

**Little Red School House &
Elisabeth Irwin High School**
A Leader in Progressive Education Since 1921



**Middle School & High School
Curriculum Guide
2006 - 2007**



CURRICULUM GUIDE 2005 -2006

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Educational Philosophy

At LREI (Little Red School House and Elisabeth Irwin High School), we begin with the understanding that students learn best when they are directly engaged in and excited by their education. We value — and encourage our students to value — the process of learning as much as the knowledge, skill and competence that the process imparts.

LREI takes pride in an educational dynamic that is interactive, challenging and truly rewarding for its students. The curriculum unites academic and creative disciplines. Students build skills, conceptual understanding and expressive talents, while gaining a sense of self-confidence and responsibility to others. We believe that what students can do and understand, how they think, and how they work with each other form the combined measure of their education. At LREI, children develop social moorings and intellectual habits that last a lifetime.

Progressive Beliefs in Action

LREI takes the beliefs of progressive education and sets them into action:

- Strong skills and solid knowledge bases, rigorously developed and meaningfully applied
- Excitement in learning
- Intellectual curiosity and commitment
- Collaborative participation balanced with individual challenge
- Active citizenship and community service
- Authentic, project-based work
- Care and nurturing
- An openness toward other points of view.

LREI makes every effort to include teachers of color, men, and lesbian and gay adults among its faculty.

Mission Statement

Our goal is to educate students to become independent thinkers and lifelong learners and to pursue academic excellence and individual achievement, in a context of respect for others and service to the community.

We believe that learning should be active and experiential, with the school providing abundant opportunities for students to excel. We accept students with a range of abilities and talents who can take full advantage of a rich and demanding academic program in which each student is both challenged and supported.

We seek to create within the school a community built on understanding and respecting others. Thus, our student body traditionally reflects the racial and cultural diversity of our city, and our curriculum is built on inter-disciplinary studies to promote understanding of many cultures. While individual achievement is encouraged and rewarded, our program underscores the value of shared goals, friendship and cooperation in mastering difficult tasks.

The progressive ideals that in 1921 gave life and inspiration to the school — academic excellence and creativity, active learning and innovative teaching, respect for the individual and responsibility to the community—continue to guide the school today.

THE MIDDLE SCHOOL: FIFTH THROUGH EIGHTH GRADES

Introduction

Middle School students meet new and greater academic challenges while reaping the benefits of active, experiential education. The program is tailored to the intellectual, social, and emotional needs of young adolescents.

The Middle School experience combines academics, development of study, organizational and research skills and individual and collaborative projects.

Middle School students participate in an increasingly departmentalized program that offers in-depth study of a wide range of subjects – language arts, math, science, social studies, foreign language, technology, the arts (art, music, drama) and physical education – as well as opportunities to master a range of academic and social skills.

Teachers encourage, expect, and teach students to accept greater responsibility for their work and to become increasingly independent learners. At the same time, students receive developmentally appropriate levels of on-going support from their subject teachers, homeroom teachers and advisors.

Integrated Curriculum

The foundation of an LREI education is the integration of academic disciplines. Formal areas of study are pursued not in isolation, but as part of a meaningful whole. In the Middle School, this integration broadens students' understanding and appreciation of the relationship between traditionally independent disciplines, the past and present, and our own and other cultures.

In every grade, study of language arts and social studies is woven together by a central theme or themes. Known jointly as "core" classes, they are taught by a single "core" teacher. Whenever possible, other classes – art and science, for example – are integrated into the core study.

Social Justice and Community Service

Social justice and community service are important components of the Middle School experience. Students learn about current events, social justice, equity and

equality issues and community service. They discuss these subjects among themselves and with their teachers in interactions that take place in homerooms, classrooms, advisories and Middle School meetings. This translates into further dialog or action, including development of community service projects.

Each homeroom and advisory participates in a minimum of least two large group community service projects annually. Students also have numerous opportunities to get involved in small group or individual projects that benefit the school, New York City or people elsewhere in the world.

Advisory and Advisors

Advisory is an important part of the Middle School program. It provides an opportunity for each student to get to know one teacher as an advocate, mentor and advisor who will provide critical support throughout the course of the student's Middle School experience. The advisory program provides a structured time during which students meet regularly under the guidance of a teacher who serves as their advisor.

Advisory groups, which are comprised of twelve students and two faculty advisors, meet in fifth-sixth grade groupings and seventh-eighth grade groupings. These groupings allow us to provide a more nuanced curriculum for the advisory program that better meet the needs of advisees and advisors. The advisory program also provides opportunities for students in all four grades to come together on a regular basis. Each fifth-sixth grade advisory group has a buddy seventh-eighth grade advisory group. These buddy groups come together throughout the year for discussion and activities. In addition, sixth graders join their buddy advisory group when they move up to seventh grade. This provides continuity in the advisory relationship as these students have already had significant interactions with their seventh-eighth grade advisory through the buddy activities.

Advisors and advisees work together in a supportive environment to establish a forum for effective communication, which helps to support a school-wide climate that values learning and growth. In advisory, students are engaged in activities that promote the development of supportive and caring relationships among all members of the school community and in activities that help students to gain a more comprehensive insight into their individual development as learners. The advisory program

provides an opportunity for students to practice leadership and mentoring skills and to receive support and assistance from their peers. The multi-age structure of the advisory groups is designed to ensure that the acquisition of these skills flows in both directions, from older students to younger students and from younger students to older students.

Homeroom Programs

The Middle School homeroom curriculum is designed specifically for early adolescents. The fifth through eighth grades are the time when students develop the habits and skills essentials to organized, thoughtful, independent learning. Skills learned in homeroom are practiced throughout all Middle School classes.

Homeroom teachers help students develop organizational and other fundamental school skills. They supervise the recording of assignments and advise students on the best way to complete assignments and projects on time. As students progress through the program, they are given more independence and receive less supervision.

Each group meets in the homeroom twice daily – once in the morning and again before dismissal. Homeroom teachers act as student advisors and are available to speak with families whenever students, families or teachers feel there is a need.

Advisors and homeroom teachers play an important role in supporting students. Families are encouraged to maintain open lines of communication with both their child's advisor and homeroom teacher. Advisors and homeroom teachers also assist students in preparing for twice-yearly family conferences.

Adolescent Issues Program

The Adolescent Issues Program was developed at LREI and is used at other independent schools. Its mission is to help students develop important interpersonal skills needed for thoughtful, informed decision-making and problem-solving.

Faculty and students work together to develop topics, which are then explored in a series of discussions and through role-playing exercises and other activities. Age-appropriate issues include learning styles, diversity, conflict resolution, friendship, social justice, substance abuse, sexuality and safety. Weekly meetings provide

the supportive environment needed to help Middle School students of all ages discover who they are and who they want to become.

Middle School Meetings

Weekly Middle School meetings bring together the entire Middle School student body to hear announcements and discuss issues of importance to students and faculty. Eighth grade student government representatives host the meetings.

The Library

The Library has and continues to build a wonderful selection of fiction appropriate for students through the eighth grade. The main library area houses a variety of young adult fiction, as well as a large nonfiction collection.

Co-curricular Programs

Co-curricular programs, which are open to all students, expose students to a wide range of experiences and provide for additional informal learning opportunities. Through these programs, students can pursue existing interests or discover new ones.

Activities range from after school athletics to chorus, band, instrumental music instruction and participation in the Middle School musical and plays. There are no try-outs for teams and auditions for theatrical productions and choruses are only for the purpose of assigning roles.

Other activities include the community service program, the Student Association, yearbook committee, chess team, robotics team, Students of Color Group, Model Congress, and Booktalkers, as well as afterschool social events, such as dance parties and student-organized get-togethers.

The Middle School Student Association – the student government – is made up of one representative from each homeroom. Members meet with the deans and the principal each week to communicate students' views on community issues and to plan events.

The yearbook committee works with high school students to create the school's yearbook. Members gather weekly in the fall and winter, so they can capture the important, memorable moments of the school year.

The chess team has weekly practice sessions and goes to meets most weekends. Students compete individually and as a team in local, regional and national meets.

The members of the robotics team meet after school to prepare for the FIRST Lego League Competition. The competition requires teams to apply principles of computer programming and engineering using Lego bricks and other Lego elements such as sensors, motors, and gears to accomplish a series of challenges.

The Students of Color Group meets weekly. Members get together, talk, compare feelings and experiences and discuss their contribution to the total student body.

Model Congress students meet on a weekly basis to prepare for the Model Congress event in the spring, which involves over 250 middle school students from 20 area schools. The event is a culmination of two quarter's worth of work during which students research issues and then develop their own bills based on an issue of interest. All participants present and debate their bills in Committee at the event.

Members of Booktalkers – a reading club – meet with the Middle School librarian and then communicate new additions to the Middle School young adult library to their classmates.

Trips

Middle School students take frequent class trips to local museums, sites of interest, and special events. In addition, each class takes an overnight trip.

In the first weeks of school, fifth and sixth graders visit an outdoor education center. The trip creates a sense of welcome and group cohesion for our younger students. Seventh graders travel to Williamsburg, Va., where their Colonial America and Revolutionary War curriculum comes alive. Each spring, the eighth grade journeys to Gettysburg, Pa., and Washington, D.C., a culmination of two years study of American history.

MIDDLE SCHOOL CLASSES AT A GLANCE

	<i>Fifth Grade</i>	<i>Sixth Grade</i>	<i>Seventh Grade</i>	<i>Eighth Grade</i>
<i>Social Studies</i>	Ancient civilizations Social justice Research skills Geography Current events	Feudal societies-- multiple perspectives (Africa, Asia, Europe) Research skills Geography Current events	Colonization/ independence Cultures in contact/ building community U.S. Constitution Research skills Geography Current events	Civil War to Civil Rights Choosing to participate Research skills Geography Current events
<i>Language Arts</i>	Literature studies and reading workshop (novels, short stories, poetry) Writing workshop (expository and creative writing) Informal essays and research papers Skills (vocabulary, spelling, grammar)	Literature studies and reading workshop (novels, short stories, poetry) Writing workshop (expository and creative writing) Informal essays and research papers Skills (vocabulary, spelling, grammar)	Literature studies and reading workshop (novels, short stories, poetry) Writing workshop (expository and creative writing) Formal essays and research papers Skills (vocabulary, spelling, grammar)	Literature studies and reading workshop (novels, short stories, poetry) Writing workshop (expository and creative writing) Formal essays and research papers Skills (vocabulary, spelling, grammar)
<i>Mathematics</i>	Operations with whole numbers, fractions and decimals Algebra concepts through graphing Number theory Polygon and angle study Mathematics Investigation Seminar	Operations with whole numbers, fractions, decimals and percents Graphing and statistical analysis Geometry and 2-dimensional measurement Algebra: Integer operations; writing and evaluating algebraic expressions Mathematics investigation Seminar	Review of basic operations Proportional reasoning 2D and 3D geometry Algebra: review integer operations; analysis of data to write and solve equations; linear relationships	Mathematics investigation seminar Algebra: notation; exponential and quadratic relationships; systems Pythagorean theorem; radical expressions Probability, combinations and permutations
<i>Science</i>	Introduction to laboratory science Construction and mechanics Engineering and reverse engineering Robotics Archeology Study of Light & EM Spectrum	Investigation of scale in various scientific disciplines Computer modeling Measurements Metric System Physics of Levers & Projectiles Search for Life in the Universe	Investigation of systems in various scientific disciplines Study of the nervous system Environmental impact studies Study of matter	Investigation of models in various scientific disciplines Forensic science Environmental science The physics of motion Earth, Sun, and Moon Systems
<i>Foreign Language</i>	Each student will take a semester of French and a semester of Spanish	French Spanish	French Spanish	French Spanish
<i>Art</i>	A variety of projects integrating art skills and materials with topics covered in core classes Painting, drawing, printmaking, ceramics and sculpture	A variety of projects integrating art skills and materials with topics covered in core classes Painting, drawing, printmaking, ceramics and sculpture	A variety of projects integrating art skills and materials with topics covered in core classes Painting, drawing, printmaking, ceramics and sculpture	A variety of projects integrating art skills and materials with topics covered in core classes Painting, drawings, printmaking, ceramics, sculpture, digital video and photography, image manipulation, and animation.

	<i>Fifth Grade</i>	<i>Sixth Grade</i>	<i>Seventh Grade</i>	<i>Eighth Grade</i>
<i>Music</i>	Music theory Music literacy and appreciation Study of songs and dances from a variety of cultures	Music theory Music literacy and appreciation Study of songs and dances from the feudal cultures studied in core	Music theory Music literacy and appreciation Study of songs and dances from colonial America	Music theory Music literacy and appreciation Study of songs and dances from 19th and 20th century America, including swing dance
<p><i>Key aspects of music curricula that connect to LREI traditions of community singing:</i></p> <ol style="list-style-type: none"> <i>1. Making music</i> <i>2. Learning skills, techniques, vocabulary</i> <i>3. Learning how to talk, research and reflect on music</i> <i>4. Understanding impact of music on our personal, community, greater society, and lives</i> <i>5. Practice active listening</i> 				
<i>Drama</i>	Theater Games	Improvisation Character studies Writing and	performing original scripts Monologues	Directing skills
<i>Physical Education</i>	Team sports National fitness testing Group games Self-defense Judo	Team sports National fitness testing Group games Self-defense Judo	Team sports Fitness portfolios Self-defense Judo Student-created games and sports	Team sports Fitness portfolios Self-defense Judo Student-created games and sports

CURRICULUM BY GRADE

Fifth Grade

Social Studies

Fifth grade social studies has a dual theme, the origins of civilization and study of specific ancient civilizations – Sumer, Mesopotamia, Egypt and Greece. Students learn how these early societies adapted to and attempted to control their physical environment. They analyze the differences and similarities of distant cultures, drawing conclusions that help them better understand how civilizations evolve. Readings and activities focus on gaining an understanding of the geography, history, culture, society, arts, science, religion and mythology of these civilizations. Students learn how ancient civilizations’ contributions in technology, science and government affect life today. They read and discuss texts, create timelines, make maps, illustrate key concepts, write research reports and take field trips.

Geography, current events and media literacy are integrated into the curriculum throughout the year. Students incorporate what they have learned about the origins of civilizations into discussions of relevant topics as part of the social justice program. Issues covered include race, gender, ethnicity, class, equity, equality, inclusion, exclusion, prejudice and privilege.

Language Arts

The fifth grade literature program includes assigned novels, short stories and poetry, as well as independent reading. It continues students’ exposure to excellent literature and supports, enriches and enlivens the social studies curriculum. Students go beyond the story line, reaching a deeper understanding of character, plot, description, dialogue and other writing techniques and subtleties. Writing assignments, both expository and creative, further enhance reading. Through independent writing projects, students develop writing abilities, including research and organizational strategies. They are assigned research projects: a short one at the beginning of the year; longer ones as the year progresses. In addition to vocabulary and spelling programs, students focus on a range of writing mechanics fundamentals through formal study. Writing mechanics are also developed through class exercises connected to authentic writing assignments and through the editing of student writing. Class presentations help students improve their oral communication skills.

Some selected readings: *Tuck Everlasting* (Babbitt), *Heroes and Monsters of Greek Myth* (Evslin), *Tales of Ancient Egypt* (Green), *Indian Myths and Legends* (Husain), *Just So Stories* (Kipling), *The Black Pearl* (O’Dell), *The Cay* (Taylor), *Belle Prater’s Boy* (White) *Gilgamesh* (Sumerian), excerpts from *The Iliad*, *The Odyssey* and *The Aeneid*.

Math

Fifth grade students develop an understanding of mathematical concepts, improve their facility with basic whole numbers, common fractions, and decimal operations and increase their independence and confidence in application of these concepts and skills. Students also learn to express and describe patterns of growth numerically and study two-dimensional geometry. Using hands-on investigations, group problem solving, discussion and writing exercises, they build an understanding of the mathematical world that will allow them not only to succeed as math students but also to appreciate how math is used in our society. Students use calculators and desktop computers to enrich their understanding of the material covered.

Teachers supplement basic texts with a variety of materials, including manipulatives. Drill work reinforces students' understanding of new concepts and enhances that computational accuracy. Throughout the year, real-world applications are used to reinforce concepts studied in class.

Students who need an extra math challenge attend the weekly Mathematics Investigations Seminar, where they are exposed to ongoing investigations into a broad range of topics not covered in the math curriculum but using skills already learned. They also are challenged to learn new skills not taught in regular classes.

Science

Fifth graders investigate a variety of scientific topics, often integrated with the core program – archeology, technology, and the relationship between people and their environment. They learn basic laboratory skills and are introduced to scientific reasoning and problem-solving. For many projects, students construct machines and devices that serve as tools for investigation. To complete this work, students use everything from hammers and nails to sophisticated microprocessors and sensors. Class discussions frequently focus on current issues in science and their relevance to contemporary life. Daily hands-on projects allow students to be scientists as they learn about the world around them.

Foreign Language

Fifth grade foreign language emphasizes both the conversational and experiential. All students take a semester each of French and Spanish. At the end of the term, they select the language they want to study through eighth grade.

Fifth grade French is an introduction to the study of the French language. Texts, tapes, and songbooks are used

to strengthen students' comprehension and develop pronunciation techniques. Lessons are reinforced with cultural activities – cooking, making menus, creating alphabet books and playing games.

Fifth grade Spanish class reinforces the introductory material students learned in the Lower School. Students learn vocabulary and basic grammatical structures through songs, art projects and worksheets. They are taught introductory verb conjugation orally, which allows them to talk about themselves, talk to a friend and speak for the group. Lessons are reinforced with cultural activities – cooking, singing and playing games.

Technology

Fifth graders begin the year by further developing their keyboarding and word processing skills. Throughout the year, simulations and computer applications are used through the curriculum – Word, Microworlds and digital photography.

The Arts

Fifth grade studio art integrates art and social studies themes, creating projects including Egyptian sarcophagi and the Ancient Art and Artifacts Museum. In music, students learn to become musically literate through understanding, creation and performance of music that relates to their study of ancient civilizations. They may sing in a chorus or play an instrument in an ensemble. Fifth graders learn basic creative drama exercises – beginning improvisation skills, group cohesion and trust. This work culminates in a dramatic production connected to the students' study of ancient Greece. Fifth graders are also welcome and encouraged to assist with the dramatic and musical productions by helping backstage with theatre design, and theatre tech, which can include working with lights, set, costumes and props.

Physical Education

Students participate in team sports – soccer, volleyball, basketball, softball, track and field – as well as physical fitness and other activities – judo/self-defense, student-led games. Classes are held in the LREI gymnasium and at off-campus facilities. Fifth graders are invited to play on the coed intramural soccer, basketball and softball teams.

Sixth Grade

Social Studies

In sixth grade, students study medieval Europe, Asian feudal societies and feudal African kingdoms. These three societal areas are examined from several points of view – governing systems, religious influences, daily life and the cultures’ lasting impact. Students participate in activities that help them not only to understand these cultures, but also their interrelationships. They analyze the cultures’ differences and similarities, drawing conclusions that help them better understand how civilizations evolve.

Language Arts

Sixth graders read materials to reinforce the cultures studied in social studies, as well as selections from the best of children’s literature, including historical epics, poems and short stories. They also participate in a weekly reading workshop that includes independent reading and journal responses. Their writing assignments are guided, but are designed to incorporate students’ topic choices. Students build on their fifth grade experience as they explore more formal approaches to essay writing and research skills. They often use classroom reading as the starting point for their creative writing. Students’ grammar and punctuation skills are developed through directed lessons and writing assignments. Some selected readings: *The Lost Years of Merlin* (Barron), *The Book of the Lion* (Cadnum), *White Mountains* (Christopher), *Beowulf: A New Telling* (Nye), *Roll of Thunder, Hear My Cry* (Taylor), *The Prince and the Pauper* (Twain), *A Sword in the Stone* (White), *Sundiata: An Epic from Old Mali* (Naine and Naine).

Math

In the sixth grade, students continue to develop their understanding of mathematical concepts, their facility with basic operations involving whole numbers, fractions, and decimals and their independence and confidence in the application of new concepts and skills. Students study statistics and probability, rational numbers, geometry, 2-dimensional measurement, and algebra (integer operations and evaluating algebraic expressions). They build an understanding of the mathematical world using hands-on investigations, group problem-solving, discussion and writing exercises. Students use calculators and desktop computers to enrich their understanding of the material covered.

Teachers supplement basic texts with a variety of materials, including manipulatives. Drill work reinforces students’ understanding of new concepts and enhances

computational accuracy. Throughout the year, real-world applications are used to reinforce concepts studied in class.

Students who need an extra math challenge attend the weekly Mathematics Investigations Seminar, where they are exposed to ongoing investigations into a broad range of topics not covered in the math curriculum, but using skills already learned. They also are challenged to learn new skills not taught in regular classes.

Science

Sixth graders investigate scientific topics (often integrated with the core program), learn additional laboratory skills, develop a working knowledge of the metric system and challenge their ability to reason and solve problems in a scientific manner. Topics include an investigation of scale – how scientists use large models of small things and small models of big things to learn about a topic that would otherwise be impossible to investigate. Students continue to use microprocessor technology to build models and original scientific equipment. They also use Microworlds software to create original scientific simulations of systems that would otherwise be impossible to study.

Foreign Language

Sixth grade French emphasizes speaking and comprehension. Students learn greetings, the alphabet, numbers up to 100, days of the week, months of the year, weather and the seasons. They ask and answer oral questions using both affirmative and negative constructions. Students’ familiarity and confidence with the language is built up with dialogues and out loud readings. They learn about Paris and, then, create a cultural project reflecting their interests. Computer software, audiocassettes and a video program supplement the regular text.

Sixth grade Spanish is more formal. Students review basic phrases and concepts and then learn formal verb conjugation, sentence structure and more difficult commands. They also create and perform dialogues. Classes use a variety of pedagogical approaches, including Total Physical Response (TPR), to teach vocabulary and a range of other concepts.

Technology

In the sixth grade, technology is integrated throughout the academic program, enhancing students’ understanding of classroom topics. Sixth graders use application software and online resources either in the LREI technology center or on wireless laptops in their classrooms.

The Arts

Sixth grade studio art integrates art and social studies themes, creating projects including stained glass windows, personal coats of arms and scenery for the Medieval Pageant. In music, students learn to become musically literate through understanding, creation and performance of music – medieval European songs – that relates to their study. They may sing in a chorus or play an instrument in an ensemble. Sixth graders expand their previously learned dramatic skills through games and exercises that clarify dramatic motivation of characters and plot. Any student may participate in the Middle School fall play or spring musical.

Physical Education

Students participate in team sports – soccer, volleyball, basketball, softball, track and field – as well as physical fitness and other activities – judo/self-defense, student-led games. Classes are held in the LREI gymnasium and at off-campus facilities, including Chelsea Piers. Sixth graders are invited to play on the coed intramural soccer, basketball and softball teams.

Seventh Grade

Social Studies

In the seventh grade, students study colonization and independence. They cover the colonization of North America, early exploration, European settlements, interactions with Native Americans, development of communities, growth of the independence movement and the creation of a new nation with a formal government. Students investigate present governmental and judicial structures that have grown out of our colonial beginnings. They end the year by examining current application of the Constitution during participation in a simulated Supreme Court case at Federal Hall.

Language Arts

Seventh graders read materials to reinforce the cultures studied in social studies, including historical fiction, novels, short stories, drama and poetry. Students learn the significant elements of each genre and are able to make more sophisticated literary analysis. They are assigned structured and unstructured expository writing exercises and creative writing projects. Students have multiple experiences throughout the year to work on formal essay and research paper writing skills. Students also continue to work on drafting, editing, and revising their writings as they develop a more sophisticated approach to the writing process. Students' grammar and punctuation skills

continue to be developed through directed lessons and writing assignments.

Some selected readings: *Shakespeare's Stories* (Birch), *The House on Mango Street* (Cisneros), *My Brother Sam is Dead* (Collier), *April Morning* (Fast), *Johnny Tremain* (Forbes), *The Giver* (Lowry), *The Crucible* (Miller), *A Light in the Forest* (Richter), *Ride into the Morning* (Rinaldi) *Romeo and Juliet* (Shakespeare).

Math

In the seventh grade, students increase their understanding of mathematical concepts – proportional reasoning, integers and introductory algebra.

They build an understanding of the mathematical world using hands-on investigations, group problem-solving, discussion and writing exercises. Students use graphic calculators and desktop computers to enrich their understanding of the material covered.

Teachers supplement basic texts with a variety of materials, including manipulatives. Drill work reinforces students' understanding of new concepts and enhances computational accuracy. Throughout the year, real-world applications are used to reinforce concepts studied in class.

Students who need an extra math challenge attend the weekly Mathematics Investigations Seminar, where they are exposed to ongoing investigations into a broad range of topics not covered in the math curriculum, but using skills already learned. They also are challenged to learn new skills not taught in regular classes.

Science

Seventh graders study the human nervous system, interrelationships of forms of matter (solids, liquids and gases) and the intersection between human and natural world systems (illustrating our impact on the environment). Students are asked to suggest improvements in the way human and non-human natural systems can interact. They also engage in scientific investigations and experiments daily.

Foreign Language

In their second year of formal French studies, seventh graders learn irregular verbs, new regular verbs in the "-er" group and use of the *futur proche* tense using *aller*. Their vocabulary is increased to include adjectives. Students begin learning the process of writing in a foreign language. They study the geography of France, and each student presents a project on a French city. Audiocassettes and a video program supplement the regular text.

In Spanish, seventh graders master the present tense of all regular and irregular verbs, learn enough grammar and verbs to write increasingly complex sentences and are introduced to the past (preterite) tense for regular and irregular verbs. Students perfect their skills with written and oral dialogues and dramatizations.

Technology

In the seventh grade, technology is integrated throughout the academic program, enhancing students' understanding of classroom topics. Seventh graders use application software and online resources either in the LREI technology center or on wireless laptops in their classrooms.

The Arts

Seventh graders integrate art and social studies themes, creating projects including colonial portraiture and creation of a colonial museum. In music, students learn to become musically literate through understanding, creation and performance of music that relates to their study. They may sing in a chorus or play an instrument in an ensemble. In drama, seventh graders develop narrative skills, which leads to writing and performing original scripts worked on in class. Any student may participate in the Middle School fall play or spring musical.

Physical Education

Students participate in team sports – soccer, volleyball, basketball, softball, and track and field – as well as physical fitness and other activities – judo/ self-defense, student-led games. Classes are held in the LREI gymnasium and at off-campus facilities, including Chelsea Piers. Seventh graders are invited to play on the interscholastic soccer, basketball, softball, volleyball, track and field and cross-country teams.

Eighth Grade

Social Studies

In the eighth grade, students continue their study of American history, exploring the social, political and economic foundations of the United States – starting with the Civil War on through the turmoil of the Civil Rights Movement. Students identify trends in present-day events, ideas and institutions through current events discussions that help them to acquire an understanding of the importance and relevance of history in contemporary life.

Language Arts

Eighth graders develop their skills in reading comprehension, literary analysis and writing by

exploring a wide range of genres, including short stories and poetry. Their appreciation of literature is enhanced by class discussions. Students become active thinkers and effective communicators through daily and long-term writing assignments. Their expository skills are developed through assignments such as editorials and critical book reviews. Students write in a variety of styles – essays, biography, poetry, and research papers – with increased expectations regarding style, voice, and argument. Students' grammar and punctuation skills continue to be developed through directed lessons and writing assignments.

Some selected readings: Warriors Don't Cry (Beals), Cold Mountain (Frazier), Across Five Aprils (Hunt), Incidents in the Life of a Slave Girl (Jacobs), To Kill A Mockingbird (Lee), To Be A Slave (Lester), Killer Angels (Shaara), Night (Wiesel).

Math

In the eighth grade, students continue to develop an understanding of patterns and functions – linear, exponential and quadratic equations as expressed in graphs and equations. They also study the Pythagorean theorem, combinations and permutations and isometric geometry. Students challenge and sharpen their ability to use skills learned to analyze and organize data, express relationships and solve problems. Concepts are investigated through a mix of individual assignments, group problem-solving and class discussion. Students generate real data for analysis through hands-on experience. They also perfect the use of graphing calculators and spreadsheets.

Science

Eighth graders study models of the physical world. They gain a more complete understanding of these complex scientific principles through discussion and investigation of everyday occurrences. Their hands-on curriculum includes skills and concepts needed to study forensic science, environmental sciences, the carbon cycle, Newtonian physics and basic concepts in astronomy.

Foreign Language

By the eighth grade, French students have a solid foundation for use of the language in comprehension, reading, writing and speaking. During the first semester, they learn the remaining present tense verb groups and additional irregular verb forms. The past tense is taught in the second part of the year. Students also begin writing short compositions in both tenses. They review French geography, study various regions and provinces of France and present a project about a specific French region. Audiocassettes and a video program supplement the regular text.

In eighth grade Spanish, students review the present tense, continue study of the preterite and learn the imperfect future and conditional tenses. They learn new vocabulary to enhance communication with the teacher and other students. In addition to chapter tests, eighth graders also write essays and dialogues.

After completing eighth grade French or Spanish, students are well prepared to continue their language studies at the high school level.

Technology

In the eighth grade, technology is integrated throughout the academic program, enhancing students' understanding of classroom topics. Eighth graders use application software and online resource either in the LREI technology center or on wireless laptops in their classrooms.

The Arts

Eighth graders integrate art and social studies themes, creating projects that reflect the Civil War and a study of 20th century artistic styles. Students also have a formal exposure to art making techniques using digital media. In music, they continue to become musically literate through understanding, creation and performance of music related to the 20th century by studying jazz. They may sing in a chorus or play an instrument in an ensemble. In drama, eighth graders use various techniques – working on monologues, for example – to develop individualized characters. Any student may participate in the Middle School fall play or spring musical.

Physical Education

Students participate in team sports – soccer, volleyball, basketball, softball, and track and field – as well as physical fitness and other activities – judo/self-defense, student-led games. Classes are held in the LREI gymnasium and at off-campus facilities, including Chelsea Piers. Eighth graders are invited to play on the interscholastic soccer, basketball, softball, volleyball, track and field and cross-country teams.

THE HIGH SCHOOL: NINTH THROUGH TWELFTH GRADES

Introduction

High School is probably the most memorable and exhilarating, not to mention demanding and daunting, stage of life. Students discover their voices, identify their passions and talents and formulate their purposes. A high school education is the departure point from which each young adult steps out into the world of higher education, professions, relationships and citizenship.

The LREI High School curriculum is problem-based, inquiry driven and interdisciplinary. A less fragmented school day and longer class time blocks allow activities to reach natural conclusions. Students can commit more quality time and energy to their studies, obtain immediate feedback from their teachers and sustain a greater sense of momentum and purpose in their academic life. Classes stress field experiences, laboratory work and research projects.

Educating for democracy is a fundamental part of our core mission. We are proud to be one of the most diverse secondary schools in New York City. Community involvement, volunteer service, active citizenship and, most of all, students taking care of one another are hallmarks of school life.

Ultimately, each of our students is a unique individual, learner and moral agent. LREI seeks to provide them with opportunities to learn and demonstrate their knowledge in ways that reflect their individuality. Our philosophy places students in a position to lead fulfilling, productive, meaningful lives and to pursue their goals with confidence and enthusiasm.

Classes

Class periods are mostly one hour in length. In addition, there are frequent long blocks — whole mornings, whole afternoons, sometimes the entire school day — devoted to fieldwork or extended in-school activities.

Graduation Requirements

To receive a diploma, LREI students take five academic classes plus three trimesters of art annually. Completion of the Senior Project is a requirement for graduation. To graduate, students must complete:

- Four years of English, history, mathematics, the arts and physical education
- Three years of foreign language and science

- Two years of technology
- Two years of life issues
- Four years of community service

Honors Projects

Honors Projects are available for students throughout their High School years in all disciplines. By electing to pursue an Honors Project, students challenge themselves above and beyond the requirements of the curriculum. Honors Projects represent meaningful works of scholarship or artistic endeavor that focus on specific topics in great depth. Honors projects promote intellectual curiosity, independence, commitment, initiative and rigor, and allow students with particular abilities and/ or desires to follow their passions in authentic ways. Successful completion of an honors project is entered on the official high school transcript.

The Senior Project

The Senior Project – a major piece of original work in the field of his or her choice – is the culmination of each student’s career at the High School. The senior project has two components: the research paper and the practicum. Beginning in April, seniors work on the research component, meeting regularly with their project mentors on the faculty. The research component serves as the factual basis for a four-week practicum, which begins in late April. The practicum is a field experience that often involves professional internships and domestic or foreign travel. The Senior Project Evening in June is a major event in the school year to which parents, teachers and the entire school community are invited.

NYU College Preview Program

High School students are eligible to take college courses at New York University. Interested students can speak to the Dean of College Guidance to determine available offerings prior to the beginning of each NYU semester. In general, these courses are for Eleventh and Twelfth Graders. Recent courses offered include: *American History, Astronomy, Literature as Exploration, Italy in the Time of Dante, Russian Literature, Pan-African Studies, Introduction to Philosophy, Nutritional Science, Astronomy, Etymology, Computers in Programs and Practice.*

Minimester

Minimester is a three-day immersion term of mini-courses designed to engage students in a stimulating range of subjects. Students explore extraordinary opportunities to learn and experience a subject on multiple levels — immersion in one topic, an interdisciplinary approach and freedom from the constraints of the regular schedule. Minimester is a laboratory of progressive education. It inspires teachers, allowing them to create experimental, experiential learning activities, bring in outside experts and resources and develop material that reflects their passions and experiences. Recent Minimester courses included: *Vietnam and America*, *Exploring Foreign Cultures Through Cinema*, *Mural Painting for Community Service*, *Music Production: Songwriting/ Composing for Film*, *Tibet: Culture/Art, Religion*, *New York Harbor and the Hudson River Estuary and Watershed*, *Introduction to India*, *Food, Nutrition, Diet & Cuisine*, *Zen Flesh*, *Zen Bones - An Overview of Asian Art and Culture*, *Robotic Toys*, *Filming Poetry in Motion*, *Pinhole Photography*, *Hip-Hop: Making the Beat*, and *Finding the Self on the Page and Stage*.

Guidance

The Advisor System

Each student is assigned an advisor at the beginning of the year. Advisors are teachers who provide seven to eight students with guidance and support throughout the term. Advisories meet as a group on a weekly basis to discuss school programs and age-appropriate issues such as study skills, time management and college guidance. Advisors stay informed about advisees' academic progress, extracurricular endeavors, and social and emotional well being, meeting with each assigned student on a regular basis. The advisor is the first and main conduit of information, in both directions, between parents and the school; they relay relevant information from parents to faculty and from faculty to parents.

The Academic Support Center

The Academic Support Center is a place where students can get help with their work in any subject. They also may be enrolled in the Academic Support Program — one-on-one tutorials — at the request of their parents or the suggestion of school staff. Academic support center instructors organize the peer-tutoring program and coordinate services of graduate education students from Teachers College, Bank Street College of Education and New York University.

College Guidance

The Director of College Guidance meets regularly with students, supervising their college selection and application process. Students take a college guidance seminar beginning in the second trimester of the Eleventh Grade and participate in a series of individual conferences to develop prospective college lists. Juniors take a SAT test preparation course in the spring, as well as an overnight trip to visit college campuses. The college guidance seminar continues through the first trimester of the senior year, when students complete and submit their applications.

College Board Testing Program

Each year students prepare and take a number of College Board standardized examinations:

- PSAT (Tenth and Eleventh Grade)
- SAT I — Reasoning test (Eleventh and Twelfth Grade)
- The SAT II — Subject tests in a variety of disciplines, formerly known as achievement tests (usually taken in Eleventh or Twelfth Grade)
- Advanced Placement Examinations (usually taken Eleventh or Twelfth Grade)

LREI encourages students to take at least three SAT II subject tests, which most selective colleges require. The Director of College Guidance, in conjunction with the faculty, helps students identify and prepare for the SAT II subject tests that best fit their college plans. Each department prepares students for Sat II tests in the classroom. Additional test preparation classes are organized when there is sufficient interest. Parents should contact the Director of Academic Support regarding policies governing extended time for standardized testing. Advanced Placement Examinations are offered in May. Usually preparation for AP Exams is conducted through the review class format, which supplements regular curriculum.

Life Issues

High School is a transitional period when students deal with increasingly complex and challenging issues — developing their identity and values, as well as personal resources and knowledge they need to negotiate the adult world. The life issues classes provide students the opportunity to explore these complex issues in a safe, respectful environment. Each student keeps a journal, writing his or her responses to discussions about law, sexuality, gender and peer relations, self-awareness and self-esteem,

substance use, abuse and dependency, diversity and social justice. Journal entries are the basis for issue processing through dialogues, unsent letters, lists and brainstorming. The class receives visits from guest speakers from outside institutions. Students in the Ninth and Tenth Grades take two trimesters of Life Issues yearly.

Student Government

LREI believes in giving students the greatest possible appropriate voice in the running of the school. The student government is made up of two representatives from each class. The entire student body elects its four officers —president, vice president, secretary, and treasurer —. The responsibilities and powers of the body are stipulated in the student government constitution — written and ratified by students and approved by faculty.

Peer Leadership

LREI supports its students in several ways, and fellow students are the best supporters. Each spring, students in Eleventh Grade may apply to be a Peer Leader. Nine or ten are chosen, depending on the number of applicants, and they go through rigorous leadership training in late summer and throughout the fall to prepare for their role. Peer Leaders are available for mentorship, guidance and support to all members of the Ninth Grade. They work individually as needed and formally with small groups every two weeks. Groups discuss a range of topics including self-esteem, decision-making, peer pressure and a variety of social issues. Peer Leaders also attend the Ninth and Tenth Grade overnight trip in late September.

Community Service

Through community service, LREI promotes core values — empathy, compassion, social awareness and civic responsibility — exposing students to the important role each person has in ensuring the success of their high school careers. Each student at the High school is required to perform twenty-five hours of community service in the Ninth, Tenth, Eleventh and Twelfth Grades. The High School at LREI has been selected as a New York Cares Partner School, which provides students with many community service opportunities. In addition, students develop their own connections with social service and philanthropic organizations throughout the city from soup kitchens to homeless shelters to library literacy

programs to after school programs. Students may choose from scores of agencies and organizations in their particular area of interest, among them Habitat for Humanity, the Sierra Club, God’s Love We Deliver, the American Red Cross, the United Way, Global Kids, the Coalition for the Homeless and many more. School service may account for ten hours of the total. Often students participate as guides, assistants and tutors within the school community.

The Community Service Roundtable

The LREI Community Service Roundtable, a student-driven “foundation,” identifies and makes grants to worthy volunteer activities and service organizations in the community. It builds on the High School’s long tradition of fostering volunteer service to the community, involvement with issues of economic and social justice, and service learning as a central component of the core curriculum. The Roundtable brings together students who have distinguished themselves in the school’s community service program, working in conjunction with an advisory group made up of parents and friends of LREI.

Clubs and Activities

High School Literary Magazine

The High School Literary magazine contains student poetry, stories and memoirs. LREI writing students get to work with nationally known authors. Recent guest instructors have included Bob Holman (editor, Poetry In America), Brent Staples (memoirist; member of The New York Times editorial board), Safahri Ra (nationally known spoken word artist and poet) and Owen Sheers (Welsh poet and novelist).

Performing Arts

Students participate in the jazz ensemble, chorus and annual musical and drama productions — which have won praise from generations of parents and critics alike. The jazz band and chorus perform at numerous school events and in the community.

Students of Color Mentoring Program

Members of the Students of Color Mentoring Program provide guidance and support to students of color in the Middle School. The program promotes social interaction through educational and cultural activities and responds to LREI multicultural issues.

Amnesty International

Students work with Amnesty International educators and policy experts to enhance their understanding of social justice and human rights issues around the world. The Amnesty International group writes letters, sponsors assemblies and on occasion runs one of the annual Coffeehouses.

Other

Students and teachers work together to initiate clubs, organize special assemblies and sponsor social events. Clubs cover a variety of interests — environmental action, outdoor adventures, art galleries, step team, film, Latin American cinema, chess, chocoholics club, fiber arts, and more.

LREI Abroad

Students are encouraged to travel as part of their high school education. Each of the past two years, the High School has hosted a group of students from a high school in Germany and has sent a group to Munich; potential additional destinations are Spain, France and China.

HIGH SCHOOL CURRICULUM SUMMARY

Arts

The arts are central to the experience of every student. LREI offers electives in seven areas of study: studio art, photography, media studies, graphic arts, theatre, dance and music. In the Ninth Grade, students go through a rotation of six-week courses in each discipline except graphic arts. They are then able to take offerings of increasing levels of sophistication during the Tenth through Twelfth Grades. Tenth Graders must take at least one course in both the visual and the performing arts.

Foreign Language

LREI offers classes in Chinese, French and Spanish. The members of the foreign language department determine appropriate placements. LREI foreign language classes help students acquire self-confidence in use of the language, emphasizing basic language skills, conversational proficiency, study of major texts and awareness of the language's influence on cultures of the world. Students pursue interdisciplinary projects, using technology, which is integrated into all language instruction.

English

Throughout High School, students view the study of literature through the lens of recurring themes including historical context and socio-political ideas and how literature gives a voice to the marginalized in society. Students work on writing throughout the four years and develop a portfolio of writing samples and reflections. After an introduction to world and American literature, and different genres, in the Ninth and Tenth Grades, students are free to choose from a wide variety of electives. Students must take at least one course in each of the three categories (World Literature, Writing Intensive, American Literature Seminar) in order to graduate.

History

Historical studies at LREI examine the political, social, cultural and creative legacy of humanity. In history classes, students work from original documents and interpretive texts to understand how scholars construct history in all its diversity and contingency. They learn to draw on the social sciences to give theoretical perspective to the narrative record. The arts and literature and high and popular culture are integrated into the study of the past. Students are introduced in systematic ways to the analysis and interpretation of American history, European history and Global history from both a chronological and a thematic perspective. Examination of such organizing themes as the territorial expansion of peoples, the rise of and conflicts between states, and the evolution and transformation of economic systems and world-views are balanced by attention to historical factors and points of view traditionally ignored by dominant historical narratives.

Mathematics

High School students use an investigative approach, developing a robust understanding of mathematics. They study algebra, geometry, trigonometry and calculus, perfecting the problem-solving and critical thinking skills needed for mathematical competency and study of advanced mathematics. Graphing calculators are required in all classes. By the Twelfth Grade, students take pre-calculus, calculus or data analysis. All LREI mathematics classes emphasize writing, reflection about mathematics and the interrelationships between math and the other disciplines. Students investigate real-life contexts to connect and continually reinforce fundamental ideas and mathematical habits.

Physical Education, Athletics and Life Issues

LREI offers physical education classes that are designed to help students develop lifelong habits of health and exercise. These classes are complemented by a wide and ever-growing variety of sports offerings. In addition, in the Ninth and Tenth Grades students take Life Issues, a program designed to ensure that students are able to manage their own psychological, emotional and social well-being.

Science

LREI science classes provide students with a foundation that equips them for more advanced work in the life and physical sciences. The integrated science curriculum in the Ninth and Tenth Grades combines biology, chemistry and physics. Eleventh Graders may elect to take advanced chemistry, advanced biology or astronomy. Seniors may choose either physics or environmental science. The sciences at LREI emphasize creation of hypotheses, in-depth investigation, report writing and presentation, and the ethical use of scientific knowledge.

Technology

Technology is integrated into all LREI subjects. The Tech/Media Center is equipped with eMac computers, digital cameras, desktop video, scanners and video production and editing equipment. Students are expected to master keyboarding, word processing and other software applications — Microsoft Excel, Adobe PhotoShop, HTML, Filemaker Pro and Macromedia Flash.

Honors Projects are available in all subjects to students in Ninth, Tenth and Eleventh Grades; the Senior Project is the culmination of the student's career at the High School.

HIGH SCHOOL CLASSES AT A GLANCE

	<i>Ninth Grade</i>	<i>Tenth Grade</i>	<i>Eleventh Grade</i>	<i>Twelfth Grade</i>
Arts	Required rotation: Dance, Drama, Media Arts (Film), Music, Photography, Studio Art	Electives in Dance, Drama, Graphic Arts, Media Arts (Film), Music, Photography, Studio Art	Electives in Dance, Drama, Graphic Arts, Media Arts (Film), Music, Photography, Studio Art	Electives in Dance, Drama, Graphic Arts, Media Arts (Film), Music, Photography, Studio Art
English	Introduction to Literature (Journey of Self-Discovery)	American Literature (The American Dream) Writing Memoir and Personal Narrative, Latino/a Literature, Dangerous Language, Exploring World Religions through Literature, Creative Writing, Non-Fiction Writing, Shakespeare Revised, Literature of the City, Queer Identities: Gay and Lesbian Literature, African-American Literature, Art and Politics: Toni Morrison, Fairy Tale Literature Across Genre and Time, Playwriting: From the Page to the Stage	Electives for mixed Eleventh & Twelfth Grades (tentative): Global Literature I and II, Girls Gone Wild: Gender and Madness in Dramatic Texts, Discovering the Self	
Foreign Language	French II, Chinese I, Spanish I-II	French III, Chinese II, Spanish II-III	French IV, Spanish III-IV	French V, Spanish IV-V Ind. Study in French Literature, Ind. Study in Peninsular and Latin American Literature
History	The Making of the Modern World	Topics in American History	Gotham –History of NYC (Required in Eleventh), Advanced US History (Eleventh only)	
Mathematics	Algebra/Geometry, Algebra/Geometry (Advanced)	Geometry/Algebra II, Geometry/Algebra II (Advanced)	Algebra II/Topics in Pre-calculus, Pre-calculus	Data Analysis, Pre-calculus, Calculus
Physical Education, Athletics and Life Issues	Physical Education: Cardio-Strength Training, Yoga, Fitness (Aerobics), Karate Athletics: Volleyball, Soccer, Cross-Country, Basketball, Softball, Track and Field, Tennis, Golf Life Issues (Ninth and Tenth Grades)			
Science	Biology, Chemistry, Physics I	Biology, Chemistry, Physics II	Advanced Biology, Advance Chemistry, Astronomy	Physics, Experimental Science, Environmental Studies
Technology	Introduction to Technology	Intermediate Technology, Computer Graphics	Computer Graphics	Computer Graphics

CURRICULUM BY SUBJECT

ARTS

Dance

Introduction to Dance (Ninth Grade)

Introduction to dance explores dance as a universal human activity and an expression of cultural identity. Through readings, viewing live performances and videos as well as experience practicing and performing dance, students take a look at the numerous ways that dance functions historically, theatrically and non- theatrically in our and other societies.

Text: *Dancing: The Pleasure, Power, and Art of Movement*, Gerald Jonas

Modern Dance

This course is an introduction to the basics of modern dance including technique, improvisation and dance composition. This knowledge is used to better communicate thoughts, feelings and images through movement. Students study dance technique from several different styles of modern dance and learn to create movement of their own from a variety of sources.

Dance, Improvisation and Scoring

Students will study dance improvisation, learn how to create dance scores and practice performing them. They will use a variety of sources from which to inspire their improvisations. Students will explore poetry, site specific images, music, painting, sculpture and the work of other choreographers. Students will unearth the common artistic themes that run through different art forms and different cultures. Students learn to manifest physically that which is presented in other forms of art. Students create original movement scores to further their appreciation of dance.

Independent Study in Dance

The independent study combines an in-depth study of the students choosing and intensive work on technique and choreography.

Drama

Theatre Shock I and II: The Shock of Recognition and Exploring the Theatrical Moment

Theatre Shock is a theatre foundation course designed for the beginning to advanced performing artist. Students have the opportunity to engage,

daily, in an intensive investigation into the art of theatre making. The focus of the class is the analysis of the theatrical moment. What is a theatrical moment? Artists learn to recognize it, deconstruct it and analyze it, in order to recreate it. Through the creation of an actor's notebook, students begin to identify theatrical moments in their daily lives. The actor's notebook serves as written evidence of the student's investigative journey. The entries, as a whole, become integrated into daily class work and inform the direction of the class.

Texts include: *An Actor Prepares*, Constantin Stanislavski; *Respect for Acting*, Uta Hagen; *The Empty Space*, Peter Brook.

Theatre Ritual: Objects, Stories & Mask

This course investigates the foundation of ritual in theatre from its ancient beginnings to today. Students look at ritual in every day life in order to examine its power and potential in the arts. In order to better understand this rich legacy, students research cave paintings, tribal dances, masks and headdresses, as well as sacred objects. They compare ancient Greek literature and Shakespeare to more modern plays, musicals, dance, and performance art in which ritual plays a major role. Relevant New York productions such as *Metamorphoses*, *De La Guarda*, *The Lion King*, *Blue Man Group's Tubes*, *Blast*, *Stomp*, *Zingaro's Triptyk* and *Cirque du Soleil* are discussed. The class visits museums and attends theatre performances.

Texts include: *The Tragedy of Macbeth*, William Shakespeare; *Improvisation for the Theater*, Viola Spolin; *Masks and Mask Makers*, Kari Hunt & Bernice Wells Carlson; *The Prop Builder's Mask-Making Handbook*, Thurston James.

Theatre Lab: Advanced Acting and Directing

Theatre Lab is designed for the specific needs of the more advanced performing artist. "Laboratory" inquiry gives students an opportunity to engage, daily, in an intensive investigation into the art of acting and directing. Students study various acting styles and methods encompassing the totality of the actor's mental, physical and emotional skills. Students work on scenes ranging from classic plays to contemporary movie scripts. For each scene, students are able to choose between acting and directing. In this class, students learn to understand the creative process of the actor and the director, the stages of rehearsal, and the importance of composition, space, and time.

Texts include: *Between Two Silences: Talking With Peter Brook*, Ed. Dale Moffitt; *To The Actor*, Michael Chekhov; *Great Directors at Work*, David Richard Jones; *Games for Actors and Non-Actors*, Augusto Boal.

Performance Structures: Advanced Theatre Topics

In order to take this elective, students must have already taken at least two drama foundation courses and have performance experience. These advanced students engage daily in an intensive investigation into the art and structure of performance. Students study various short plays and one acts. They analyze the plays' dramatic structure, character development and performance choices. The class eventually selects one of the plays for performance. A Performance Structures Journal serves as written evidence of the performer's investigative journey. The entries consist of personal reflections, concepts, ideas, scenes, monologues, play critiques, character biographies and finally, the history, criticism, and structural analysis of the play selected for final study and performance.

Texts include: How to Read a Play, Ronald Hayman; Systems of Rehearsal, Shmoit Mitter; The Bear, Anton Chekhov; Waiting for the Bus, Ramon Delgado; Spreading the News, Lady Gregory; Enemy of the People, Henrik Ibsen; The Chairs, Eugene Ionesco; A Kind of Alaska, Harold Pinter; No Exit, Jean Paul Sartre; Something Unspoken and The Glass Menagerie, Tennessee Williams.

Independent Study in Theatre

Advanced students may design an independent course of study with the instructor.

Theatre Productions

There are two major drama production each year. The general public is welcome to attend the school's theatre productions. Recent productions include *The Miser* by Moliere, *The Tempest* by Shakespeare, and *The Oresteia Cycle* by Aeschylus.

Graphic Arts

Graphic Design

The goals of this course are to investigate the main ideas inherent to graphic design (Perception, Balance, Flow/gestalt, Position, Typography, Color), to obtain some skill in the tools of graphic design and to apply these skills and ideas in the creation of student projects. The main design tool used is the Adobe Creative Suite (Illustrator, PhotoShop, InDesign and GoLive). Students also explore graphic design for print and electronic media.

Animation and Game Design

Video game artists have developed compelling and thought provoking works ranging from the political satires that offered an alternative perspective on the recent presidential campaign to large works

encompassing virtual worlds such as America McGee's Alice and Rand and Robyn Miller's Myst. This course explores these ideas and develops skills to make and design games. To create games, one needs to develop visually and aurally appealing space, design an interface to that space and develop a story or situation that compels someone to interact with that space. Tools such as Macromedia Flash and Blender to create the game space and its interactivity are used. Tools such as Adobe PhotoShop, Adobe Illustrator and scanned paint/pen/charcoal works are also used to provide the look and feel of the games.

Media Arts

Introduction to Filmmaking - Basic Film Technique (Ninth Grade)

In this course, students explore basic film language and learn where to put the camera when and why. Students ask, and answer, the following questions: What is a "shot"? What can it do? How can the director manipulate an audience in the way that best serves the story the director wants to tell? Each student makes two films: one single-shot film and one multiple-shot film. Each film must have a clear beginning, middle and end (though the subject matter is up to the student), and must be from one to three minutes long. Students work in crews and shoot on high quality, 3 CCD Sony digital video cameras. They edit their projects on Final Cut Pro, a Macintosh-based editing program.

Advanced Filmmaking - Beyond the Basics

This is a course for those who have already taken at least one filmmaking class. Filmmaking techniques that go beyond basic shot manipulation are explored. Students have an opportunity to make a number of short films, working in crews of three to four students each. While mastering continuity filmmaking is an important part of this course, students are encouraged to develop their filmmaking skills beyond this. Experimental editing and montage are just some of the techniques encouraged in the course.

Basic Screenwriting - Understanding Structure

Why is Aristotle important? Who is Joseph Campbell? Do rules and formulae really matter? What is proper script format? Should voice over narration be used? How does one write visually? These and other questions are explored along with the basics of dramatic structure as it applies to the film medium.

Many film clips are viewed to see what others have done, both with and without success. Each student writes at least one complete short film script for a five-minute movie. In addition, time permitting, students may attempt to film their script, using their classmates as crew.

History of Film - An Overview of World Cinema

Were silent movies really silent? Did Sam play it again? Did Mookie do the right thing? And what in God's name was George Lucas thinking? Students watch movies made from 1895 to the present to find out. They also watch films from Hollywood, Brooklyn, Beijing and beyond and learn how to watch and critique them. There is significant reading in this course in addition to weekly one-page reviews on films seen in the class.

Acting for Film - The Life in Front of the Camera

Is acting in a movie any different than acting on a stage? What's the motivation? How does an actor prepare for a role so that the director can shoot a movie out of order? Students explore these and other questions in this course, as the life of the actor as he or she exists on camera is examined. This course is for those who love the stage but are inexperienced on film, as well as for those who consider themselves directors.

Documentary Filmmaking

In this age of "reality TV," the art of the documentary is in flux. What is real and what is fiction? And what does "real" actually mean? And how can the viewer tell? Students study the methods behind the great documentaries of our time and before, and then make a documentary of their own. Working in crews of two to three, each student chooses a subject that interests them, researches and films it using high quality 3 CCD Sony digital video cameras.

Music

Introduction to Music (Ninth Grade)

This course introduces students to music history, theory, composition, and performance within a small ensemble. The course is open to instrumentalists and non-instrumentalists. The focus is on developing musicianship and improvisational techniques. Students compose and arrange their own music for a performance at the end of each trimester. Frequent field trips expose students to the world of music at Lincoln Center, Juilliard, and the Mannes College of Music.

Advanced Music

This class is for musicians who are interested in improving their improvisational skills while continuing to develop their musicianship and their knowledge of music theory. Students have frequent opportunities to learn from professional musicians in special master classes.

Individual and Group Lessons

Lessons are offered for beginners in piano, string and percussion instruments. Lessons for intermediate musicians in most instruments are also available.

Jazz Band

All instrumentalists are welcome to join the El Jazz Band — with special emphasis on drums, bass, guitar, keyboard, sax and brass. Students are encouraged to write their own lyrics or music. The group's repertoire includes blues, jazz, representative hits from the 50's up to the present, and original songs. The group performs throughout the year for the school community and whenever possible at other schools, arts festivals and community events.

Music Production

This course covers many areas of music production, scoring and studio recording techniques. Students are introduced to the latest audio and MIDI software, and are encouraged to integrate this technology into their projects. The projects include scoring music to a film clip, and writing music for a commercial. They also experiment in the compositional genre of "musique concrete," by using everyday sounds of New York City in a musical composition.

Independent Study

Advanced students may develop independent programs in instrumental music, composition, arrangement, and music history. Independent studies in music may be pursued in conjunction with the Media Lab, which contains digital technology for music recording and mixing and editing equipment for music and film. The lab is equipped with Macintosh G4 computers, Pro-Tools and other advanced software.

Photography

Introduction to Photography (Ninth Grade)

This course teaches basic photographic principles and camera techniques. Students learn how exposure, depth of field, composition and lighting can affect the reading of a photograph. In addition, students also learn fundamental darkroom skills such as film developing, printing, and techniques of print manipulation (cropping, dodging and burning), and the use of variable contrast filters. A portfolio of at least ten mounted and finished prints is required.

Photography II

This course focuses primarily on the development of each student's photographic style. Students have the opportunity to experiment with various camera formats and learn advanced studio and darkroom techniques through class projects and demonstrations. Emphasis is placed on ongoing personal projects. By the end of the course, each student creates a portfolio of related photographs using the techniques and subject matter of his or her choice.

Practicum in Advanced Photography

This class is designed to prepare advanced students for study at the college level.

Studio Art

Introduction to Studio Art (Ninth Grade)

This overview of the studio art program presents students with some of the materials and visual options available to them in the studio. Drawing from observation prepares students for all kinds of visual work, helping them to better express their creative ideas. Students study color theory through color exercises and, working with acrylic paints, they tackle both observed and imaginative subject matter. The studio uses artists' materials; they learn how to best choose the tools for their artwork. Through a series of short projects, students study drawing and painting, collage, printmaking and sculpture.

The following topics are included within the Tenth, Eleventh and Twelfth Grade Studio Art classes:

Drawing and Painting

This class introduces students to the various elements of drawing and painting. Students draw from models in the studio and frequently take their materials outside to draw from their immediate environment.

Students learn how to stretch paper and canvas, how to prepare surfaces and how to put materials to best use. The connection of the students' work to the history of art is emphasized. There are frequent gallery trips and their work is always on exhibition within the school. Students are expected to keep a current portfolio of work.

Advanced Painting

This class is for students with the skills, experience and desire to do advanced work in the art studio. Areas to be studied include the use of glazes and other media, alternative painting surfaces, light in painting, the human figure in painting and observed and imaginative drawing. There is an emphasis on art historical sources and study of individual artists and art movements. Students use sketchbooks and keep a portfolio.

Printmaking

This course is suitable for both beginners and students with some experience of the techniques offered. These techniques include monoprints, collagraphs, silkscreen, block printing and engraving. Projects include printing on fabric and paper, combining the printed surface with both painting and sculpture and handmade books. Preparatory drawing work is emphasized and students are encouraged to experiment with the available techniques.

Sculpture

In this course, students work on sculpture as well as other three-dimensional formats. Students create fine art and functional objects. Materials include clay, plaster, paper, cardboard, fabric papier-mâché and found objects. Simple casting and mold making are introduced. The use of the maquette and drawing for 3D augment the students' spatial experiences.

ENGLISH

English 9: Introduction to Literature (Journey of Self-Discovery)

This course facilitates the transition from middle school to high school by focusing on reading and interpreting poetry, drama, fiction, and non-fiction. Students read literature from Western and non-Western traditions and are introduced to the skills of literary analysis through a combination of creative and analytical projects. Literary selections are designed to complement the Ninth Grade history course. Students develop a solid foundation in critical reading

skills and the writing process and learn to use various kinds of texts to support interpretation and analysis. Major projects include a creative poetry anthology, a personal essay on a journey of self-discovery, and a comparative study of heroic figures in canonical works. Students also work on a writer's portfolio that forms the basis of the exhibition that is presented at the end of the year.

Texts include: *Norton Introduction to Poetry*; *The Odyssey*, Homer (trans. Ewald); *Othello*, Shakespeare; *Into the Widening World: International Coming-of-Age Stories*, Ed. John Loughery; *Catcher in the Rye*, J.D. Salinger; *Fences*, August Wilson

English 10: American Literature (The American Dream)

In the Tenth Grade, the study of American literature focuses on the major American literary movements of the 19th and 20th century while students critically examine the concept of the American Dream. Texts cover a wide variety of genres, including novels, short stories, poetry and dramatic works. The study of multicultural literature emphasizes symbol, theme, historical context and narrative structure. Throughout the year, students continue to develop vocabulary, writing and analytical skills necessary for the SATs and SAT IIs and college-level coursework.

Texts include: *Native American Stories*; *Essays*, Ralph Waldo Emerson; Excerpts from *Ragged Dick: Street Life in New York*, Horatio Alger; *Incidents in the Life of a Slave Girl*, Harriet Jacobs; *Pudd'nhead Wilson*, Mark Twain; *Their Eyes Were Watching God*, Zora Neale Hurston; *The Great Gatsby*, F. Scott Fitzgerald; *Short Stories*, Ernest Hemingway and William Faulkner; *Raisin in the Sun*, Lorraine Hansberry; *Cat on a Hot Tin Roof*, Tennessee Williams; *Dreaming in Cuban*, Cristina Garcia; *The Death of Horatio Alger*, Amiri Baraka

Electives (11th and 12th Grades)

Students must take at least one course in each of the three categories (World Literature, Writing Intensive, American Literature Seminar) in order to graduate.

Fall Electives

Global Literature I (World Literature)

This course is designed to introduce students to a variety of traditional and non-traditional cultures around the world. Through film and international texts, students explore the ways individuals/groups of people live their lives in comparison to the way we live in America. Class discussions/themes might include critical thinking about questions such as, "How well does literary text reflect the values, beliefs and customs of a particular society? Who determines what's

important and what is not? What types of social systems appear in all societies? What types of systems are different and why? How well does a particular society's systems/norms support the needs of individual people?" Small group classroom work provides students with opportunities to share information about their own cultures, and to learn about the cultures of their peers. Writing assignments include short paper reflections of course texts and student experiences. A final research paper/artistic project is also required.

Global Literature II (World Literature)

See Global Literature I. Texts are subject to change.

Girls Gone Wild: Gender and Madness in Dramatic Texts (World Literature)

Cassandra, Medea, Ophelia, and Hedda – what do these women have in common? Misunderstood, betrayed, and oppressed, they are driven to madness – and often to violence – by the men in their lives. In this course, students read dramatic works from classical, Elizabethan, and contemporary playwrights and explore the relationship between love, sex, gender, and society. Students are required to read plays and theater criticism and respond to the readings through analytical and creative writing and performance. Representative dramatists may include Aeschylus, Sophocles, Aristophanes, Shakespeare, Ibsen, Shaw, Brecht, and Miller.

Shakespeare Revised (World Literature)

William Shakespeare is an author that appears on virtually every high school English syllabus and countless actors perform his plays each year. To what can we attribute Shakespeare's great fame and lasting popularity? How have "the Bard's" plays been able to survive centuries of reading, performance, and unceasing analysis? In an attempt to answer these and other questions, this course explores issues of concern to Shakespeare's audiences from his time to modern times -- love, sex, gender, power, politics and psychology – through close textual examination of a few of Shakespeare's plays. Works of literary criticism, performance studies, and contemporary fiction supplement dramatic readings. Students also experience the plays from the perspective of the actor and director, as they perform scenes in class and watch various stage and film adaptations. Students write a series of critical essays and responses to the works and complete a major independent project at the end of the trimester. Readings may include: *Twelfth Night*, *The Merchant of Venice*, *Othello*, *King Lear*, *A Thousand Acres*, and *The Complete Works of William Shakespeare Abridged*.

Once Upon a Time: Fairy Tale Literature Across Genre and Time (World Literature)

Fairy tales aren't just for children—in fact, many of them were never intended for children at all. In this course, students look at multiple variants of tales found across the world and work together to define the genre. Students also examine the move from oral to literary versions and how writing the stories changed them. The course moves from the oldest known variants to the “clean” nursery tales of the Victorian period, to the Disney versions, and finally back again with retold and fractured contemporary versions. Focal stories include *Sleeping Beauty*, *Cinderella*, and *Little Red Riding Hood*. Students read tales and criticism as well as at least one novel. Students also look at fairy tales in print and film, and assignments range from short papers to writing original tales.

Art and Politics: Toni Morrison (American Literature Seminar)

Toni Morrison is one of the most celebrated and honored American novelists of this as well as the last century. Winner of the 1993 Nobel Prize in Literature, Morrison's artistic and political enterprise gives voice to the silence of the African-American experience. The first half of this course focuses on two major novels: *Beloved* and *Sula*. These novels challenge readers to examine Morrison's complex use of language, memory, and imagination. Both of these novels ask readers to analyze how race, class, gender and sexuality inform black consciousness, especially in terms of motherhood and female friendship. At the same time, Morrison also asks readers to consider the implications of black masculinity. The second half of the course explores Morrison's essays ranging from her Nobel Prize in Literature acceptance speech, to her commentary on the heated debate about the literary canon, the Anita Hill vs. Clarence Thomas hearings, and the O.J. Simpson trial.

African-American Literature (American Literature Seminar)

This elective examines African-American literature from colonial times to the present. In addition to reading and writing across the genres – poetry, short story, novel, drama – the course also addresses historical, political, and social contexts in which the texts were created. The course is interdisciplinary in nature in order to expose students to a wide variety of historical documents, art, music, and film. Through class discussion, readings, collaborative and individual projects, students develop their understanding of the

people, texts, and ideas that have shaped African-American literature. Texts may include African folk tales, slave narratives, sermons and political speeches, as well as works by Langston Hughes, Zora Neale Hurston, Ralph Ellison, Malcolm X, August Wilson, Toni Morrison, Anna Deavere Smith, and others.

Latino/a Literature (American Literature Seminar)

This course examines the rich legacy of writing by Latinos/as in the US. The course explores how writers explore issues such as race, class, gender, ethnicity, sexuality, language and religion. Of particular concern to these writers are questions pertaining to cultural identity and political consciousness. Discussions about *Latinidad*, Latino/a vs. Hispanic, and the economic, social and political rise of Latinos in American popular culture as well as in urban, suburban and rural communities frame the beginning portion of the course. The course also focuses on a variety of literary texts that include poetry, plays, memoir, fiction and cultural criticism. Writers may include: Reinaldo Arenas, Gloria Anzaldúa, Ana Castillo, Junot Diaz, Cherrie Moraga, Aurora Levins Morales, Miguel Pinero, Nelly Rosario, Caridad Souza, and Piri Thomas. Films and possible trips to INTAR, the Puerto Rican Traveling Theatre, and El Museo del Barrio may also be planned.

Dangerous Language (American Literature Seminar)

Throughout history, societies have repressed, censored, and banned books perceived to be “dangerous” or controversial due to their provocative subject matter, political extremism, or incendiary language. This interdisciplinary course explores some of these “dangerous books” while also exploring broader issues of free speech, censorship, and the language-power dynamics at LREI and beyond. Readings include works of fiction and drama from different time periods and cultures as well as notable First Amendment cases and current events related to free speech issues.

Texts may include *Lolita* by Vladimir Nabokov, *The Color Purple* by Alice Walker, *Satanic Verses* by Salman Rushdie, *Slaughterhouse Five* by Kurt Vonnegut and others.

Literature of the City (American Literature Seminar)

By the 19th century, New York City was already the largest and most complex mix of people ever to gather in one place. “Literature of the City” examines various “texts” - fiction, poetry, reportage and non-fiction, and other art forms as well – to help students chart and document the range and infinite variety of the

New York urban experience. Students unlock, decode, and celebrate the secret world within worlds that have made up the unfolding experience of New York City and of what it means to be a New Yorker. They explore the intersecting contours of class, race, sexuality and ethnicity that historically inform New York's social and cultural terrain and illuminate its evolving politics and imagination. Theories of the urban experience provide context for the imaginative forays of writers and artists as varied in time period and sensibility as Poe, Whitman, James, Wharton Fitzgerald, Baldwin, Thomas and Ginsburg. Other artists, not so famous, and some even obscure, from a range of imaginative forms of expression, are consulted. Students contribute to the evolving literature of the city with texts of their own – writing, photography, songwriting, painting and performance. Finally, they work on a literary journal and a web site designed to be a gathering place for sharing other student voices and sensibilities.

Queer Identities: Gay and Lesbian Literature (American Literature Seminar)

This course examines the significant legacies of twentieth and twenty-first century writing by lesbian, gay, bisexual, and transgender writers in the US and abroad. Students explore how some of these writers use the intersection of race, class, gender, ethnicity and sexuality as a starting point for powerful storytelling. Other writers use magical realism and history to explore these same themes. Students also look at how identity informs literary, artistic, and political vision. Close readings of a variety of literary texts include poetry, plays, memoir, and fiction. Authors may include Dorothy Allison, Gloria Anzaldúa, Reinaldo Arenas, James Baldwin, Leslie Feinberg, Lillian Hellman, Tony Kushner, Audre Lorde, Cherríe Moraga, Oscar Wilde, Jeanette Winterson, and Virginia Woolf.

Creative Writing: Short Fiction (Writing Intensive)

In this course, students learn the craft of short fiction primarily through their own writing, but also through the reading and discussion of published works. Throughout the trimester, students work on writing and revising several original pieces with attention to character, dialogue, voice, perspective, setting, conflict, and form. The class is conducted workshop style: students regularly share and respond to each other's work. Peer review forms a crucial part of the revision process and leads students to revise their own work in a meaningful way. The process of writing and sharing is necessarily a personal and often challenging one. Thus students are required to respect the risks that

classmates take in their writing. Authors may include: Anne Lamott, Jhumpa Lahiri, George Saunders, Grace Paley, James Baldwin, John Updike, Ernest Hemingway, Raymond Carver, Bharati Mukherjee, Flannery O'Connor, Denis Johnson, J.D. Salinger, Toni Cade Bambara, Gabriel Garcia Marquez, and ZZ Packer.

Discovering the Self: Writing Memoir and Personal Narrative (Writing Intensive)

This course is designed for students who enjoy or want to discover the challenges and rewards of writing memoir and personal narrative. Students follow a writing workshop format to allow students to read aloud and respond to each other's work with the goal of finding their voices on the written page. Each class member is required to write and share during each session. Sharing is conducted "Quaker style," meaning that no one person directs discussion; instead all members invest in leading workshops. Since personal narrative and memoir writing requires students to explore their memories and imagination, taking risks with sharing life stories for the purpose of creating honest, meaningful pieces, is essential. Texts and excerpts by professional writers also serve as a springboard for exploring student lives and experiences.

Playwriting: From Page to Stage (Writing Intensive)

This writing workshop course introduces students to basic concepts of writing for the stage. Through reading a variety of dramatic texts, from classical to contemporary, students learn to identify and analyze various aspects of the playwriting form – characterization, dialogue, plot and setting, conflict, stage directions, and dramatic conventions. Students then demonstrate their knowledge of these elements through writing analytical pieces as well as original monologues, scenes, and short plays. The class is conducted workshop style: students regularly share and respond to each other's work. Peer review and class readings form a crucial part of the revision process. The course culminates with a "Playwrights Showcase" in which students perform each other's scenes.

FOREIGN LANGUAGE

Chinese

Chinese I

In the first year, students use *Chinese Made Easy: Book 1* as the primary textbook. The course covers greetings,

personal introductions, numbers and dates, countries and languages, occupations and work places, modes of transport, and time. Supplemental materials and activities include introduction to Chinese New Year, working with pictograms, calligraphy, and various units exploring aspects of traditional and contemporary Chinese culture such as Beijing opera, modern dance, traditional architecture, acrobatics and virtual travel. The course stresses both spoken and written Chinese with particular emphasis on acquiring basic listening and speaking skills based on contemporary Mandarin usage. The students master 250 Chinese characters, and in order to establish a solid foundation for future learning, particular emphasis is placed on mastery of the 54 radicals, which are an essential prerequisite for using a Chinese dictionary.

Chinese II

In the second year, students use *Chinese Made Easy: Book 2* as the primary textbook. After review, students move on to cover colors and clothing, weather and holidays, hobbies, student's daily life, school subjects and communication standards. Supplemental materials and activities such as calligraphy, and various units exploring aspects of traditional and contemporary Chinese culture not touched upon during the first year, are introduced. The class continues to stress both spoken and written Chinese and listening and speaking skills based on contemporary Mandarin usage. Students master an additional 350 Chinese characters, and add to their mastery of the radicals, which allows them to begin to use a Chinese dictionary. Further, "written style" Chinese is introduced to the students so they can begin to understand the distinction between written and spoken Chinese.

French

French II

This course is an introduction to all skills. The grammatical structure of the language is stressed, along with the development of vocabulary, reading, writing and simple conversation. Equally important is the goal of acquiring confidence while using the language. Students are introduced to the present, past, future and conditional tenses. Grammar, verbs and thematic vocabulary serve as the basis for creating stories and dialogues. Students also study the geography of France, Paris, and Francophone nations around the world.

Texts include: *Amsco I, Premier Livre. Bon Voyage (cultural activities), Le Monstre Dans le Metro* and selected readings.

French III

The main objective of this course is to provide a solid foundation in the basics of all language skills—speaking, writing, reading, and grammar, and listening comprehension—with a strong emphasis on conversation. The tenses covered include, present, passé compose, imperfect, and conditional. The students are introduced to the subjunctive and begin to use it in their writing and speaking. Adjectives, adverbs, nouns, pronouns, negation and idiomatic expressions are also covered. Students are exposed to French literature and culture through selected short stories, poetry and texts. Frequent writing assignments and oral presentations are required. Students also study, research, write about, and present projects on major artists and French Impressionism.

Texts include: *Amsco Workbook level II, Deuxieme Livre. Le Vol de la Joconde (cultural reader).*

French IV

French IV is a synthesis of all language skills – speaking, reading, writing and grammar – with strong emphasis on conversational fluency. Students are expected to achieve a solid understanding of the structure of the language along with the ability to express themselves competently in French. Grammar is studied and reinforced orally in class. Compound tenses, the indicative and subjunctive moods along with personal pronouns, are studied in depth. Frequent writing assignments and oral presentations are required. Students research, write about and present projects on the French provinces and are introduced to French literature.

Texts include: *Amsco III, Troisieme Livre. Les Faux Monnayeurs, and Une Mysterieuse Disparition (cultural reader).*

French V

This is an advanced course in which students explore the use of spoken French through a variety of everyday life situations. Students continue to develop their knowledge of grammatical usage, verb tenses and moods, idiomatic expressions, conversational fluency, reading comprehension and vocabulary. There are regular reading, and writing assignments, along with literary analysis. Students explore the history and culture of the French Caribbean, and have the option of preparing for the AP Language Exam.

Texts include: *Connaissances et Reactions, Prentice Hall, Literature Moderne du Monde Francophone: Une Anthologie.*

Independent Study in French Literature

Following the student's interests, this independent study chooses a period of French and Francophone

literature and conducts an in-depth study, emphasizing critical analysis and interpretation in reference to the historical and cultural context of the times. Examples of areas of concentration include: Les Philosophes: Diderot, Montesquieu, Pascal and Montaigne; The Romantics: Hugo, Chateaubriand, Stendhal and Musset; The Realistic Novel: Balzac, Flaubert and Zola; 19th Century Poetry; Baudelaire, Verlaine, Rimbaud, Mallarme; Litterature Engage: Sartre, Camus, Malraux; 20th Century French Theatre; La Femme Dans la Litterature Francaise.

Spanish

Spanish I

The goal of this course is the development of competency in listening, speaking, reading and writing, moving from simple phrases and sentences towards complex paragraphs and then on to cohesive essays. Emphasis in class is placed on conversation and comprehension, as well as on intensive development of basic vocabulary and grammar, including verb conjugation and usage in the present, preterit, imperfect and future tenses. Students are introduced to Hispanic culture and an appreciation for diversity and vitality of the Spanish-speaking world. The final project is on Spanish and Latin American music.

Texts include: *Amsco Review Text in Spanish — One Year*, Stephen Levy and Robert Nassi; *Look I Can Talk*, Blain Roy; *Vencomigo*, Harcourt & Brace.

Spanish II

This course is a general review of all language skills -listening, speaking, reading, and writing with an emphasis on grammar, vocabulary, and conversation skills. Grammar is reinforced with literary analysis and the study of short stories. Nouns, pronouns, adjectives, adverbs, articles, prepositions, negatives words, exclamations, verb phrase/usage, and verb tenses: present, preterit, imperfect, present perfect, pluperfect, future, and commands, are studied. There is intensive study of Hispanic culture and Spanish speaking communities around the world. The final project is on Spanish and Latin American painting.

Texts include: *Amsco Review text in Spanish*, by Stephen Levy and Robert Nassi; *España Cuenta (Short stories)*, Edelsa; Selected readings.

Spanish III (Advanced)

This course develops a strong practical foundation in the language by reviewing language skills, listening, speaking, reading and writing, and placing an emphasis on conversations skills. Grammar is studied

and reinforced with literary analysis and the study of short stories. It includes the study of prepositions, conjunctions, adverbs, and verb tenses: present perfect, pluperfect, future perfect, conditional perfect, present subjunctive, imperfect subjunctive, present perfect subjunctive, past perfect subjunctive, and passive constructions. Frequent writing assignments, journal entries, and oral presentations are required. The final project is on Spanish and Latin American cinema.

Texts include: *Amsco Review Text in Spanish*, by Stephen L. Levi and Robert Nassi; *America Latina Cuenta (Short stories)*, Edelsa; Selected reading.

Spanish IV

This course continues to strengthen oral communication and reading comprehension skills while reinforcing grammatical knowledge. Emphasis is placed on the use of idiomatic expressions from around the Spanish-speaking world. Writing and research skills are also developed through looking at a selection of Spanish and Latin American artists and poets, including Dalí, Picasso, Velázquez, Rivera, Kahlo, Lam, Botero, Machado, Paz, and Neruda. Frequent journal entries improve writing skills and serve to collect information for a final research project on an artist of choice.

Texts include: *Amsco Review Text in Spanish*, by Stephen L. Levi and Robert Nassi; *Cosas que Pasan (Myths and Folklore)*, Edelsa; Selected reading.

Spanish V

This course is intended for students who have a strong background in vocabulary and grammar, and emphasizes increasing command of grammatical usage, idiomatic expressions, conversational fluency and the use of verb tenses and moods, including the conditional and the subjunctive. Designed for students who want to achieve and demonstrate fluency in the language, major emphasis is placed on Hispanic culture through a variety of authentic materials, such as journals, videos, literature, and films. Authors read include García Márquez, Rulfo, Neruda, Borges, Cortázar, Mistral, Cela, Matute, and Lorca. The final project is on Spanish and Latin American literature.

Texts include: *Amsco Review Text in Spanish*, by Stephen Levy and Robert Nassi; *A escena! (Short plays/dramatizations)* Edelsa; Selected readings.

Spanish 12

This course strengthens reading and comprehension skills while reinforcing grammatical knowledge. Writing and research skills are developed through looking at a selection of Latin and Peninsular painters,

poets and artists, including Dali, Rivera, Kahlo, Guy, Greco, Machado, Paz, and Neruda. Frequent journal entries hone writing skills and serve to collect information for a final research project on an artist of choice.

Text: *Amsco Review Text in Spanish — Four Years*, Stephen Levy and Robert Nassi.

Independent Studies in Peninsular and Latin American Literature

Peninsular Literature

The Golden Age: *Don Quixote*, Cervantes; *The Galatea*, Lope de Vega; *Life of the Windler*, Quevedo.

The Generation of 1898: The Tragic Sense of Life, Unamuno; *The Tree of Knowledge*, Pio Baroja; The Poetry of Antonio Machado.

Lorca and the Generation of 1927: *The House of Bernarda Alba*, Garcia Lorca; The Poetry of Garcia Lorca, Rafael Alberti and Miguel Hernandez.

Latin American Literature

The Poetry of the 1800's: The Poetry of Ruben Dario, Ferderico Gamboa and Jose Marti.

The Early 1900's: The Poetry of Gabriela Mistral; *The Violent Land*, Jorge Amado; *Dona Barbara*, Romulo Gallego.

The 'Boom' Generation: *One Hundred Years of Solitude*, Garcia Marquez; *The War of the End of the World*; Vargas Llosa; *Hopscotch*, Julio Cortazar.

HISTORY Required Courses

The Making of the Modern World (Ninth Grade)

The Making of the Modern World is a yearlong course required for all Ninth Graders. The central theme of the course is social justice and the development of a global understanding of human rights. The course is designed to encourage students to think historically, comparatively and in an interdisciplinary manner about the Western and non-Western cultures covered. Disciplinary perspectives include those from literature, history, philosophy, anthropology, sociology, political science and the fine arts. Students interpret primary

documents and artifacts from diverse eras and cultures, and enhance their understanding with information from secondary sources.

Topics in American History (Tenth Grade)

This yearlong course begins with the settlement of the Americas and follows the development of the British colonies through the period of the American Revolution. Great emphasis is placed on the Constitution and the early national period. In the 19th century, the focus is on the story of an expanding people and an expanding economy. Topics include: Manifest Destiny, the Mexican-American War, the annexation of Texas, the 1850's and the prelude to war, the Civil War and Reconstruction, urbanism, industrialism, and immigration, the Spanish-American War and the emergence of America as a world power. Topics in 20th century American history are: the Progressive era (1914 – 1920); World War I; the 1920's and the jazz age; the New Deal and the depression; World War II and the Cold War; Martin Luther King Jr., Malcolm X and the civil rights era; Korea, Vietnam and the Gulf War I & II.

Gotham – The Global City (Eleventh Grade)

Students in this one-trimester class analyze continuity and change in the history of New York City from its colonial beginnings to the global city of today. Approaches to understanding urbanism include intensive fieldwork, readings in scholarly literature, fiction and journalism, and primary source work in municipal records and original newspapers. Attention is given to the successive episodes of population influx, technological and institutional growth, political and institutional change, and the evolving national and international context - through which New Yorkers have pursued and defined the American Dream. Topics include: the revolutionary city, the rise of the port of New York, immigration and industrialization, the Greenwich Village-Harlem Renaissance, the rise of the suburb and the decline of the central city, the city as command and control center of American corporate culture and the gentrified city. The course concludes with an examination of the contemporary city, exploring urban poverty, race, de-industrialization and the post-9/11 economic, social, and cultural environment.

Electives (Eleventh and Twelfth Grades)

Social Science Courses – Students must take at least one of these courses to graduate:

Wealth and Poverty: The American Economy in the 21st Century

Economics is the study of how people satisfy their needs and wants through the activities of production, consumption and exchange. These economic activities require the allocation of time, energy and scarce material and financial resources. This course provides a general introduction to the discipline of economics, including both microeconomics and macroeconomics. Students also develop an understanding of how economic principles and analysis can be used to study social problems and issues. Topics include supply and demand, comparative advantage, inflation, unemployment, economic growth, money and the banking system. Students are expected to complete daily assignments and maintain a consistent grasp of current events.

20th Century Europe

At the opening of the 20th century, Europe had reached a zenith. Its colonial possessions covered much of the world. Investments and trade made its prosperity unparalleled. Its culture set the standard in music, art, literature, sculpture and science. After the defeat of Napoleon in 1812, European conflicts/wars were brief and localized. By the late 1940s, however, much of Europe lay in ruins, after two disastrous world wars. Its empire was lost. Cold War came fast on the heels of the defeat of Fascism. The nuclear threat loomed despite renewed prosperity. Symbolically, the tearing down of the Berlin Wall in 1989 reunited Eastern and Western Europe. This course examines the wars and the emergence of communist Russia and Nazi Germany. Students evaluate Europe's role in the emerging 21st century through a variety of readings and writing assessments.

Economics, Class and Race

This course introduces students to the basic principals of economic systems in America from the medieval times to the present. Particular focus includes discussions on how the needs of each economic system throughout history influenced the American class system, and impacted the economic status of different racial groups. Written text, films and guest speakers are used to provide information, promote

critical thinking and to also provide students with different perspectives on generated themes. Towards the end of the trimester, students begin to explore the systemic changes in the global economy and the impact of those changes on the American economy. Writing assignments include journal entries and a short reflective piece. A final research paper/artistic project is also required.

Introduction to Law

This course introduces students to the origins of our legal system and to the judicial branches of the governments of the United States and the State of New York. Students examine both civil and criminal law and observe trials in both the state and federal courts in Manhattan. The course focuses on constitutional law, examines civil liberties, rights of criminal suspects, and civil rights with special attention to issues of gender, sexual orientation and race. There are a variety of assessments: exams, a paper, and class debates on such issues as abortion, affirmative action and capital punishment. Students also keep a journal based upon observation of court trials. The course invites visitors to the class such as judges, police officers, public defenders and prosecutors, to speak about their roles in the judicial system.

Government and Politics

A large percentage of government officeholders, state and national, are seeking election/re-election to the U.S. House of Representatives in 2006. This course is designed to acquaint students with the specific responsibilities of elected government officials including the President of the United States. Students become better acquainted with the powers and responsibilities of the executive branch (President and Cabinet) the legislative branch (Congress: House and Senate) and the judicial branch (Supreme Court). The course begins by briefly looking at the history of tension between the three branches. Students then devote part of the course to working for the election of a candidate of the student's choice. The course also follow the close races in Congress across the nation, as well as the Democrats challenge to gain control of both House and Senate in 2007. Finally, students present their findings at an all-school assembly.

Human Rights

This course examines the developing law of international human rights, with an emphasis on international human rights agreements, international and regional human rights courts and tribunals,

and international human rights organizations, both governmental and non-governmental. This course examines the postwar emergence of civil and political human rights, the development of social and economic human rights, and the more recent articulation of collective and group human rights. It also explores the normative justifications for enforcing human rights beyond the bounds of national sovereignty and the challenges to these justifications under the forces of globalization. Students are expected to complete daily assignments, major assessments, and maintain a consistent grasp of current events.

Regional and Cultural History Courses

Students must take at least one of these courses to graduate:

Japan, China, Korea, India

Students explore Asian cultures in history, literature, poetry, art and religion in this course. Through a variety of readings, short stories about life and politics in Asian societies in both the classical and modern era, and classic texts on Buddhism, Confucianism, and Daoism, students begin their study. The class then visits Urasenke – an authentic Japanese teahouse in Manhattan - and experience with a Japanese tea master, the classic Japanese tea ceremony. Students go on to read about and examine the cultural and historical importance of the Silk Road – the centuries old passageway between East and Central Asia and the Middle East and Europe. Students also experience Japan’s Kabuki Theater and China’s Peking Opera and view both classic and modern arts in Asia at the Asian Society, the China Institute, Japan Society and the Metropolitan Museum of Art. Major assessments include writing essays and research reports on topics in Asian Studies.

Middle East and Africa

This course explores modern life in the Middle East. Students investigate the Israeli-Palestinian conflict in literature, history, poetry and film, and compare and contrast the primary texts of the three great monotheisms: Judaism in the Old Testament, Christianity in the New Testament and Islam in the Koran. They also learn about Sufi religious visions and read the classic poetry of Rumi – the greatest of the Sufi poets and mystics. The second part of the course requires students to read about the native

cultures and traditions of tribal Africa. They examine both historical and literary texts that describe the transition from European colonial domination of Africa in the late 19th and 20th centuries to the era of African nationalism and independence in the 1950’s and ‘60’s. Students also experience, listen to, and study the principles of traditional African music and dance. Major assessments include writing essays and research reports on topics in Middle Eastern and African studies.

Caribbean and Latin America

This course examines cultures and histories of Latin America from the 15th to the 21st centuries. Students study the explorations and conquests of the Conquistadors in Mexico and Peru, the emergence of mestizo cultures in Latin America and the Caribbean and lastly, the revolutionary uprising of the emerging nations of the New World against their colonial oppressors. Readings include primary historical, literary, political and poetic texts. Students investigate and write essays and research reports on topics in Caribbean and Latin American history and literature.

American Culture and Ideas in the Twentieth Century

This course examines American film, music, and high and low culture in each decade of the twentieth century. Students are asked to think about what was innovative and new in the arts in the twenties, the thirties, the forties, the fifties, and so on. Who were the innovators and the tastemakers? Who brought us new sounds in music, new colors, designs and structures in the arts, new images in photography, and new subjects and themes both in films and on television? Students explore the innovative and creative interaction between technology and culture in the twentieth century.

Modern Art

This course on the history of aesthetic modernism in western European and American culture, asks students to determine the turning points in 19th and 20th century European and American modernism. Students study Monet, Manet and the Impressionists and Cezanne, Van Gogh, Gauguin and the Post-Impressionists; Picasso, Braque and the Cubists and Matisse, Kirchner, Marc and the French and German Expressionists; Marinetti, Boccioni and the Futurists and Tristan Tzara, Marcel Duchamp and the Dadaists and Surrealists; Jackson Pollock, Mark Rothko; and the American Abstract Expressionists and Andy Warhol,

Roy Lichtenstein and the Pop artists; Daniel Flavin, Donald Judd and the Minimalists and Bill Viola and video art. Students read, discuss and write about their findings and visit New York's finest museums and galleries.

Additional Electives

Gotham II-The Living City (Twelfth Graders only)

This is an advanced course in Urban Studies. Students develop the vocabulary and conceptual framework necessary to think about, compare and analyze cities and patterns of urban development throughout history. Students begin by looking at seismic shifts-economic, cultural, political and social-that drove urban development during the modern era and which continue to drive it around the world today. With the help of urbanists like Robert Caro, Jane Jacobs, Roberta Brandes Gratz, James Howard Kunstler and others, students look at key episodes in the history of New York City beginning at the dawn of the modern era. Then, as a class, an in-depth study of one of the most famous neighborhoods in the world, Greenwich Village, with a special focus on critical episodes in the neighborhood's developing identity, is completed. Each student then develops a case study of another neighborhood in New York. Finally, throughout the course, with the help of urban journalists as Pete Hamill, Phillip Lopate, Joseph Mitchell and others, students develop their own unique brand of urban journalism, walking and writing about New York, capturing, through the lens of their own concerns, backgrounds and sensibilities, the experience of the living city.

Race, Class, and Gender in American Culture (Twelfth Graders only)

The title of this course stands for a larger umbrella of themes explored throughout the term. Each year this course is offered, a new topic or set of topics is selected that connect to the themes. Last year, the topic was education and the ways in which issues of race, class, gender, ethnicity, sexuality, body image, language and religion inform and shape student and teacher experiences in schools. This year, the course includes themes such as youth activism, immigration, and class/race issues. Some class discussions rely on an understanding of certain theories such as race and gender theory, and sometimes on disciplines that have emerged in the last thirty years such as cultural and ethnic studies, women's studies, and gay

and lesbian studies. The readings for this course are a hybrid of literature, history, politics, psychology, education, theory and criticism.

Optional Course

Advanced US History (Eleventh Grade)

This seminar is for students who have already taken US History and want to conduct advanced work on selected topics as well as prepare for the SAT II Achievement Test or the Advanced Placement Examination. This class may be taken in addition to – not in place of – the history electives.

MATHEMATICS

Algebra/Geometry, Algebra/Geometry (Advanced) (Ninth Grade)

In both Algebra/Geometry courses, students cover the basic elements of these two branches of mathematics, both separately and as the topics relate to one another. Students approach algebra from a functional point of view, honing their manipulative skills through an analysis of basic linear and quadratic relationships. In their study of geometry, students study properties of polygons and other shapes and start to develop a sense of mathematical proof. The advanced class proceeds farther into both geometry and algebra and also covers topics in more depth. Students explore these topics through investigations while working individually and as a class; projects and real-world applications are heavily emphasized. Students engage in communication about mathematics orally and in writing while simultaneously building upon their math skills and the application of these skills. Technology is integrated into the curriculum, and each student works with various computer applications (especially *Geometer's Sketchpad*) as well as with the TI-83 Plus graphing calculator.

Texts include: *Discovering Algebra: An Investigative Approach*, Jerald Murdock, Ellen Kamischke, and Eric Kamischke; *Discovering Geometry: An Investigative Approach*, Michael Serra

Geometry/Algebra II, Geometry/Algebra II (Advanced) (Tenth Grade)

In both of these courses, students continue their study of the related topics of algebra and geometry, moving into the traditional topics covered in an Algebra II class. Students also continue their study of geometry, moving on to the study of circles and coordinate geometry. This leads naturally to the study

of conic sections and an introduction to trigonometric functions. Students also complete their study of quadratic functions and begin to look at exponential functions (the advanced class does a more thorough investigation of exponential functions, and begins to study logarithmic functions as well). Students begin to look at data and how the various functions they have studied can model data collected in real-world situations. Students have the opportunity to reflect on the processes of mathematics in class discussions and in writing, while simultaneously building their repertoire of math skills and their capacity for applying these skills. Once again, topics culminate in significant projects. Technology is an important aspect of the curriculum, and each student works with various computer applications as well as with the TI—83 Plus graphing calculator.

Texts: Discovering Geometry: An Investigative Approach, Michael Serra; Discovering Advanced Algebra: An Investigative Approach, Jerald Murdock, Ellen Kamischke, and Eric Kamischke; Advanced Algebra Through Data Exploration: A Graphing Calculator Approach, Jerald Murdock, Ellen Kamischke, and Eric Kamischke

Algebra II/Topics in Precalculus (Eleventh Grade)

Students in this class review quadratic functions and complete their study of exponential and logarithmic functions, as well as rational functions. Trigonometric functions and right triangle trigonometry are also covered in some depth. Students continue to approach functions from a modeling standpoint, learning to discern which types of functions to use as mathematical models in different situations. Technology continues to be integrated into the curriculum, and each student works with various computer applications as well as with the TI—83 PLUS graphing calculator. Major units once again culminate in significant projects, and mathematical communication is emphasized.

Texts include: Discovering Advanced Algebra: An Investigative Approach, Jerald Murdock, Ellen Kamischke, and Eric Kamischke; Advanced Algebra Through Data Exploration: A Graphing Calculator Approach, Jerald Murdock, Ellen Kamischke, and Eric Kamischke

Precalculus (Eleventh Grade)

This course is a rigorous treatment of functions, introduced through data analysis, in order to prepare students for calculus. Students develop a tool-kit of linear, quadratic, exponential, logarithmic, and trigonometric functions, and then focus on how these functions can be transformed into numerous other functions. Topics emphasized include domain, range, end behavior, and roots in functions and study how transformations affect these characteristics.

Projects, real-world applications and mathematical communication are again heavily emphasized.

Text: Precalculus with Trigonometry, Foerster.

Data Analysis (Twelfth Grade)

This course prepares students to reason and communicate mathematically, use mathematics to solve problems, and make connections between mathematics and the world around them. They are encouraged to explore and to make sense of their experiences with mathematics by integrating and linking algebra with statistics, data analysis, functions and probability. Students develop their conceptual understanding of mathematics by doing activities embedded in contextual settings. For example, students learn the principles of probability and how statistics relates to probability through a study of basic gambling games. Wall Street is studied in depth, and students complete a major stock market project. Students collect and generate data, develop and analyze mathematical models, explore patterns and relevant questions, and make and defend predictions. The emphasis is on interpretation, analysis and making sense of the problem, the process and the answer. All units culminate in major projects.

Texts include: Understanding Wall Street, Jeffrey B. Little; Practical Statistics by Example, Sincich et al.

Calculus (Twelfth Grade)

This course covers traditional calculus topics from a function and graphing approach. The use of the TI—83 graphing calculator enables students to develop their sense of the derivative and integral and make conjectures about the behavior of these tools through problem-solving investigations. Problems encountered in this class have a real-world context, which enables students to practice interpreting mathematical models and the information they provide. Topics covered include the derivative, maximum-minimum problems and related rates problems, derivative functions, integration and methods of integration, limits, and an introduction to differential equations. Major projects include a legal brief using the basic concepts of limits, a population project which allows students to predict the future population of a country of their choosing by using modeling and techniques of differentiation, and an exercise in calculating real-world volumes by using integration by disks, shells and washers.

Text: Everyday Calculus Through Applications, The North Carolina School of Science and Mathematics, Everyday Learning Corporation

PHYSICAL EDUCATION, ATHLETICS AND LIFE ISSUES

Physical Education

Students take physical education each year of high school. They may select from the offerings in the Physical Education program or they may participate on an interscholastic athletic team (see below). Physical Education offerings meet two times per week and focus on developing lifelong habits in aerobic fitness, strength, flexibility and healthy diet. Offerings include: Aerobics, Yoga, Cardio-strength training, Karate.

Athletics

Students may also participate in the following interscholastic sports:

Volleyball (Girls)
Soccer (Coed)
Cross-Country (Coed)
Basketball (JV and Varsity, Boys and Girls)
Softball (Girls)
Baseball (Boys)
Track and Field (Coed)
Tennis (Coed)
Golf (Coed)

The policy of the school is that everyone who goes out for the team is included on the roster and gets a chance to play. High School teams have been very successful in recent years in competition with other schools in the Independent School Athletic League. In addition to the Thompson Street Athletic Center, LREI uses a variety of fields and facilities in the city, from the East River fields for softball, to Downing Stadium for Soccer, to Van Cortland Park for Cross Country.

Life Issues

The high school years are a transition period during which students encounter increasingly complex and challenging issues that have to do with the development of their own identity and values, as well as the personal resources and knowledge they need to negotiate the adult world around them. The Life Issues class provides students with opportunities to explore these complex issues in a safe, respectful environment. Each student keeps a journal that provides a medium for processing their responses to discussions about law, sexuality, gender

and peer relations, self-awareness and self—esteem, substance use, abuse and dependency, diversity and social justice. Journal writings serve as a vehicle for processing issues through dialogues, unsent letters, lists and brainstorming. The class is organized around guest speakers from such institutions as The District Attorney's Office, Freedom Institute and Planned Parenthood. Ninth Graders are enrolled for two trimesters and Tenth Graders are enrolled for one trimester.

SCIENCE

Biology, Chemistry, Physics I (Ninth Grade)

This is an introductory class, which covers topics in biology, chemistry and physics, providing the basic skills and frames of reference that enable students to do more advanced work in the life and physical sciences. The course combines and integrates the principles of the three disciplines. The class stresses the understanding of important biological concepts and vocabulary, the scientific method and the interrelationship between biology and other disciplines. Areas of study include characteristics of living things, the cell, cell reproduction, genetics, DNA technology, evolution and ecology. The focus of chemistry in Ninth Grade is inorganic chemistry. Students cover such topics as matter and energy, and fundamentals such as the classification and organization of matter, atomic structure, formulas and reactions, acids, bases and bonding. Topics in physics include mechanics, heat and light. One or more research papers are a requirement of the course.

Texts include: Modern Biology, Albert Towle; Modern Chemistry, Holt, Rinehart & Winston; Conceptual Physics, Paul G. Hewitt.

Biology, Chemistry, Physics II (Tenth Grade)

The coordinated and integrated approach to the sciences continues in Tenth Grade with an emphasis on the interrelationships between chemistry and mathematics, biology and physics, as well as the importance of science in society and technology. Organisms are studied with reference to their taxonomy, characteristics, and economic and ecological importance. The skills and knowledge of chemistry, developed the previous year, provide the basis for more advanced concepts within previously studied topics including chemical bonding, the concept of pH (acids and bases) and the laws of gasses. More advanced concepts in chemistry are introduced, including carbon and its compounds, the chemistry of gasses, chemical equilibrium, oxidation

and reduction. Students explore in depth the relationship of the ecosystem to the changing physical environment, development of energy and living things, and the interrelationship of major ecosystems to the world's economy and politics. Students also explore such topics in physics as energy and sound wave theory, which are linked in interdisciplinary fashion to biology and chemistry. A research paper and exhibition are required.

Texts include: *Modern Biology*, Albert Towle; *Modern Chemistry*, Holt, Rinehart & Winston; *Conceptual Physics*, Paul G. Hewitt.

Advanced Biology (Eleventh Grade)

Advanced Biology is designed to be the equivalent of an introductory college course and to provide students with the conceptual frameworks, factual knowledge and analytical skills necessary to deal critically with the rapidly changing science of biology. Students are encouraged to take the SAT II subject test and may elect to take the Advanced Placement Examination. The first trimester covers evolution and genetics, RNA and DNA structure and function, gene replication and mutation, viral structure and replication and nucleic acid technology and its applications. The second trimester deals with anatomy, physiology and ecology.

Texts include: *Biology*, Campbell, Mitchell and Reece.

Advanced Chemistry (Eleventh Grade)

Advanced Chemistry is designed to prepare students to take the SAT II subject test in Chemistry. It builds on the skills and knowledge acquired in the earlier Life and Physical Sciences I and II courses, going in greater depth into the areas studied in the prior courses and introducing many new advanced topics. Emphasis is placed on the nature of bonding, acids and bases, nuclear chemistry and radioactivity, chemical kinetics, thermodynamics and stoichiometry. Students are encouraged to think independently to respond to questions that require original reasoning. An essential part of the course is a weekly lab exercise designed to give students further insight into these concepts.

Text: *Visualizing Matter*, Tocci, Viehland.

Astronomy (Eleventh Grade)

To see the moons of Jupiter through a telescope, to observe the mountains and craters of the Moon, or to glimpse a distant star cluster is more exciting than to read a description in a book. This course provides an introduction to the theory and practice of technical amateur astronomy. It is open to students in any mathematics class. Topics include: introduction to the historical development of astronomy; telescopes; the

phenomena that can be seen in the urban night sky; the creation of the cosmos: its explosive evolution, present structure, and ultimate fate; the birth, life, and eventual death of the solar system; the nature of stars and galaxies; the structure and evolution of our Milky Way; the relationship of modern astronomical ideas to other cultural disciplines. There are field trips to Hayden Planetarium. The classes provide the necessary background material, and lab sessions provide hands-on observing activities with binoculars and telescopes when weather permits; and with maps, globes, and astronomical software in inclement weather.

Physics (Twelfth Grade)

This course takes both a theoretical and hands-on approach to the study of physical phenomena. Lab work is an integral part of the program, designed to give students an insight into the working relationship between experiment and theory. A small number of unifying principles, like the conservation laws and wave/particle theory, form the basis for the structure of the course. Thoroughness of understanding, rather than superficial encyclopedic coverage, is stressed. Familiar analogies, using everyday phenomena and common toys, are used to increase insight, while the essential role that mathematics plays in physics is emphasized, using concepts and techniques previously covered in the students' math classes.

Text: *Physics*, Zitzowitz, Neff.

Environmental Science (Twelfth Grade)

This course is an introduction to the field of Environmental Studies. Topics include the fundamental constituents of energy and matter that comprise the biosphere, the dynamics of human populations, renewable and non-renewable resources and the degradation of the environment and its impact on human health. Other topics include higher order environmental effects and interactions such as habitats and bio-diversity and the economics and geopolitics of sustainable development. Students conduct laboratory and field investigations, utilize appropriate techniques and instrumentation, and construct and apply conceptual models to the solution of environmental problems. Students compile a portfolio on a variety of environmental issues. A research paper and an exhibition on a court case involving environmental issues are required.

Texts include: *Environmental Science*, Karen Arms.

Experimental Science in History (Twelfth Grade)

In this course, students examine a few basic but profound inquiries that have existed for hundreds of years and look at the development of major scientific ideas. At each stage, students examine how an idea influenced understanding of key questions of nature, and how an explanation, which may have seemed incorrect might have been seen as powerful and logical in its time.

TECHNOLOGY

Introduction to Technology (Ninth Grade)

These classes introduce students to the basic skills needed to use the computers in the Tech Center, the school's email and educational network, various software applications, and the World Wide Web. Students master the basic elements of Microsoft Word, Excel and PowerPoint, and develop web sites. In the second course, they perfect these skills and then move on to applications determined by the needs and interests of the class. Final projects in both courses include a personal portfolio of work.

Intermediate Technology (Tenth Grade)

See Introduction to Technology (Tenth Grade).

Computer Graphics

Graphic design is as old as written language itself. From illustrated manuscripts in the Middle Ages to contemporary web pages and CD covers, graphic design has been used to convey meaning that is not implicit in the literal content of language itself. Using Adobe PhotoShop, PageMaker, scanners, digital photography and file management programs, students learn the basics of graphic design. Each student produces a portfolio of design pieces along with written analyses that explore how design strategies are intended to affect the audience.

Computer Applications

Students learn to use computer applications such as Microsoft Excel, Adobe PhotoShop, HTML, Filemaker Pro and Macromedia Flash for their academic and personal needs.