

# **HERBERT H. LEHMAN HIGH SCHOOL**

**COURSE CATALOGUE  
2017-2018**



# ADMINISTRATION DIRECTORY

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## ENGLISH DEPARTMENT

### ENGLISH CORE COURSES

#### **EES81: Freshman English**

(5 periods per week - Honors version available - EES81H)

This course is designed to help students develop key writing skills and understand the essential elements of the writing and revision process. Over the course of the year, students will become more adept at writing in a variety of forms, including literary analysis, persuasive argument, narrative and descriptive writing, and research. The emphasis will be on producing writing that is clear, concise and thoughtful.

#### **EES83: Sophomore English**

(5 periods per week - Honors version available EES83H)

This course is designed to consolidate students' skills of literary analysis through a study of central classics of Western Literature. In the first term, students explore the theme of man's quest for identity. In the second term, students will explore the controlling idea of man vs. society. In addition, students follow a year-long intermediate course of vocabulary and grammar study. **Qualified students will take the ELA Common Core Regents, a requirement for graduation.**

#### **EES85: Junior English**

(5 periods per week)

This course is the study of American literature since 1877. The study of grammar and composition is incorporated into literature analysis. Students survey American literature representing these literary types: short story, novel, poetry, drama, and essay. **This course culminates in the ELA Common Core Regents, a required regents for graduation.**

#### **EES85X: Advanced Placement Language & Composition**

(5 periods per week - Juniors only, special permission required)

This Advanced Placement course engages students in careful reading and critical analysis of works from different genres in literature. Emphasis is placed upon the mastery of the expository essay and the tasks of defining how particular elements of fiction and language elucidate theme and meaning. Students in this class may take the Advanced Placement test in May. Core Texts:

*Prerequisites: Minimum overall average of 85 and overall English average 88 or permission of department*

### **EES87: Senior English**

(5 periods per week)

This course explores a number of classic works of literature including philosophy, comparative mythology, Machiavelli, Shakespeare, Romanticism interspersed with current and germane newspaper and media articles.

### **EES87X: Advanced Placement Literature & Composition**

(5 periods per week - Seniors Only, special permission required)

This Advanced Placement Course prepares students for college writing; it is designed to help students become skilled readers of a wide variety of prose styles and to become skilled writers who compose for a variety of purposes. The main objective of the course is to enable students to read complex texts with understanding and to write prose of sufficient richness and complexity to communicate effectively with mature readers. Students in this class may take the Advanced Placement test in May. Core Texts:

*Prerequisites: Minimum overall average of 85 and overall English average 88 or permission of department.*

## **ENGLISH ELECTIVE COURSES**

**ECS61: Film Studies 1**

(5 periods per week)

Description to follow

**ECS63: Film Studies 2**

(5 periods per week)

Description to follow

**ECS65: Film Studies 3**

(5 periods per week)

Description to follow

**EWS21QCW: Creative Writing**

(5 periods per week)

Description to follow

## MATHEMATICS DEPARTMENT

### Core Courses

#### **MES21: Algebra I Common Core**

(10 periods per week -- Honors Version Available MES21H)

Students will develop a thorough understanding of functions of various types: linear, quadratic, exponential, and absolute value. Applications of these functions to real world situations are represented. The study of statistics is also applied to real world situations. This course terminates in the Algebra 1 Common Core Regents.

#### **MES33: Algebra I Common Core (3 of 3)**

(10 periods per week)

Students will complete their study of Algebra and take the Algebra Regents Exam. Students who successfully complete the course will be programmed for MGS21 in the Spring. Other students will be programmed for MES44 to enhance their Algebra skills.

#### *Regents Courses Fulfilling the Advanced Math Requirement*

#### **MGS21: Geometry Common Core**

(5 periods per week -- Honors Version Available MGS21H)

Students will study Euclidean geometry with a more detailed emphasis on inductive and deductive reasoning and will be asked to demonstrate their knowledge of the material primarily by way of proof. Topics include properties of points, lines, rays, planes, polygons, circles, spheres, congruence, parallelism, perpendicularity, similarity, transformations, basic trigonometry, calculation of area/perimeter/volume, and the Pythagorean theorem along with other theorem work. This course terminates in the Geometry Common Core Regents.

#### **MRS21: Algebra II Common Core**

(5 periods per week)

This fast-paced course is intended for math students who need little to no Algebra I review of basic concepts like graphing of lines, substitution/elimination, solving equations, exponents, factoring, and the quadratic formula. In this course, students study and perform operations with all functions such as linear ones with a two and three-dimensional analysis, quadratic functions, exponential and logarithmic functions, and all trigonometric functions and their inverses. Topics

include: function vocabulary, Cramer's Rule, linear programming, introduction to vectors, solving quadratic equations and analyzing them graphically with real or imaginary solutions, exponential growth and decay, all logarithm properties, financial applications, sequences and series, probability through combinations and permutations, trigonometric ratios, formulas, the unit circle, and the law of sines and cosines. This course terminates in the Algebra II Common Core Regents.

### **MRS32: Algebra II Common Core**

(5 periods per week)

Students in MRS21 during Spring 2017 should register for this course. No other students may enroll in this continuation of the Algebra II Common Core sequence.

### *Elective Courses Fulfilling the Advanced Math Requirement*

### **MSS21: Introductory Statistics**

(5 periods per week -- students who are preparing to retake the Algebra Regents Exam will register for MSS21QA)

This course will introduce students to the fundamentals of data analysis. No prior coursework in calculus or statistics is expected. Topics to be covered include: descriptive statistics, inferential statistics (including  $t$ ,  $F$ , chi-square and regression), hypothesis testing, and graphical representation. This course is ideal for students who want an introduction to statistics that is less formulaic and computational than that offered by AP Statistics. *Prerequisites: At least two credits of Algebra*

### **MOS21CME: Applied College Math**

(5 periods per week)

This course will give students an introduction to applied mathematics, using a text commonly used for Liberal Arts Mathematics in local colleges, *Excursions in Modern Mathematics* by Peter Tannenbaum. Topics include social choice theory, management science, growth, and shapes and forms.

*Prerequisites: Must have passed the Algebra Regents Exam*

### *Advanced Placement Courses*

### **MCS21XAB: Advanced Placement Calculus AB**

(10 periods per week)



Calculus AB is a college-level courses offered to students who have completed four years of high school mathematics or the equivalent. The courser covers the first term of a typical college calculus sequence. Students may receive college credit and/or advanced standing in college placement depending upon the mark received on the required College Board Advanced Placement exam given in May. **This course terminates with the AP Exam.** *Prerequisites: Minimum Math average of 90 or permission of department*

### **MCS21XBC: Advanced Placement Calculus BC**

(10 periods per week)

Calculus BC is a college-level courses offered to students who have completed four years of high school mathematics or the equivalent. The courser covers the first year of a college level calculus sequence. Students may receive college credit and/or advanced standing in college placement depending upon the mark received on the required College Board Advanced Placement exam given in May. **This course terminates with the AP Exam.** *Prerequisites: Minimum Math average of 90 or permission of department*

### **MSS21X: Advanced Placement Statistics**

(5 periods per week)

The AP Statistics course is the equivalent of an introductory statistics course offered in colleges and universities. The course deals with the statistical methodology used in research, data analysis, and the theoretical basis for these statistical techniques. It includes probability distributions, hypothesis testing and linear regression. Students interested in mathematics, engineering, business, or the biological or social sciences, and who have shown evidence of mathematical proficiency, are excellent candidates for this course. The material covered is extremely valuable to those planning to engage in research in science, mathematics or the social sciences. The course may be taken in junior or senior year. Students may receive college credit and/or placement depending upon the mark received on the required College Board Advanced Placement exam given in May. **This course terminates with the AP Exam.** *Prerequisites: Minimum Math average of 85 and passed all Math Regents exams with an 80 or better, or permission of department.*

### **MKS21X: Advanced Placement Computer Science Principles**

(5 periods per week)

AP Computer Science Principles introduces students to the foundational concepts of computer science and challenges them to explore how computing

and technology can impact the world. With a unique focus on creative problem solving and real-world applications, AP Computer Science Principles prepares students for college and career. *Prerequisites: Junior or Senior standing and a minimum average of 85 in Geometry, or permission of department.*

*Elective for First-Year Students*

**MKS21: Introduction to Computer Science**

(3 periods per week - backs with Lab and Advisory - .6 credits each semester)

**DESCRIPTION GOES HERE**

## SCIENCE DEPARTMENT

### BIOLOGICAL SCIENCE COURSES

#### SLS21: Living Environment

(6 periods per week: 4 recitation and 2 lab -- Honors Version Available SLS21H)

This is a general introductory biology course encompassing the New York State Regents Syllabus in the Living Environment. Emphasis is placed on developing concepts through the scientific method and laboratory exercises are stressed. The Living Environment Regents is taken in June.

### LIFE SCIENCE ELECTIVE COURSES

#### SWS21: Environmental Science

(5 periods per week: 4 recitation and 1 lab)

This class provides an in-depth look at the field of environmental science. Topics include ecology, population biology, meteorology, water and air pollution, global climate change, renewable and nonrenewable sources of energy, and environmental economics and policy. The course is offered to juniors and seniors who have taken both biology and chemistry and are interested in environmental science. The class will be centered around project-based units and activities.

*Prerequisites: At least a sophomore standing and passed at least one Science Regents exam*

#### SWS21XEN: Advanced Placement Environmental Science

(5 days a week: 4 recitation and 1 lab)

This course follows an introductory-level college syllabus. It provides students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and man-made, and to evaluate alternative solutions for resolving them. Students have the opportunity to work on individual and group research projects, use computer technology and Internet resources, and visit natural areas in New York City parks. Laboratory investigations, debates, and simulations are included in the course activities. The course can be taken for college credit and/or Advanced Placement credit. **This course terminates with the AP Exam.** *Prerequisites: Minimum overall average of 85, a minimum average of 88 in Living Environment and 85 average in Chemistry. Passed Living Environment and Chemistry Regents exams.*

#### SWS21XP: Advanced Placement Psychology

(5 periods per week)

Topics studied include neuroscience and behavior, child development, adolescence and adulthood, sensation, perception, states of consciousness, learning, memory, thinking and language, intelligence, motivation, emotion, personality, psychological disorders, therapy, stress and health, social psychology and statistical reasoning. Students may take the Advanced Placement examination in May. **This course terminates with the AP Exam.** *Prerequisites: Minimum overall average of 80 and a minimum of 85 in Living Environment, or permission of department.*

### **SBS21X: Advanced Placement Biology**

(10 periods per week - Special Permission Required)

This college-level, year-long course of study is an in-depth study for all major areas of Biology with an emphasis on molecular mechanics, geared to the preparation of the student for the Advanced Placement exam. The course is taught through lecture, active classroom discussion and laboratory projects. Students are tested on each unit and are graded on outlines they prepare of major topic areas. The student must read and master the material in a college level text and review book which is required as outside reading. Students perform dissections and other laboratory exercises.

## **PHYSICAL SCIENCE COURSES**

### **SCS21: Regents Chemistry**

(5 periods per week: 4 recitation and 1 lab)

This is a general introductory chemistry course encompassing the New York State Regents syllabus in Chemistry: The Physical Setting. Emphasis is placed on developing concepts through the scientific method and laboratory exercises are stressed. The Chemistry Regents is taken in June.

### **SCS21QK: Conceptual Chemistry**

(5 periods per week)

This is a general chemistry course for students who require physical science credits but do not require the Chemistry Regents.

### **SES21: Earth Science**

(5 periods per week: 4 recitation and 1 lab)

Earth Systems Science is a sophomore/junior level lab-based science course that explores the interactions of the various “spheres” of Earth (atmosphere, hydrosphere, geosphere, exosphere) as a dynamic, evolving system. This course

illustrates the relevance and impact of science in society, while engaging students in the mastery of basic biology, physics, and chemistry concepts that will prepare them for higher level science courses. The Earth Science Regents is taken in June.

### **SPS21: Physics**

(5 periods per week: 4 recitation and 1 lab)

This is a general introductory physics course encompassing the New York State Regents syllabus in Physics: The Physical Setting. Emphasis is placed on developing concepts through the scientific method and laboratory exercises are stressed. The Physics Regents is taken in June.

## **PHYSICAL SCIENCE ELECTIVE COURSES**

### **SDS21QF: Forensic Science**

(5 days per week: 4 recitation and 1 lab)

Forensic Science is focused upon the application of scientific methods and the techniques to crime and law. Recent advances in scientific methods and principles have had an enormous impact upon law enforcement and the entire criminal justice system. This course is intended to provide an introduction to understanding the science behind crime detection. Scientific methods specifically relevant to crime detection and analysis will be presented with emphasis placed upon techniques used in evaluating physical evidence. Topics and laboratory investigations included are : crime scene investigations, fingerprinting, document and handwriting analysis, ballistics, serology, hair and fiber examination, botany, organic and inorganic evidence analysis, entomology, the role of the medical examiner, the forensic autopsy, anthropology, germ warfare, DNA analysis, psychology and profiling, toxicology, paint analysis, glass comparisons and fragmentation, arson investigations, tire and foot impressions and casts. A case study and a current events approach will be used extensively. *Prerequisites: At least a Sophomore standing and has passed at least one Science Regents.*

### **SPS21QM: Physics of Sound and Music**

(5 days per week: 4 recitation and 1 lab)

An introduction to the scientific study of acoustics and the physics behind sound engineering. Students will learn how to calculate and alter the amplitude and frequency of sound waves. Students will then be able to apply this knowledge in live sound reinforcement, as well as in the production of professional quality sound recordings using Pro Tools, StudioLive, and Logic. *Prerequisites: At least one intermediate guitar or piano class.*

*Science Research*

**SQ21UJ: SUNY Science Research**

Open to currently enrolled Science Research students who want to continue in the SUNY program.

**SQS21QJ: Science Research**

An introduction to Science Research...

## SOCIAL STUDIES DEPARTMENT

### **HUS21Q9 (9th Grade)/HUS21 (11th Grade): US History**

(5 periods per week - Honors Version for 9th Graders HUS21H9)

United States History is a required, year-long inquiry course. This course explores the events of America's past and present through a diversity of perspectives and integrates concepts in geography, economics, politics, social science, current events, and international affairs. The course stresses how events of the past shape the present and how politics, economics, gender and race/ethnicity have affected, and continue to affect, North American societies. The course traces early contact among Europeans, Native Americans, and Africans, summarizes the causes/impacts of major domestic and international conflicts, uncovers the socio-political forces affecting cross-cultural relations, examines the impacts of landmark political and economic events and tackles contemporary political issues among other topics. Students are engaged in critical thinking, conduct thesis-driven research, complete various types of historical reading and writing, and present arguments and presentations before small and large groups. **This course culminates in the US Regents. Required for graduation.**

### **HGS43: Global History: Modern History**

(5 periods per week)

World History after 1750. Issues covered in the second term include fascism, World War II, the Cold War, Post- World War II economics, the Chinese Communist Revolution, Post- World War II Africa, Post WWII South East Asia, Latin America, the collapse of communism and the break-up of the Soviet Union and current world affairs. **This course culminates in the Global Studies Regents. Required for graduation.**

### **HGS41: Global History: Ancient History**

(5 periods per week)

World History to 1750.

### **HVS11 & HES11: Participation in Government & Economics**

(5 periods per week)

This senior course satisfies the graduation requirement. The Government curriculum includes a study of the American system of government. The Constitution is a focal point of study and it is examined from both historical and contemporary perspectives. Students will also be involved in a "participation in government" experience. The Economics course includes banking, labor, taxation

and international trade. Comparisons will be made with other economic systems.  
**Required for graduation.**

## SOCIAL STUDIES ADVANCED PLACEMENT COURSES

### **HUS21X: Advanced Placement US History**

(5 periods per week)

This course addresses the Advanced Placement US History Exam and prepares students to take the AP US History Examination in May. It is taken in place of HUS21. We begin with the Colonial period and continue through to contemporary times. The course prepares students for the United States History and Government Regents in June. Students must maintain a minimum course grade of an 80 to remain in the course. **This course terminates with the AP Exam.**

*Prerequisites: Average of 90 or better in English and History classes, or permission of department.*

### **HFS21X: Advanced Placement US Government**

(5 periods per week)

This course is taken in place of the required senior social studies class, and prepares students for the AP US Government Exam.

### **HPS21X: Advanced Placement Human Geography**

(5 periods per week)

This course introduces students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of the Earth's surface. Students learn about the methods and tools geographers and demographers use in their science and practice. Students enrolled in this class may take the Advanced Placement Examination in May.

## LAW PROGRAM COURSES

### **HLS21: Introduction to Law**

(5 periods per week)

This is a year long survey course in which students are exposed to basics of law in the following content areas: How laws are made by government; constitutional structure of government; differences between civil and criminal law; courts/judges/lawyers - roles and professional responsibilities/ethics; how lawyers are compensated; Tort law (negligence, strict liability); Family Law; Constitutional



Law issues pertaining to teens; business and consumer law, housing/rent/property laws. In addition to using Street Law textbook, students use computers in the classroom, do legal research and writing, screen law related DVDs and films, and perform roles of lawyers and witnesses in mini mock trials. There will be speakers on various legal topics as well as a court field trip.

### **HLS21QCL: Criminal Law**

(5 periods per week)

In the Fall term, students examine the constitutional rights of individuals, especially juveniles in the criminal justice system from case investigation and arrest up through trial verdict. How does criminal procedure law protect our rights under the 4th (Search and Seizure); 5th (Right against self incrimination, grand jury and more); 6th (Right to counsel, jury, fair trial) and 8th (Bail and cruel and unusual punishment)? These are broad essential questions for the course. Students take an active role in various court scenarios in the classroom, as well as a field trip to Bronx County Criminal Court to experience the practical implications of classroom learning. *Prerequisite: Introduction to Law*

In the Spring term, through case law, current events and courtroom scenarios, students explore issues of fairness in punishment in the criminal justice system regarding sentencing, especially pertaining to juveniles and the mentally impaired; and constitutional issues involving the death penalty. Students evaluate implementation of Megan's Law and examine other sex offender issues. Students analyze police use of force, and create a project based on the Innocence Project and exoneration of those wrongfully convicted. *Prerequisite: Criminal Law I*

### **HLS21TCT: Constitutional Law**

(5 periods per week)

DESCRIPTION GOES HERE

### **HLS21QMT: Moot Court/Mock Trial**

(5 periods per week)

In the Fall Semester, Students prepare for Mentor Moot Court competition by analyzing the facts and legal issues in the assigned hypothetical appellate court case created by the Fordham Law School Moot Court Board. Prior to receiving the case packet students will master the basics of appellate jurisdiction and will become skilled in how to brief court cases. Students will develop and demonstrate appellate court argument proficiency by taking positions on the constitutional and

statutory issues in the case and creating both written and oral argument presentations. In addition to classroom instruction they will be guided in hands-on training by attorneys from a mentor law firm in weekly meetings after school.

In the Spring Semester, students prepare for Mentor Mock Trial competition by analyzing the facts and legal issues in the assigned hypothetical case. Taking on the roles of lawyers and witnesses, students demonstrate new skills in preparing opening and closing statements as well as direct and cross examinations and gain proficiency in the law regarding objections, courtroom decorum and legal procedure. When not competing, students choose legal issues of particular interest to create special projects and presentations.

### **RESEARCH COURSE SEQUENCE**

**HBS61QJ: Quantitative Research in Behavioral & Social Science (10)**

**HBS63QJ: Quantitative Research in Behavioral & Social Science (11)**

**HBS65QJ: Research Competitions (12)**

(5 periods per week in Sophomore/Junior Year, Variable Periods Senior Year -- Special Permission Required)

This sequence of courses is designed to prepare students for entry into the Regeneron Science Talent Search and other research competitions in their senior year. The sophomore year teaches the foundations of research methods and statistics. Applied statistical computing for Data Analysis is emphasized. Fields of research include psychology, economics, sociology, and political science. Students will also select a topic and, where appropriate, find an university-based professor with whom to work. This class requires a maturity and an ability to work independently.

## ART/MUSIC DEPARTMENT

### DANCE COURSES

#### **PDS21: Introductory Dance (PE Credit) - Survey Gym Dance**

This dance course is geared toward freshmen who have never taken a formal dance class. It will teach the student about the different sections of a dance class and how to take a dance class while introducing them to basic modern/Jazz/contemporary dance technique. They will learn about rhythm, coordination and performance techniques. The students will also learn basic hip-hop and cultural dance styles.

#### **DSS43: Intermediate Dance**

This class is geared toward the student is more serious about learning dance. The modern/contemporary dance technique now becomes more complex and challenging requiring the student to become more flexible and physically stronger in order to do the work. It is a level where the student is thinking about becoming an advanced or possible dance company member. The latin and afro-caribbean dances learnt become faster, more complex and challenging. The same applies to the Jazz dance technique in the second semester. Each semester students learn intermediate choreographic techniques. The student is required to perform in both the Winter and Spring Dance Concerts. Students are required to attend one day of after school rehearsal.

#### **DWS21: Advanced/Company Dance**

This level is for the serious dance student who may be considering taking dance in college as their major or minor or is considering related fields in dance (dance therapy etc..) But it is also for the student who simply wants the experience of dancing at a pre-professional level in the High School. These students have 2 days of modern (Horton, Graham/Limon Technique), 2 days of ballet and one day of repertory/ cultural dance (latin/African/Bollywood).

In the 2<sup>nd</sup> semester students take 2 days of Jazz, 2 days of ballet and one day of repertory/cultural dance. Students learn advanced choreographic techniques. Students are required to attend 2 days of after school rehearsal a week. They are also required to perform in the yearly dance concerts, for school assemblies and at outside venues.

### MUSIC COURSES

### **UGS81: Introduction to Guitar**

(5 periods per week)

An introduction to guitar, bass, and drum performance. Students will learn the performance techniques and musical skills required to play instruments at a beginner level. Students in this course will be required to participate in at least one performance per semester.

### **UGS83: Intermediate Guitar 1**

(5 periods per week)

Students will learn the performance techniques and musical skills required to play instruments at a novice level. Students in this course will be required to participate in at least one performance per semester.

### **UGS85: Intermediate Guitar 2**

(5 periods per week)

Students will learn the performance techniques and musical skills required to play instruments at an intermediate level. Students in this course will be required to participate in at least two performances per semester.

### **UGS87: Advanced Guitar**

(5 periods per week)

Students will learn the performance techniques and musical skills required to play instruments at an advanced level. Students in this course will be required to participate in at least two performances per semester.

### **UPS81: Introduction to Piano**

(5 periods per week)

An introduction to piano performance. Students will learn the performance techniques and musical skills required to play piano at a beginner level. Students will also learn how to record and assess piano performances using Apple's GarageBand software.

### **UPS85: Intermediate Piano 1**

(5 periods per week)

Students will learn the performance techniques and musical skills required to play piano at a novice level. Students in this course will be required to participate in at least one performance per semester.

### **UPS85: Intermediate Piano 2**

(5 periods per week)

Students will learn the performance techniques and musical skills required to play piano at an intermediate level. Students in this course will be required to participate in at least two performances per semester.

### **UPS87: Advanced Piano**

(5 periods per week)

Students will learn the performance techniques and musical skills required to play piano at an advanced level. Students in this course will be required to participate in at least two performances per semester.

## **ART COURSES**

### **ACS41: Photography**

Students will acquire knowledge regarding art history as well as the history of photography. Understanding the causal relationships between cultural, philosophical and scientific discoveries over centuries that were necessary to allow for the invention of photography. Connecting world events to the evolution of photography. Students will research, make critical observations, develop skills to process and develop traditional black and white film and enlarged prints.

This course teaches students who have no prior knowledge of photography how to process film, make enlarged prints, and begin to use the medium of photography to expand their personal vision. All students who take the course will learn the basic functions of the camera and processes in the darkroom. Projects assigned will explore the relationships between the photographer and the subject; the role of the photographer in society, narrative sequencing in the print and its presentation; the portraiture and its inherent social and psychological implications. Critiques will be held monthly, and at the end of the term a selection of approximately 10 works will complete a portfolio.

### **ACS43: Advanced Photography**

This course builds upon the skills learned in the introductory photography course.

### **AZS41: Cartooning- Comic Creations**

Students learn the concepts and techniques associated with the fun filled, wild, and crazy world of cartooning. Students learn to rely on exaggeration and imagination to develop creative characters to use in their own cartoon style

drawings, scenes and stories. Through practice and formative tasks, visual aids, class discussions, and hands on projects, students expand their imagination and creativity as they progress in the style of cartoon art.

Intermediate and Advanced courses offer students the opportunity to develop a portfolio of artwork using a variety of materials, resources and concepts based on techniques and concepts previously learned in beginning level class. Students are expected to add their own creative thinking and experimentation to reveal artistic individuality, problem solving skills and personal expression.

### **AZS43: Intermediate Cartooning**

A continuation of the skills learned in Introduction to Cartooning.

### **CJS21: Drama 1**

In the fall term, students would learn the basic history of the theater; its routes from the beginning in ancient Greece up to Shakespearean times. Students would learn the beginnings of acting on stage, as well as the terms associated with a performance. The monologue, soliloquy and scene with partners would be an area of focus during this semester. Students would become familiarized with stage directions, props, sets, and costumes, as well as the other crucial elements to a performance. Assessments would compose of research papers, participation, and most importantly a culminating acting project/performance for the school. Trips to see Shakespearean performances would be organized to help instill the value of live performance.

Modern Theater is studied in the spring term. The time period of the plays studied would encompass Shakespearean theater, to the modern world. Students would practice the art of acting on three forms of stage: Theatre in the Round, Black box intimate, and auditorium performance. Class projects will consist of more challenging performances, stepping away from the monologue and scene, into full dialogue of a play cast with multiple characters and multiple sets. Students would advance from the scene in Theatre 1, to the Act in Theatre 2. Trips to Broadway would be conducted with the purpose of introducing students to the art of acting and singing on stage. This would serve as a bridge to students who have interest in musical theatre.

### **ANS41: Studio Art 1**

Studio Art 1 is an introductory course in which students develop skills to express themselves creatively through visual images using Art Elements and Art Principles. Students learn vocabulary, concepts, techniques, history and many other ideas associated with art. Students also learn to critique and discuss art in a

thoughtful manner. This class is designed to give students a greater appreciation for art and make them more well-rounded individuals by giving them new knowledge in a field they may not otherwise have sought out.

### **ANS43: Intermediate Studio Art**

This is an intermediate level art class that will further explore the concepts and techniques learned in Beginner Studio Art 1 and 2. *Prerequisite: Students must have taken at least one art class before enrolling in this class.*

### **AWS21: SUNY Drawing**

SUNY Drawing is an introductory studio course in drawing techniques and concepts. Students will develop intense perceptual and conceptual skills through sequential exercises, critiques, digital image lectures and strong drawing practice. Basic exercises in this class stress building hand-eye coordination and understanding spatial relationships, perspective, proportion, the added dimension of time, and one's own intuition. We will study drawing as a method of communication and how images can be interpreted. This course will focus on line drawing and three-dimensional rendering. Assignment subjects will include, but are not necessarily limited to, still life, three-dimensional rendering, landscape, gesture, figure model, silhouette, portraiture, expression, and abstraction. *Prerequisite: Students must have taken at least two art classes and must be a Junior (11th grade) or above before enrolling in this class.*

### **AUS41: Media Foundations**

A year-long introduction to the creative use of media arts through digital images and computer art. Students will learn Adobe Photoshop, HTML as well as learning the program Sketchup for 3D modelling and engineering. Students have the opportunity to complete certification in Adobe Photoshop.

### **AUS43: Web Animation & Web Development**

In the Fall Term, students will learn how to use Adobe Flash to create interactive vector graphics and animation on the World Wide Web. Students will use Flash to create resizable and extremely compact, low bandwidth navigation interfaces and animations as well as other effects used in today's web design. In the Spring Term, students will learn how to use Adobe Flash to create interactive vector graphics and animation on the World Wide Web. Students will use Flash to create resizable and extremely compact, low bandwidth navigation interfaces and animations as well as other effects used in today's web design. *Prerequisites: Completion of Media Foundations*





## TECHNOLOGY DEPARTMENT

### **TSS41T: Information Technology I and II**

(5 periods per week)

In the Fall Term, this course is designed to introduce students to the physical layer as the beginning stage of an Information Technology Career. It leads and encourages students to obtain industry standard certifications that will prove a theoretical and hands-on knowledge of copper-based network systems. The skills obtained by this program will enable the student to obtain and secure a position as an “Entry Level Network Technician.”

In the Spring term, the course aims to introduce students to basic computer components and how they interconnect to make a functional computer system. It prepares and encourages students to obtain industry standard certifications. Furthermore, this course provides the theoretical, hands-on knowledge and customer support/communication skills required in today’s ever-changing fields within Information Technology. The skills obtained by this program will enable the student to obtain and secure a position as an “Entry Level Computer Technician” and/or “Entry Level Help Desk Support”

### **TSS43T: Information Technology III and IV**

(10 periods per week)

This course covers the fundamentals of computer hardware and software as well as advanced concepts. Students who complete this course will be able to describe the internal components of a computer, assemble a computer system, install an operating system, and troubleshoot using system tools and diagnostic software.

*Prerequisite: Information Technology II*

Students will also be able to connect to the Internet and share resources in a network environment. Additional topics covered include laptops and portable devices, wireless connectivity and basic implementation skills, Voice over Internet Protocol (VoIP), security, safety and environmental issues, applied network configuration and troubleshooting skills, and communication skills. Hands-on lab activities and virtual learning tools are essential elements that are integrated into the curriculum. The Virtual Laptop and Virtual Desktop are stand-alone tools designed to supplement classroom learning and provide an interactive "hands-on" experience in learning environments with limited physical equipment. The inclusion of LabSim Online Labs activities provides learning experiences that align

with the new CompTIA A+ certification objectives without requiring academies to purchase extra networking equipment.

**TES41T: Cisco I & II Introduction to Networks & Routing and Switching Essentials**

(10 periods per week)

This is a full year course where students learn the basics of routing, switching, and advanced technologies to prepare for Cisco CCNA certification and entry-level networking careers. The curriculum discusses networking concepts in depth and uses language that allows for integration with engineering concepts, providing a deep, theoretical understanding of networking concepts for experienced learners with advanced problem-solving and analytical skills. Courses emphasize critical thinking, problem solving, collaboration, and the practical application of skills. The fundamentals part of the course, chapters Semester 1 and 2 | chapters 1-11, helps students prepare for the CompTIA Network Plus exam (N10-006/JK0-023) | TestOut Network Pro covers network technologies, installation and configuration, media and topologies, management, and security. *Prerequisite: Computer Repair IV*

**BCS11T: Career and Financial Management**

(5 periods per week): Spring Term Only

The course is designed to prepare students for the transition from high school to an employment setting. Students will explore a variety of topics and develop skills that will ensure success in future employment. This course is required for all students enrolled in the Information Technology track.

## FOREIGN LANGUAGE

### ITALIAN

#### **FTS61: Italian 1 & 2**

This course is the first year of formal instruction in the Italian language. Students progress from listening to and repeating short, memorized phrases to using linguistic and cultural skills for expressing needs. Emphasis is placed on dialogue and short readings, oral guided responses, the alphabet and sound system, topical vocabulary, and present tense verbs. In addition to the language study, students explore aspects of the Spanish culture, geography, history, and literature

#### **FTS63: Italian 3 & 4**

Italian 3 and 4 is designed to enhance students' skills in listening, speaking, reading and writing the Italian language. Students will apply these skills in simulated daily-life situations. In addition to the language study, students will continue to explore aspects of the Italian culture, geography, history, and literature. Emphasis is placed on the oral language as a means of communication. *Prerequisite: FTS62*

#### **FTS65: Italian 5 & 6**

Regents Level Italian offers review and reinforcement of the skills and knowledge mastered in Italian 2. Advanced grammar concepts are introduced and more complex vocabulary and reading passages are studied. Emphasis is placed on improving conversation skills and using the language in a variety of settings. *Prerequisite: FTS64*

### SPANISH

#### **FSS61: Spanish 1 & 2**

This course is the first year of formal instruction in the Spanish language. Students progress from listening to and repeating short, memorized phrases to using linguistic and cultural skills for expressing needs. Emphasis is placed on dialogue and short readings, oral guided responses, the alphabet and sound system, topical vocabulary, and present tense verbs. In addition to the language study, students explore aspects of the Spanish culture, geography, history, and literature

#### **FSS63: Spanish 3 & 4**

Spanish 2, continuation of Spanish 1, is designed to enhance students' skills in listening, speaking, reading and writing the Spanish language. Students will apply these skills in simulated daily-life situations. In addition to the language study, students will continue to explore aspects of the Spanish culture, geography, history, and literature. Emphasis is placed on the oral language as a means of communication. *Prerequisite: FSS62*

#### **FSS65: Spanish 5 & 6**

Spanish 3 offers review and reinforcement of the skills and knowledge mastered in Spanish 2. Advanced grammar concepts are introduced and more complex vocabulary

and reading passages are studied. Emphasis is placed on improving conversation skills and using the language in a variety of settings. *Prerequisite: FSS64*

**FSSA7X: Advanced Placement Spanish Language**

Students who enroll should already have a basic knowledge of the language and culture and should have attained a reasonable proficiency in listening comprehension, speaking, reading and writing. Extensive training in aural/oral skill, - 38 - reading comprehension, grammar, organization, and writing of compositions, and essays are an integral part of these courses. Students must submit a writing sample and complete an interview with the instructor prior to admission. Students should expect projects and are expected to work independently to improve their vocabulary.

**FSSA9X: Advanced Placement Spanish Literature and Culture**

The AP Spanish Literature and Culture course is designed to introduce students to the formal study of a representative body of literature, written in Spanish, from Spain, Latin America and the United States. The course provides students with ongoing and varied opportunities to develop proficiency in Spanish across a full range of skills, with emphasis on critical reading and analytical writing. It also encourages students to reflect on the many voices and cultures included in a rich and diverse body of literature written in Spanish. *Prerequisite: Completion of AP Spanish Language*

## PHYSICAL EDUCATION

### Physical Education

#### PPS11: General Physical Education

#### PPS11QWT: Weight training

#### PPS11QFT: Fitness

#### PDS21: Introductory Dance (PE Credit) - Survey Gym Dance

#### PHS11: Health

All students are required to take health. Topics include nutrition, exercise and rest, appearance, behavior, stress management, drug abuse prevention, the effects of alcohol and tobacco, infectious diseases, first aid and safety. The study of all aspects of safety, first aid, and healthy lifestyles are aspects of this course. ***This course is required for graduation.***

## **SPECIAL PROGRAMS**

The following summarizes three special program tracks offered by Lehman High School. These tracks supplement the academic course load and **students will only be able to continue with the sequence of special program courses if all academic courses (including Physical Education) and Regents exams are passed. See above course descriptions for prerequisites.**

### **COMPUTER SCIENCE/DIGITAL MEDIA**

Course Sequence:

**Media Foundations (Sophomore Year)**

**Web Animation (Fall Junior Year)**

**Web Development (Spring Junior Year)**

**Advanced Placement Computer Science (Senior Year)**

### **CAREER AND TECHNICAL EDUCATION (CTE)**

#### **Law Sequence**

The law program is an additional sequence of courses that complement the academic program offered by Lehman High School. Students interested in the Law Track **must** enroll beginning the Fall Term of their Sophomore (10th grade) year. The Law track is comprised of the following four courses. Students have the opportunity to intern, during their Senior year, for a local attorney or public agency.

Course Sequence:

**Introduction to Law**

**Criminal Law I & II**

**Constitutional Law I and II**

**Moot Court/Mock Trial**

#### **Information Technology Sequence**

The Information Technology (IT) program is an additional sequence of courses that complement the academic program offered by Lehman High School. Students interested in the IT track **must** enroll beginning in the Fall Term of their Sophomore (10th grade) year. The IT track is comprised of the 7 listed courses above (see Technology

Department) as well as a culminating internship during Senior Year. Students enrolled in the IT program can earn a CTE designation on their high school diploma if all 7 credits in the IT sequence are earned (pending state approval). Students completing this sequence of courses can earn industry certifications that can aid in finding employment.

*Certifications:*

The following are certifications that all students enrolled in the IT program have the opportunity to earn: A+,

*Additional certifications:*

The following are additional certifications students may earn if time permits:

*Internship:*

Students enrolled in the IT program are encouraged to seek out internships with the help of the Work Based Coordinator. Internships can be in the private or public domain. Lehman High School has partnerships to help students find meaningful internships. Students, in good academic standing in all classes (not just CTE courses) and on track for graduation, may participate in the internship activity. Students who have accepted internships will attend school until the end of 5th period and then travel to their internship destination. The Work Based Coordinator must approve all internship sites and will conduct worksite visits throughout the internship experience.

Course Sequence:

**Information Technology I (Fall Sophomore year)**

**Information Technology II (Spring Sophomore year)**

**Information Technology III (Fall Junior Year)**

**Information Technology IV (Spring Junior Year)**

**(Cisco I & II) Introduction to Networks & Routing and Switching Essentials (Senior Year)**

**Career and Financial Management (Spring Senior Year)**

**Internship (Senior Year)**

## SAMPLE 4 YEAR PROGRAM

### Advanced Regents Diploma Sample 4 year program

Freshman Year (9th Grade)		
	Fall	Spring
1	English	English
2	History (US)	History (US)
3	Math	Math
4	Math	Math
5	Foreign Language	Foreign Language
6	Physical Education*	Physical Education
7	Science	Science
8	Science Lab (1x/week) Advisory (1x/week) Computer Science (3x/week)	Science Lab (1x/week) Advisory (1x/week) Computer Science (3x/week)
9	Lunch	Lunch

\* Physical Education or Health must be taken and passed each semester, for all 4 years, to graduate.

Sophomore Year (10th Grade)		
	Fall	Spring
1	English	English
2	History (Global 3/4)	History (Global 3/4)
3	Math	Math
4	Math	Math
5	Science	Science
6	Foreign Language/Elective	Foreign Language/Elective
7	Elective (or double science)	Elective (or double science)



<b>8</b>	<b>Physical Education</b>	<b>Physical Education</b>
<b>9</b>	<b>Lunch</b>	<b>Lunch</b>

<b>Junior Year (11th Grade)</b>		
	<b>Fall</b>	<b>Spring</b>
<b>1</b>	<b>English</b>	<b>English</b>
<b>2</b>	<b>History (US)</b>	<b>History (US)</b>
<b>3</b>	<b>Math</b>	<b>Math</b>
<b>4</b>	<b>Science</b>	<b>Science</b>
<b>5</b>	<b>Foreign Language/Elective</b>	<b>Foreign Language/Elective</b>
<b>6</b>	<b>Physical Education</b>	<b>Physical Education or Health</b>
<b>7</b>	<b>Art/Music/CTE/Elective</b>	<b>Art/Music/CTE/Elective</b>
<b>8</b>	<b>Elective</b>	<b>Elective</b>
<b>9</b>	<b>Lunch</b>	<b>Lunch</b>

<b>Senior Year (12th Grade)</b>		
	<b>Fall</b>	<b>Spring</b>
<b>1</b>	<b>English</b>	<b>English</b>
<b>2</b>	<b>History (Economics or Part Gov.)</b>	<b>History (Economics or Part Gov.)</b>
<b>3</b>	<b>Math Elective</b>	<b>Math Elective</b>
<b>4</b>	<b>Science Elective</b>	<b>Science Elective</b>
<b>5</b>	<b>Elective</b>	<b>Elective</b>
<b>6</b>	<b>Physical Education or Health</b>	<b>Physical Education</b>
<b>7</b>	<b>Elective</b>	<b>Elective</b>
<b>8</b>	<b>Elective</b>	<b>Elective</b>
<b>9</b>	<b>Lunch</b>	<b>Lunch</b>

## NYC DOE Graduation Requirements: Credit Accumulation<sup>1</sup>

Subject	Advanced Regents Diploma	Regents Diploma
ELA	8	8
Social Studies	8	8
Math	6	6
Science	6	6
Language	6 <sup>2</sup>	2
Electives	3	7
Physical Education	4	4
Health	1	1
Art/Music	2	2
<b>Total</b>	<b>44</b>	<b>44</b>

1 The number of credits required for State-approved Career and Technical Education (CTE) sequences varies depending on the specific program of study. Students may therefore be required to earn more than 44 total credits in order to graduate with a CTE endorsement. Students in CTE programs should ask their schools about these requirements.

2 Students completing Arts or CTE endorsements to the Advanced Regents diploma are required to complete only 2 credits of LOTE. See reverse for more information about these endorsements

## NYC DOE Regents Examination Requirements

	Advanced Regents Diploma	Regents Diploma
Regents Exam	Minimum Requirements	
ELA	65+	65+
Math	65+ on three math exams: <ul style="list-style-type: none"> <li>● Algebra I,</li> <li>● Geometry, <b>AND</b></li> <li>● Algebra II</li> </ul>	65+ on one math exam: <ul style="list-style-type: none"> <li>● Algebra I,</li> <li>● Geometry, <b>OR</b></li> <li>● Algebra II</li> </ul>
Social Studies	65+ on one social studies exam: <ul style="list-style-type: none"> <li>● US History <b>OR</b></li> <li>● Global History &amp; Geography</li> </ul>	65+ on one social studies exam <ul style="list-style-type: none"> <li>● US History <b>OR</b></li> <li>● Global History &amp; Geography</li> </ul>
Science	65+ on Living Environment <b>AND</b> one other science exam: <ul style="list-style-type: none"> <li>● Earth Science,</li> <li>● Chemistry, OR</li> <li>● Physics</li> </ul>	65+ on one science exam: <ul style="list-style-type: none"> <li>● Living Environment</li> <li>● Earth Science,</li> <li>● Chemistry, OR</li> <li>● Physics</li> </ul>
Languages Other Than English (LOTE)	65+ on one NYC LOTE exam	Not required
+1 Option	65+ on any additional Regents exam or State-approved +1 assessment	65+ on any additional Regents exam or State-approved +1 assessment



