

## **THE SOPHOMORE CURRICULUM FOR THE 2008-09 ACADEMIC YEAR (dated 5/1/08)**

(Please note that courses offered are dependent upon student enrollment and staffing.)

The core curriculum for sophomores consists of:

- English II or Honors English II (with permission);
- World History II and/or AP European History (with permission);
- the appropriate math course;
- the appropriate level of a foreign or classical language; and
- Biology, Chemistry or Honors Chemistry.

Since sophomores are required to carry 6 credits, they may also choose from the following list of electives:

### **CLASSICAL LANGUAGE**

**Classical Mythology** (semester elective)

This class is an introduction to the primary characters and most important stories of Greek and Roman mythology. Following the text of H. A. Guerber, this course covers the Greek concept of creation and the main Greek and Roman gods, including Zeus, Hera, Athena, Poseidon, Apollo, Ares, and Aphrodite. Next, Greek Heroes such as Hercules, Perseus, Theseus, and Jason are discussed; the course finishes with the Trojan War. Contemporary films and documentaries complement classroom discussion and readings.

### **COMPUTER SCIENCE**

Note: You may only take any computer science elective once.

**Computer Concepts** (semester course required for graduation unless student takes Introduction to Programming)

This course is a single semester introduction to the fundamental ideas of computers. It covers the components of a computer system, application software, input, output, and storage devices, as well as operating systems. Additionally, students gain a basic knowledge of the electronics of a computer system. All of this is accomplished using the textbook, interactive CDs, classroom discussions and demonstrations, and a hands-on circuitry kit.

**Game Development** (semester elective)

For the first time, gaming has driven the development of the latest microchips, taking over from Defense. The game industry is a multi trillion dollar business. This course is a single semester introduction to game development. Basic ideas like graphics, audio formats, storage, design and development are reviewed. Students create 2D and 3D games using concepts and creativity; they program using "point and click" tools. Logical programming and object oriented programming concepts are emphasized.

**Programming I** (full year course required for graduation unless student takes Computer Concepts)  
This course serves as an introduction to computer programming using several programming languages. The focus is programming in C++ and Java. Functions, loops, if-else structures, arrays are some of the topics covered. Object Oriented Programming concepts are covered via Java. Problem solving and algorithm development are emphasized throughout the year.

**Simulations** (semester elective)

Computation is used in a wide array of contexts to simulate the real world and thereby derive insight into real world problems. This course introduces students to various software packages that simulate some aspect of the world. Current software packages include: Capitalism II, which simulates the business world; Real Lives, which models the lives of people from different parts of the world; Zoo Tycoon, which challenges the students to design, build, and manage a zoo including animal behavior; and SimCity 3000, which offers a realistic 3-D environment with businesses and other facilities to control. The text, Entrepreneurship, teaches business topics in a more traditional way, and is intended to support Capitalism II.

**2D Graphics** (semester elective)

Computer graphics are employed everywhere in our world today. Movies, games, the Internet, and scientific modeling are a few such arenas. This course first introduces Adobe Creative Suite 2, a unified, industry-strength design environment with the ability to produce the next level of integration in creative software. It is used to design, create, and edit graphics, publications, and web pages. The suite consists of Adobe Illustrator CS2, used for creating illustrations, Photoshop CS2, used for photo editing, InDesign CS2, a page layout program, GoLive CS2, a publishing program to publish and manage websites, and Acrobat 7.0, a tool used for reading PDF files. The course concludes with an introduction to digital movie and video creation on a PC using Microsoft Windows Movie Maker.

**3D Animation and Architecture** (semester elective)

3-D Computer animation and architectural modeling are employed everywhere in our world today. Movies, games, the Internet, and scientific modeling are a few such arenas. This course introduces 3D animation and architectural design and modeling. Students learn the basic properties of 3D computer objects. Subsequently, they proceed to character animation and CAD (computer-aided design). The software packages for this course include: Animation Master, an industry-strength animation tool; Chief Architect, a powerful industrial software package used for architectural modeling; and Toon Boom, an all-inclusive digital animation tool.

## **ENGLISH**

**Literary Influences: The Bible as Foundational Text** (semester elective)

Do you know the story of the Prodigal Son? Why did Joseph have a coat of many colors? Would you recognize the phrase "the valley of the shadow of death"? Stories and language from the Bible are a central reference point for much of the great literature from Chaucer to the present. Major authors from Shakespeare to Faulkner had a thorough knowledge of the Bible and filled their writing with allusions to Biblical characters, stories, and phrases. Literature students who are not well-versed in this area of cultural literacy are limited in their ability to appreciate the themes and

layers of symbolism in major texts. This course will survey all the stories that are often alluded to in literature, giving students a working knowledge of characters, plots, and names that always carry symbolic weight when transferred into other literature. If you've ever felt "left out" when reading a novel, play, or political speech because the footnote about Job or Bathsheba didn't make sense, this is the course for you.

### **Myth and Legends** (semester elective)

This elective provides an overview of multi-cultural mythologies with the exception of Greek and Roman classical mythology. Ancient Egyptian, Celtic, Norse, Indian/Hindu, and other mythologies are studied. Topics to be covered include: Development and Purposes of Myth, Types of Myth, Deities and Lesser Spirits, and Mythological Heroes. Students focus their study of legends on the legend of Dracula.

### **Shakespeare: Analysis and Performance** (semester elective)

This elective allows students intrigued by Shakespeare to wallow in his language and works from both literary and dramatic perspectives. Students gain exposure to the texts through readers' theater, analyze through discussion and writing the textual intricacies that have kept scholars fascinated for centuries, research the historical and political context of Shakespeare's stories, and bring his drama to life through rehearsed scenes, soliloquies, and spoofs. This high-energy course strengthens skills in English as well as tapping into memorization and sword fighting abilities.

### **Speech** (semester elective)

In speech or forensics students learn the art and skill involved in oral presentations. Students develop self-confidence through oral presentations and in-class competition. Students learn to develop and apply criteria to evaluate, appreciate and respond to oral presentations by others. They learn to work within time constraints and thematic possibilities of selected pieces of literature. Finally, they demonstrate the ability to analyze literature and communicate their understanding through their own vocal physical expression.

## **EXPERIENTIAL AND SERVICE LEARNING**

**Leadership Studies I** (elective offered to sophomores, juniors, and seniors) (elective meets three days per week for one semester during a study hall) (pass/fail)

This course is one of the required components of a Certificate of Leadership and serves as a baseline for leadership development. The content is taught in units: Models and Methods of Leadership; Great Leaders in History; Individual Leadership Styles; Ethical Considerations of Leadership; Communication; and Practicum. The Practicum is a leadership experience that can be evaluated by an advisor to give a student direct feedback on leadership style. A full description of the Certificate of Leadership program is available.

## **FINE ARTS**

### **PERFORMING ARTS**

#### **Beginning Guitar (full year)**

This class is for students who would like to learn how to play the guitar. Students are taught the parts of the instrument, tuning, proper playing position, as well as basic chord structure. Beginning notation and rhythm reading are practiced. This class teaches students how to play in an ensemble as well as how to be a solo musician. The group performs in at least one public concert each semester.

#### **Chorus (full year)**

This active singing ensemble is for students who wish to learn and rehearse a wide variety of choral music including arrangements of folk, classical, jazz, show tunes, pop songs, and spirituals. The group performs in two concerts in the Highland Center for the Arts and also participates in a music festival in the spring, usually in D.C. Other occasions for performances include assemblies and high school graduation.

#### **Guitar Ensemble (with permission) (full year)**

This class is designed for students who have at least two years of experience playing the guitar. It gives them the opportunity to perform in an ensemble as well as offering solo opportunities. Students learn chords, notation, and other music theory concepts. Students perform in at least two public concerts during the school year. Audition for seating placement is required.

#### **Intermediate Guitar (full year)**

This class is designed for students with at least one year of guitar experience and some music theory knowledge who want to improve their skills and possibly move on to Guitar Ensemble. Students further the skills they learned in Beginning Guitar as well as learning the skills necessary to audition for the Guitar Ensemble.

#### **Jazz Ensemble (full year)**

This ensemble is for students who wish to actively participate in a performing instrumental jazz group. The main emphasis is to play musical instruments by ear, incorporating music theory into the practical playing of jazz pieces, and to develop the ability to improvise in various scales, modes, harmonies, and keys. The ensemble performs publicly at two concerts in the Highland Center for the Arts; other performances are encouraged.

### **VISUAL ARTS**

#### **Advanced Sculpture (full year)**

This course is designed for students who have completed Introduction to 3D Art; other art classes are highly recommended. Students develop skills already learned, as well as work with new media and techniques. Design elements and principles are a primary focus of the course. Students are expected to exhibit greater understanding of media and methods, and to produce more thoughtful and creative works. Projects involve additive, subtractive, and constructive methods. Students also develop ideas for projects on their own, choosing their own media and themes.

**Art II (with permission) (full year)**

This class develops drawing, painting and printmaking skills and understanding of visual language through studio instruction. The students expand upon what they know about the fundamentals of drawing, learning how to translate what they see into the elements of art (line, shape, color, texture, value, and space) and using the principles of design (proportion, perspective, and composition) to create more meaningful art. They work on projects using drawing, painting and printmaking. They also try their hand at watercolors, pastels and acrylics on paper or on canvas, prints and collages.

**Ceramics I (semester elective)**

In this introductory course, students learn methods and techniques for working with clay to create art. They explore various hand building techniques, begin to work on the potter's wheel, and discover ways to bring the two methods together in a single work. Though they spend more time on the wheel, this course serves only as an introduction to wheel-throwing. Students leave the course with a basic knowledge of clay.

**Ceramics II (semester elective)**

Students expand on their knowledge of clay in this intermediate level course after successfully completing Ceramics I. More advanced wheel techniques are taught, as well as more methods for using handbuilding techniques with wheel-thrown pieces. The primary theme of the course is combining functionality with aesthetics and design. Students are expected to work more independently and show more creativity with their pieces than in Ceramics I.

**Ceramics III (full year) (with permission)**

Students further develop their skills with clay on and off the wheel. The course focuses on improving skills and techniques already acquired and learning more advanced skills. A good understanding and application of basic wheel skills are essential in undertaking the coursework. Students assume more studio responsibilities, including recycling and preparing clay, keeping the classroom clean, maintaining an inventory of supplies, and loading and unloading the kiln. Through the skill development and added responsibilities, students learn more about continuing with pottery on their own. Work is critiqued continuously over the course by both peers and the instructor. The course concludes with a final project showing skill mastery. Juniors taking the course will prepare for an AP portfolio beginning in the spring semester.

**Digital Filmmaking I (semester elective)**

This class focuses on the basics of making short digital films from story concept to finished piece. Beginning filmmakers plan, shoot, and edit individual short film projects. The course covers story development, filmmaking technique, production workshop and computer editing. Students are required to have their own digital video cameras. Students are also encouraged to help their classmates as film crew support. Grading is based on completing film project assignments on time, periodic film production quizzes, and class participation.

**Digital Filmmaking II (semester elective)**

This course will be a continuation of Filmmaking I with more emphasis on better story development and higher production values. Students are expected to complete one film (lasting approximately 10 minutes) for the semester.

**Introduction to 2D Art** (semester elective)

Students in this class study the elements of art through a variety of materials and methods. Incorporating art history as projects are conceived, they look at the development of Modern Art as followed through the work of several influential artists. This class is about process more than production and should leave students with a foundation that will make their own work stronger as well as making them more educated viewers of other's work. Students work in a variety of media, although drawing forms the basis for this class.

**Introduction to 2D Design** (semester elective)

Students in this class study the elements of art and the principles of design through a variety of projects and drawings. This class is about process more than production and should leave students with a foundation in design that will make their own work stronger and enable them to analyze the works of others. Using a variety of media students work on design projects which deconstruct what makes an artwork successful. The projects in this class are generally more abstract than Introduction to Art.

**Introduction to 3D Art** (semester elective)

In this course, students learn methods for creating three-dimensional art work and sculpture using additive, subtractive, and constructional methods. Students explore common media associated with three-dimensional art -- their uses, procedures, and results. These include, but are not limited to, clay, plaster, foam, found objects, wood, wire, and papier mâché. Projects are based on seeing and using the third dimension and ideas that separate three-dimensional art from two-dimensional art.

**Theater Technology** (either semester)

This course examines the practical application of set and lighting design. Students are involved in the building of sets for school productions, starting with drawings, model sets and the construction of actual set pieces. Students also learn the basics of lighting and sound design, so that they can take charge of the sets, lights and sound for all drama productions and Center events. The course is taught through lecture, video and class participation. Some after-school participation may be required.

**Yearbook** (full year)

In this course, students learn aspects of yearbook journalism and graphic design while completing Highland School's yearbook. Students complete the yearbook from start to finish, beginning with fundraising and planning in the summer and ending with a published book to be distributed at the end of the school year; summer work and assignments are a course requirement. This course is very demanding of both time and effort, with many out-of-class assignments. *This course does not apply to the one year requirement of a Fine Arts class for graduation.*

**FOREIGN LANGUAGE****World Culture Awareness in the Spanish-speaking World** (semester course)

The World Culture Awareness course provides students with the tools to develop a global understanding of other cultures as preparation for the challenges of College and later life. Students'

investigations will be based around a single essential question: 'What is my place in the world?' The course covers cultural diversity, linguistic diversity, families, and political systems. Through the use of articles, editorials and movies from the Spanish-speaking worlds, students develop skills to help them consider, reflect, discuss, understand, examine, compare and build arguments. At the end of each unit, students complete a reflective project which requires them to read newspaper articles and documents, watch documentaries and movies, and meet individuals from other cultures. The curriculum incorporates elements from history, current events, literature, music and art, thus enabling students to gain a greater insight into world issues. This course does not apply to the three-year Foreign Language requirement for graduation, but it is strongly recommended for students who qualify for a language waiver or for those students who only study French.

## **LEARNING SUPPORT**

**Reading/Writing Lab** (with permission) (semester elective) ( pass/fail)

Taught by the Director of Learning Support, this course is designed for students who need additional reading and writing support in their regular English and history classes. The skills to be emphasized include note-taking, test-taking, reading with a purpose, using graphic organizers, identifying main ideas, and writing essays. To gain admittance, students may self-identify or be recommended by their humanities teachers. Students who self-identify may be asked to submit a graded writing sample and/or to schedule a brief interview with Dr. Porter.

## **PHYSICAL EDUCATION**

**P.E. 2: Cardio Training** (semester elective) (pass/fail)

The class teaches several types of aerobic exercise. All involve rapid stepping patterns, performed to music with cues provided by the instructor. Using videos and guest speakers, the course introduces aerobics, step aerobics, free style dance, line dance, and dance revolution. In each of the forms, the students learn basic steps and rhythm counting. By the end of the semester, students are divided into groups and asked to create their own routine and present it to the rest of the class.

**P.E. 2: Strength Training** (semester elective) (pass/fail)

P.E. 2 is for the serious athlete who is interested in a more intensive physical conditioning program. The student sets a fitness goal and will learn proper techniques in both weight and cardiovascular training to achieve and maintain that goal.

## **SOCIAL SCIENCES**

**Advanced Placement European History** (with permission) (full year)

This course prepares students for the Advanced Placement Exam in European History (1450-present). It emphasizes acquiring the required factual knowledge, developing the requisite analytical and writing skills, and practicing with the kinds of questions and formats used on the AP exam. Students interpret primary sources, trace cause and effect chains, explore similarities and differences across nationalities, time periods, and subject areas, and adjudicate for themselves, the major historical controversies presented in the history of this fascinating and turbulent period.

The course emphasizes the integration of information across the fields of social developments, politics, religion, intellectual concepts, technology, and economics.

### **Comparative Religion** (semester elective)

In this course students develop the background necessary for an appreciation of the basic beliefs and practices of the world's religions. Emphasis is placed on historical origins as well as on current beliefs. Students study Buddhism, Christianity, Confucianism, Hinduism, Islam, Judaism, Taoism, and other belief systems.

### **Cultures in Conflict: Assimilation, Adaptation, and Extermination** (semester elective)

This class is dedicated to exploring the historical relationship between peoples of the Developed, Developing and "Third" worlds, and the legacies left by clashes of "western" and "non-western" cultures. Throughout history, cultures have come into conflict. Some cultures by their nature act "aggressively" toward other cultures, replacing the other culture's values with its own (even though such effects are not consciously directed). The aggressiveness of one culture can have a devastating impact on another culture, and the results of cultural conflicts are the assimilation of the weaker culture into the stronger, the adaptation of the weaker culture to the stronger, or the extermination of the weaker culture by the stronger. When finished with this course, students will have an understanding of the inevitability of cultural change over time, of the factors that make Western culture "aggressive" whether one wants it to be or not, and a feel for the position of those who belong to a culture under attack by a more aggressive culture.

### **Economics** (semester elective)

This course teaches students the basics of economic theory, the distinctions between public and private sector economic decision-making, markets, labor theory, factors affecting national and local economics, and personal finances. Students evaluate the impact of real world events on the supply and demand of various commodities and perform cost/benefit analyses of both personal financial decisions and national monetary and fiscal policies.

### **Peace and Conflict Studies** (semester elective)

This class is an inter-disciplinary inquiry into war as human condition and peace as human potential. This course enables students to explore conflict and resolution from a number of academic perspectives, honing and exercising a range of critical thinking skills and their knowledge of the social sciences. Students study the causes and realities of current and historic national and social conflicts, and they explore the ways these conflicts were brought to an end or have otherwise been avoided. Looking at the careers and teachings of 20<sup>th</sup> century peacemakers such as Martin Luther King, Jr., Ghandi, Nelson Mandela, and Jimmy Carter, students seek common themes and methodologies in the establishment of peace that can be generalized to other forms of current conflict both in the world and even around their own lives. By the end of the semester, students will put their knowledge into action by applying the concepts they've encountered to a current real-world situation, either interning at a local organization focused on a current conflict, or even forming an "interest group" on their own to bring awareness and potential solutions to the table.

### **Revolutionaries** (semester elective)

This course focuses on the people and ideas throughout modern history that have stirred the hearts of millions and caused radical change (both productive and destructive) in societies around

the world. The idea of Revolution sparks the interest of all students interested in politics, society, and ideas. This course challenges students to look beyond the heroes enshrined in the marble statues of the western "developed" world and to focus instead on revolutionaries of the "third world" or developing nations who exist in the shadows of the west, who nonetheless left their impact on ideas and the way of life all over the world. This course forays into several regions of the non-Western World and determines how these individuals came to power and how the impact of their ideas either benefited or deterred the growth of their regional influence.