn the elements of journalism: media history; ethics; editorial planning; interviewing; researching; news, feature, editorial, entertainment and sports writing; editing; and newspaper design. Students become proficient in word processing, layout and design software (InDesign and Illustrator) and photographic hardware and software (flatbed scanners, digital cameras, PhotoShop). Students provide stories for publication in the school newspaper, *The Voice*, and assist during production deadlines

### **Advanced Journalism**

1 credit

Students interested in advancing their writing, reporting and design skills and producing Green Fields' newspaper, *The Voice*, may enroll in Advanced Journalism. Advanced students provide stories for publication in the school newspaper and must be available to meet after school and on weekends to meet publication deadlines.

### **Yearbook**

1 credit

This class produces the school yearbook, *Gorefox*. Students become proficient in word processing, layout software (Page Maker), photography (cameras, flatbed and negative scanners), and photographic software (Photo Shop). Students use the principles of design and journalism in creating copy and spreads. Students must apply to become a staff member. Recommended qualities are: writing skills, self-organization, and the ability to work as a team member. Students must be available to meet after school and on weekends to meet publication deadlines and to attend AIPA workshops.

### **Prism**

.25 credit

The *Prism* staff screens, selects, and edits art and literature submitted to the school's literary magazine. Students also design, lay out, and prepare pages for printing. Students must apply to work on this staff. Successful applicants will demonstrate 1) serious interest in producing a consistently high quality magazine; 2) willingness to work during lunch, after school, and on weekends during April and May; 3) fairness and team spirit and taste and judgment in evaluating the work.

## OTHER ELECTIVE OPPORTUNITIES

### **Drama Aide**

.25 semester credit

Drama aides assist with various tasks in classes for grades 4-8, including working with small groups and providing technical, costume, and make-up assistance. Aides are evaluated and receive pass/fail credit.

### **Library Aide**

.25 semester credit

Library Aides assist with a variety of tasks, including processing new books; shelving library materials; checking books out; designing displays; helping students and teachers use the library for research, including assisting with Internet and CD-Rom searches; and troubleshooting minor computer and AV equipment problems. This course is open to students in grades 8 through 12 with a C average or better. Pass/fail credit is awarded.

### **Office Aide**

.25 semester credit

Office aides assist in administration with a variety of tasks, including preparing mailings, photocopying, filing, and running errands on campus. A cheerful, helpful, and flexible disposition is required. Individuals receive a pass/fail credit.

### **Visual Art Aide.**

.25 semester credit

Visual art aides assist in art classes for grades 4-8. Tasks include organizing and preparing materials, assisting younger students with the processes and projects on which they are working, cleaning and storing materials at the end of class, taking inventory as needed, and providing other assistance as required for special fine arts events. This course is offered as an art elective for pass/fail credit.

### **Technology Aide**

.25 semester credit

Students serving as aides are trained to troubleshoot a variety of problems on either the Mac or PC platform. They comprise a group that can be called upon to do a variety of tasks, some of which may include: loading and previewing software, running diagnostics, doing backups, clearing printer jams, setting up equipment or updating virus definitions. Students provide service to the computer labs, library and individual teacher workstations and receive pass/fail credit.

### **Independent Study**

.50 semester credit

Students who have completed all the required courses to satisfy their graduation requirements and who wish to pursue a course of study in a particular subject area, may petition to pursue independent study. The student will need to request a faculty advisor and develop an outline of the course of study with the advisor. A written proposal in outline form must be submitted to the faculty advisor and the Principal for approval. An independent study is graded on a pass/fail basis and .50 credit is awarded for completion of the work over a semester. The faculty advisor is responsible for meeting with the student once a week to assess the student's progress and completes a student progress report and final assessment each semester.

### **Senior Masterwork Program**

1 credit

The Senior Masterwork is a project that is conceived, proposed, organized and executed solely by the student for the equivalent of a full course credit during the student's senior year at Green Fields. Each Masterwork must satisfy three criteria: focus on a particular passion the student wishes to explore; challenge the student beyond what he or she has previously experienced; put into practice various skills learned throughout the school. Each Masterwork requires an advisor who is not also a member of our faculty. This is to encourage students to discover the extent to which learning is larger than our campus. Each project is regularly reviewed and ultimately evaluated by a Masterwork committee comprised of the Head of School, Upper School Principal, Masterwork Coordinator and a faculty member of the student's choice. This is a voluntary program designed to take the place of a full course senior year.