

# HERBERT H. LEHMAN HIGH SCHOOL

COURSE CATALOGUE  
2018-2019



# ADMINISTRATION DIRECTORY

<b>Principal</b>		
<b>Mr. John Powers</b>		<b>Room 169</b>
<b>Assistant Principals</b>		
<b>Ms. Denise Cember</b>	<b>Assistant Principal Special Education, Physical Education, Foreign Language</b>	<b>Room 176</b>
<b>Mr. Daniel Figueras</b>	<b>Assistant Principal Science, Technology, Art &amp; Music</b>	<b>Room 133</b>
<b>Dr. Zach Lynn</b>	<b>Assistant Principal Operations, Programming, Mathematics Anne Hutchinson Academy (Honors)</b>	<b>Room 167</b>
<b>Mrs. Cheryle Pierre</b>	<b>Assistant Principal Guidance</b>	<b>Room 154</b>
<b>Ms. Dana Szalkiewicz</b>	<b>Assistant Principal English, History, ENL</b>	<b>Room 158</b>

## ENGLISH DEPARTMENT

### *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 - Students who have already passed the Regents take EES85QZ)

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 Exam, which is required for graduation.**

#### **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.

## ***ADVANCED CORE ENGLISH COURSES***

Students may take the following three courses in any sequence. They all require a score of at least 75 (college readiness) on the ELA Regents Exam. These classes can be taken in lieu of EES85 and EES87.

### **EESG5X: Advanced Placement English Language & Composition**

(5 periods per week - special permission required, previously coded EES85X)

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. **This course terminates with the AP Exam.**

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

### **EESG7X: Advanced Placement English Literature & Composition**

(5 periods per week - special permission required, previously coded EES87X)

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. **This course terminates with the AP Exam.**

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

### **EESG3U: SUNY English**

(5 periods per week - special permission required)

The Fall course is “The Earliest Stories: Myths, Folklore, and Fairytales”.

Introduction to some of the classic tales of world literature, exploring national, historical and linguistic boundaries. Texts chosen will introduce students to literary traditions and provide a foundation for English literary studies. Students will conduct close reading of all texts, and are expected to showcase their reading through analytical and critical discussion and writing. By delving into classic texts the class will focus on why humans create stories, who and what purpose they are created for, and how the stories we tell today are different or the same. Major thematic issues will be discussed, including: hubris, fate, love, gender, sexuality, race, and the notion of being a hero. This course has been submitted for approval

to SUNY Albany. If approved, three credits will be offered as ENG 222. Spring Course description TBD.

## ENGLISH SELECTIVE COURSES

### **EESGF/EESGE: Literature Circles**

(5 periods per week - special permission required)

This course is designed to serve as a core English course for students with credit gaps in core English. This course should be taken concurrently with a sequential English course.

## ENGLISH ELECTIVE COURSES

### **EWS21Q9: Freshman Writing Seminar**

(4 periods per week)

Description to follow

### **EWS21QCC: Creative Writing**

(5 periods per week)

Students in the creative writing class will widely read poems, short stories, novels, and memoirs such as Stephen King's *On Writing*. They will write and revise their own poems and short stories through collaborative workshops with their classmates, mimicking the environment of a college-level creative writing seminar. Students will also plan and write novels as participants in National Novel Writing Month in November, and will continue to revise these novels throughout the year. Each semester, the course will culminate in students' best pieces (or excerpts) being published in Lehman High School's forthcoming literary magazine, *Beyond the Page*.

## MATHEMATICS DEPARTMENT

### *CORE COURSES*

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

(5 periods per week -- Honors Version Available MES21H @ 8 periods per week)  
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.

#### **MQS21QPS: Problem Solving**

(5 periods per week - Must be taken concurrently with MES21)  
In this course, designed in parallel with Algebra 1, students will learn problem solving strategies, as well as learn *through* problem solving. This course will be taught mainly through seminars and group work, and will allow students to extend and expand their mathematical vocabulary and use of writing strategies in tandem with the algebra concepts they are learning. This course will incorporate several advanced or extended problem solving activities. This course is *not* an algebra credit, but also does *not* count as an advanced mathematics course for graduation.

#### *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.

#### **MGS32: Geometry Common Core**

(5 periods per week)  
A continuation of MGS31, a three-term Geometry sequence. No other students may enroll in this course.

### **MGS43: Geometry Common Core**

(5 periods per week)

This course is designed for students who have completed MGS21 and MGS22, but need to view the material through an additional lens to achieve success on the Geometry Regents Exam. Students who have passed the Geometry Regents should not be enrolled in this course.

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

(5 periods per week - Honors Version Available MRS21H)

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.

### **MRS41: Algebra II Common Core**

(5 periods per week)

An extended introduction to the Algebra 2 course described above, this course is ideal for students who are also planning to retake the Algebra 1 Regents Exam for College Readiness.

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

### **MSS21: Introductory Statistics**

(5 periods per week)

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.*

### **MQS21U: SUNY Contemporary Math**

(5 periods per week)

“An introduction to application of mathematics to everyday life requiring a background of only standard high school mathematics (intermediate algebra and a little Euclidean geometry). Suggested topics include the mathematics of voting, management science through graph theory, and growth and symmetry.”

This course has been submitted for approval to SUNY Albany. If approved, three credits will be offered as MAT 104.

*Prerequisites: Must have passed the Algebra Regents Exam*

### ***Advanced Placement Courses***

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

(5 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.*

#### **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. **This course terminates with the AP Exam.**

*Prerequisites: Junior or Senior standing and a minimum average of 85 in Geometry, or permission of department.*

*Computer Science Electives*

**MQS21QP: Python and Computational Thinking**

(5 periods per week for one term-Completion of MKS21 required - Beginning with Cohort W, all students will take this course or AYS21 in the sophomore year.)

An introduction to programming in Python designed to build upon the skills acquired in 9th grade computer science.

*Other Elective Classes*

**MQS21HJ: Quality of Life Competition**

(5 periods per week)

Students will develop the research and quantitative skills to develop a proposal for the Quality of Life competition, which is designed to foster social entrepreneurship. Effective with the Class of 2020, this course will fulfill the capstone requirement for Anne Hutchinson Academy students.

## SCIENCE DEPARTMENT

### *BIOLOGICAL SCIENCE CORE 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.

#### **SBS21QE: Evolutionary Biology**

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

This course is designed for students who will benefit from an additional lens with which to view the material on the Regents syllabus in Living Environment.

Through a study of human evolution, students are reintroduced to fundamental biological topics through an alternative perspective. The Living Environment Regents is taken in January and June, and only students who have not yet passed the exam should be enrolled in this course.

### *LIFE SCIENCE ELECTIVE COURSES*

#### **SWS21QP: Psychology**

(5 periods per week - Offered for Social Studies Elective credit for students who have fulfilled science requirements as HBS21QP)

An introduction to the science of psychology. Students will investigate theories, topics, and applications in the field of psychology across biological, cognitive, social, developmental and clinical areas. Students learn to identify ways in which the science of psychology affects everyday lives and gain knowledge in multiple areas of psychology that provides a foundation for future courses with the major and across campus. The course will highlight connections among different areas of psychology and identify ways in which different perspectives contribute to a fuller understanding of human behavior.

#### **SBS11QC: Marine Biology (Fall) / SBS11QB Animal Behavior (Spring)**

(5 periods per week)

Marine Biology focuses on to the identification, classification and interaction of marine organisms. Information is presented in an integrated approach with science as inquiry, science & technology, science & social perspectives, and the history & nature of science. Topics students study include ecological concepts of

the sandy beach, rocky shore and benthic communities, diversity of ocean life and their relationship to marine life cycles, marine biological resources, and marine pollution. Additional special topics may be selected for study.

### **SWS21XP: Advanced Placement Psychology**

(5 periods per week - Offered for Social Studies Elective credit for students who have fulfilled science requirements as HBS21XP)

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. **This course terminates with the AP Exam.**

## **PHYSICAL SCIENCE CORE COURSES**

### **SCS21: Regents Chemistry**

(5 periods per week: 4 recitation and 1 lab - Honors Version Available SCS21H)

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***

### **SDS21QT: Introduction to Physical Science**

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

An introduction to the basic principles of physical science, with applications to geology, oceanography, meteorology, and astronomy. The objective is to use scientific and quantitative reasoning to make informed decisions about topics related to physical science. Discussion covers the development of scientific thinking, the scientific method, the relationships among the various physical sciences, the role of the physical sciences in interpreting the natural world, and the integrated use of technology.

### **SDS21QS: Physics of Sports**

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

This course examines the physics behind a wide variety of sports, including football, baseball, hockey, soccer, track and field, swimming, etc. We will see how scientific concepts such as force, momentum and energy give us a deeper understanding and appreciation of plays we watch or make on the field. This is a course in physics involves mathematics at the basic algebra level.

### **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: Student must have at least a Sophomore standing and 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.*

### **SDS21X: Advanced Placement Environmental Science**

(5 days a week: 4 recitation and 1 lab - This course is typically offered by another Campus School through the AP For All Program)

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.*

#### SCIENCE TECHNOLOGY ELECTIVE CLASSES

##### **SKS21: Introduction to Computer Science**

(5 periods per week for one term)

An introduction to computer science for incoming 9th grade students.

##### **SKS21QT: Introduction to Engineering Technology**

(5 periods per week)

Description Goes Here

## SOCIAL STUDIES DEPARTMENT

### *SOCIAL STUDIES CORE COURSES*

#### **HUS21: US History**

(5 periods per week - Honors Version available HUS21H)

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.**

#### **HGS21: Global History**

(10 periods per week - 2 Credits Per Term)

This course is aligned to the new Regents curriculum in Global History, and is designed for students to accumulate their Global History credits in one year. The Fall Term covers material to the French Revolution, and the Spring Term focuses on modern history.

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

(5 periods per week - Cohort V and older only)

World History to 1750.

#### **HGS43: Global History: Ancient History**

(5 periods per week - Cohort V and older only)

World History from 1750 to the present.

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

(5 periods per week - 9th graders with HXRU will take HVS11H/HES11H)

This senior course satisfies the senior graduation requirements for Social Studies. 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 - Restricted to students with advanced standing)

This course addresses the Advanced Placement US History Exam and prepares students to take the AP US History Examination in May. We begin with the Colonial period and continue through to contemporary times. **This course terminates with the AP Exam.** *Prerequisites: Average of 90 or better in English and History classes, or permission of department. Students should have passed the US History Regents*

#### **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. Standards addressing *Economics and the Free Enterprise System* are integrated to satisfy NYS Requirements. **This course terminates with the AP Exam.**

#### **HGS41X: 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. **This course terminates with the AP Exam.** For Cohort V, this course may be taken in lieu of HGS41: Ancient History

### ***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 the *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*

### **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.

### ***SOCIAL STUDIES ELECTIVE COURSES***

#### **HES21U/HES22X: SUNY Contemporary Economic Issues)/AP Microeconomics**

(5 periods per week - Special Permission Required - Passing Score on Geometry Regents Exam Required - MRS21 is a required pre- or corequisite.)

The Fall term will parallel SUNY Albany's ECO 202, which is "A discussion of the historical development and current structure of the American economy. Using an interdisciplinary approach and without any technical/mathematical tools, major economic issues will be discussed, such as federal budget deficit, unemployment, poverty, family structure, welfare reforms, America in the world economy, immigration, and health reforms." This course has been submitted for approval to SUNY Albany. If approved, three credits will be offered as ECO 202. Financial assistance is available for qualified students who have a lunch form on file. The Spring Term will serve as a more mathematical introduction to the formal study of microeconomics, in preparation for the AP Exam. The Spring Term will also require an empirical research paper.

#### **HBS21QSS: Sociology of Sports**

(5 periods per week)

Sports are a major part of our everyday social life. While millions of people around the world devote time to watch, millions of others have participated in some variation of sport in their lifetime. This course will examine how sports relate to gender and race stereotypes as well as health, politics, economics, and religion. We will examine the sports industry from the early onset of youth sports thorough the professional ranks.

## **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.

#### **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 Rock Band**

(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 Rock Band 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 Rock Band 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 Rock Band**

(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.

**UQS21: Digital Music**

(5 periods per week)

Description Goes Here!

***ART COURSES***

**AQS11QF: Introduction to Art**

(5 periods per week for One Term)

**Beginning with Cohort X, all 9th graders will take this course for one term. Flips with Introduction to Computer Science.**

**AYS21: Art Fundamentals - Art and Humanities**

(5 periods per week - Beginning with Cohort W, students take either this course or MKS21QP in the Sophomore Year)

Description to follow

**AKS61: Film/Video 1**

(5 periods per week)

Description to follow

**AKS63: Film/Video 2**

(5 periods per week)

Description to follow

**AKS65: Film/Video 3**

(5 periods per week)  
Description to follow

### **ACS41: Darkroom 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 Darkroom 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.*

### **AWS21U: 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.

## **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)



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 pursuing a CTE endorsement.

## FOREIGN LANGUAGE

### ITALIAN

#### **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, 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

PPS11QBV: Badminton & Volleyball

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 Pathways

The following summarizes three special program tracks offered by Lehman High School. These tracks supplement the academic course load and **students are expected to pursue one of these sequences through their four years of high school.**

### COMPUTER SCIENCE

Course Sequence:

9th Grade: Introduction to Computer Science (MKS11) - One Term

10th Grade: Programming in Python (MKS21QP) - Full Year

11th Grade: AP Computer Science Principles (MKS21X)

12th Grade: AP Computer Science - Java, or other Elective Class

### DIGITAL ART AND HUMANITIES

Course Sequence:

9th Grade: Introduction to Art (AQS11) - One Term

10th Grade: Fundamentals of Art - Art and Humanities (AYS21) - Full Year

11th Grade: Film/Video 1

12th Grade: Advanced Film/Video or Photoshop (AUS41) or Digital Photography (AJS21)

### CAREER AND TECHNICAL EDUCATION (CTE)

#### 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

<b>Freshman Year (9th 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>Math</b>	<b>Math</b>
<b>5</b>	<b>Writing Seminar (4 days per week) Science Lab (1 day per week)</b>	<b>Writing Seminar (4 days per week) Science Lab (1 day per week)</b>
<b>6</b>	<b>Physical Education*</b>	<b>Physical Education</b>
<b>7</b>	<b>Science</b>	<b>Science</b>
<b>8</b>	<b>Introduction to Art</b>	<b>Introduction to Computer Science</b>
<b>9</b>	<b>Lunch</b>	<b>Lunch</b>

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

<b>Sophomore Year (10th Grade)</b>		
	<b>Fall</b>	<b>Spring</b>
<b>1</b>	<b>English</b>	<b>English</b>
<b>2</b>	<b>Art or Computer Science</b>	<b>Art or Computer Science</b>
<b>3</b>	<b>Global - Ancient History (double period, 2-credit course)</b>	<b>Global - Modern History (double period, 2-credit course)</b>
<b>4</b>	<b>Global - Ancient History</b>	<b>Global - Modern History</b>
<b>5</b>	<b>Science</b>	<b>Science</b>
<b>6</b>	<b>Foreign Language or CTE Course</b>	<b>Foreign Language or CTE Course</b>
<b>7</b>	<b>Math</b>	<b>Math</b>
<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 (Global 1) or AP Geography</b>	<b>History (Global 1) or AP Geography</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>Social Studies (Economics or Part Gov.)</b>	<b>Social Studies (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
Total	44	44

<sup>1</sup> 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.

<sup>2</sup> 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