

HERBERT H. LEHMAN HIGH SCHOOL

COURSE CATALOGUE
2020-2021



ADMINISTRATION DIRECTORY

Principal		
Mr. John Powers		Room 169
Assistant Principals		
Ms. Denise Cember	Assistant Principal Special Education, Physical Education, Foreign Language	Room 158
Mr. Daniel Figueras	Assistant Principal Science, Technology, Climate & Culture	Room 133
Dr. Zach Lynn	Assistant Principal Operations, Programming, Mathematics, Social Studies & Humanities Anne Hutchinson Academy (Honors)	Room 167
Mrs. Cheryle Pierre	Assistant Principal Guidance	Room 154
Ms. Dana Szalkiewicz	Assistant Principal English & ENL, Art & Music	Room 158

ENGLISH DEPARTMENT

ENGLISH CORE COURSES

EESG1: Freshman English - Humanities

- (5 periods per week - Honors version available - EESG1H)

An integrated and team-taught introduction to English and Global History using the Big History Project and Bickerstaff and Graf's *They Say / I Say* as core resources. The focus is on expository writing and the development of academic writing skills.

EES83: Sophomore English

- (5 periods per week - Honors version available EES83H)
- **Qualified students will take the ELA Common Core Regents, a requirement for graduation.**

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.

EES85: Junior English

- (5 periods per week)
- **This course culminates in the ELA Common Core Regents Exam (for students who have not obtained proficiency), which is required for graduation.**

This course is the study of American literature. 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.

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. There will be a focus on the incorporation of drama into the standard English curriculum.

ADVANCED ENGLISH CORE COURSES

Students may take the following three courses in any sequence. 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 course culminates in the AP Exam.**
- *Prerequisites: Minimum overall average of 85 and overall English average 88 or permission of department.*

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.

EESG7X: Advanced Placement English Literature & Composition

- (5 periods per week - special permission required)
- **This course culminates in the AP Exam.**
- *Prerequisites: Minimum overall average of 85 and overall English average 88 or permission of department.*

This Advanced Placement course

EESG3U: SUNY Albany English: Creative Writing

- (5 periods per week)
- *Prerequisites: Minimum overall average of 85 and overall English average 88 or permission of department.*

Introductory course in creative writing. Practice in the writing of multiple genres and forms, such as poetry, fiction, creative nonfiction, memoir, drama, and other literary forms. This course has been approved by SUNY Albany to be offered for three college credits as SUNY Albany's Eng 102Z.

ENGLISH SELECTIVE COURSES

EESGD/EESGG: Mythology and Gothic Literature

- (5 periods per week - special permission required)

These paired one-term courses are 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 AS A NEW LANGUAGE COURSES

ESS21QEN: Literacy: Entering Level

- (10 periods per week - placement exam required)

This course is designed for students who test at the entering level of English language acquisition. This course should be taken concurrently with an English course. Students will improve their skills in reading, writing, listening, and speaking.

ESS21QEM: Literacy: Emerging Level

ESS21QTR: Literacy: Transitioning Level

ESS21QEX: Literacy: Expanding Level

- (5 periods per week - placement exam required)

This course is designed for students who require additional support for English language acquisition. This course should be taken concurrently with an English course. Students will improve their skills in reading, writing, listening, and speaking.

READING COURSE (NONCREDIT)

ERS21S: Reading

- (5 periods per week - placement by the English Department)

This course is designed to strengthen students' close reading skills using the Rewards curriculum. With an emphasis on decoding and building academic vocabulary, students will improve their reading fluency.

MATHEMATICS DEPARTMENT

ALGEBRA COURSES

MES21: Algebra 1

- (5 periods per week -- Honors Version Available MES21H)
- **This course culminates in the Algebra 1 Regents.**
- **Mandatory co-requisite MSS41Q9**

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.

MES43: Algebra 1 - Year 2

- (5 periods per week)
- **This course culminates in the Algebra 1 Regents.**

A continuation of the Algebra 1 course for students who require a four-semester sequence of study.

REGENTS COURSES FULFILLING THE ADVANCED MATH REQUIREMENT

MGS31: Geometry Term 1

- (5 periods per week -- Honors Version Available MGS21H)
- **This course may culminate in the Geometry Regents.**

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.

MGS32: Geometry Term 2

- (5 periods per week)
- **This course culminates in the Geometry Regents.**

A continuation of MGS31, a three-term Geometry sequence. No other students may enroll in this course.

MRS21: Algebra 2

- (5 periods per week - Honors Version Available MRS21H)
- **This course culminates in the Algebra II Regents.**

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.

ELECTIVE COURSES FULFILLING THE ADVANCED MATH REQUIREMENT

MSS41: Statistics 9th Grade

- (5 periods per week - Honors Version Available MSS41H9)
- *Requirements: Must be taken concurrently with MES21. Open to first-year students only.*

In this course, designed in parallel with Algebra 1, students will learn statistical concepts, experimental design, and the modeling of linear relationships and probabilistic processes. This course satisfies the Advanced Math Requirement for graduation.

MRS41TFM: Financial Math with Algebra 2 Topics

- (5 periods per week)
- **This course will also count towards the CDOS hours requirement for students pursuing the CDOS credential.**

This course allows students to experience the interrelatedness of mathematical topics, find patterns, make conjectures, and extrapolate from known situations to unknown situations. The mathematics topics contained in this course are introduced, developed, and applied in an as-needed format in the financial settings covered. These topics include: Banking, Investing, Credit, Employment and Income Taxes, Automobile Ownership, Independent Living, and Retirement Planning and Household Budgeting.

MSS43: Intermediate Statistics

- (5 periods per week)
- *Prerequisites: At least two credits of Algebra.*

This course will introduce students to the fundamentals of statistics and data analysis. No prior coursework in advanced statistics is expected. Topics to be covered include: descriptive statistics, inferential statistics, 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. The course will use *Statistics: Concepts and Controversies* by Moore and Notz, and will presume familiarity with experimental design from the 9th grade math and science courses.

MQS21U: SUNY Contemporary Math

- (5 periods per week)
- *Prerequisites: Must have passed the Algebra Regents Exam*

“An introduction to applications 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 approved by SUNY Albany. Three credits will be offered as MAT 104.

MPS44U/MCS11U: SUNY Precalculus and Calc I

- (10 periods per week)
- *Prerequisites: Must have passed three Math Regents Exams*

The Fall Course is Precalculus, which “provides a background in those topics that are needed for success in calculus. Topics include graphing techniques, systems of equations, functions, logarithms, and trigonometry.” The Spring course is Calculus I, which covers “Calculus of one variable. Limits, continuity, differentiation of algebraic functions, applications of differentiation, anti-derivatives, the definite integral, transcendental functions.” These courses have been approved by SUNY Albany, and students will be eligible to receive six college credits, for MAT 100 and MAT 112.

MSS65C: Applied Statistics With RStudio

- (5 periods per week, to be taken concurrently with AP Statistics)
- Sophomore students can take this course in lieu of Computer Science

Applied Statistics with RStudio is a class for students who are interested in taking a deep dive into the data and analyses that inform the meaningful decisions in the

world around us. Everything from route mapping for Uber to political polling, Netflix recommendations to financial analysis uses statistics. Students will learn to use a critical and statistical lens to look at current events, modern problems, and other topics of student interest. In order to aid in collecting, displaying, analyzing, and interpreting data, students will learn basic programming in RStudio, a professional data science software increasingly used in industries including engineering, technology, fashion, and finance. The course will culminate in a student-directed project that can be submitted to the American Statistical Association Project Competition for Grades 7-12.

MCS32C: Advanced Calculus Applications

- (5 periods per week)
- *Prerequisite:* Completion of SUNY Albany Calc 1 (A MAT 112)

Applications of calculus and an exploration of special topics. Will bolster students' preparation for Calculus 2 or AP Calculus BC in subsequent years.

Math Advanced Placement Course

MSS21X: Advanced Placement Statistics

- (5 periods per week + 5 periods per week RStudio corequisite)
- *Prerequisites:* Minimum Math average of 85 and passed all Math Regents exams with an 80 or better, or permission of department.
- **This course culminates with the AP Exam.**

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, and such research will be the focus of the corequisite course. 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.

COMPUTER SCIENCE COURSES

MKS11: Introduction to Computer Science

- (5 periods per week - Honors Version is MKS11H)

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

MQS21QP: Python and Computational Thinking

- (5 periods per week - Beginning with Cohort W, all students will take this course, AUS21QM or AYS21 in the sophomore year.)

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

MQS21QCC: Cybersecurity

- (5 periods per week)
- Can Fulfill Advanced Math Requirement
- *Prerequisites: One course in Computer Science*

In Introduction to Cybersecurity students learn about digital information, the ways in which that information is increasingly under threat of attack, and measures that individuals and organizations can take to protect themselves. Students will engage with foundational topics in cybersecurity such as digital citizenship, cyber hygiene, the basics of cryptography, software security, networking fundamentals, and basic system administration. Students who successfully complete the course will understand the risks of their digital world, ways to manage those risks, and how to be responsible citizens in a society that is ever more dependent on technology.

MKS21X: Advanced Placement Computer Science Principles

- (5 periods per week)
- *Prerequisites: Junior or Senior standing and a minimum average of 85 in Geometry, or permission of department.*
- **This course culminates with the AP Exam.**

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.

SCIENCE DEPARTMENT

BIOLOGICAL SCIENCE CORE COURSES

SLS21: Living Environment

- (5 periods per week: 4 recitation and 1 lab - Honors Version Available SLS21H)
- **This course culminates with the Living Environment Regents.**

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.

SLS43: Living Environment (Year 2)

- (5 periods per week: 4 recitation and 1 lab)
- **This course culminates with the Living Environment Regents.**

A continuation of SLS41/SLS42. No other students may enroll 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) / SBS11QA Animal Behavior (Spring)

- (5 periods per week)

Marine Biology focuses on 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)
- *Prerequisites: Minimum overall average of 80 and a minimum of 85 in Living Environment, or permission of department.*
- **This course culminates with the AP Exam.**

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.

PHYSICAL SCIENCE CORE COURSES

SCS21H: Honors Chemistry

- (5 periods per week: 4 recitation and 1 lab)
- **This course culminates with the Chemistry Regents Exam.**

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.

SES21: Earth Science

- Honors Version Available - SES21H
- (5 periods per week: 4 recitation and 1 lab)
- **This course culminates with the Earth Science Regents Exam.**

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.

SPS21: Physics

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

- **This course culminates with the Physics Regents Exam.**

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.

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.

SDS21QF: Forensic Science

- (5 days per week: 4 recitation and 1 lab)
- *Prerequisites: Student must have at least Sophomore standing and have passed at least one Science Regents.*

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.

SCIENCE ELECTIVE COURSES (NEITHER LIFE OR PHYSICAL)

SQS21UAN: SUNY Anthropology

- (5 periods per week)

Introduction to the issue of human diversity, the course poses the question of what it means to be human. Through study of biological anthropology, archaeology, linguistics, and ethnology, students will explore the range of diversity within our shared humanity, and seek explanations that might account for it. This course has been approved by SUNY Albany, and three credits will be offered as ANT 100.

SHS21T: Into to Health Science

- (5 periods per week)
- Fulfills CDOS credit. Not a life science. Not a physical science.

An Introduction to careers in the Health Science field, with an emphasis on skills to ensure success in Health Science college majors and careers.

SQS32T: Scientific Discovery and Development

- (5 periods per week)
- Fulfills CDOS credit. Not a life science. Not a physical science.

An introduction to the research process and laboratory techniques, with embedded exploration of careers in laboratory science.

SOCIAL STUDIES DEPARTMENT

SOCIAL STUDIES CORE COURSES

HGS41Q9: Global History - Humanities

- (5 periods per week - Honors Version Available HGS41H)

An integrated and team-taught introduction to English and Global History using the Big History Project and Bickerstaff and Graf's *They Say / I Say* as core resources. The focus is on expository writing and the development of academic writing skills.

HGS43: Global History: Modern History

- (5 periods per week - Honors Version Available: HGS43H)
- **This course culminates with the The Regents Exam in Global History II.**
- **One-Semester (2 credit) Version Available HGS22**

World History from 1750 to the present. This course includes the practice in analyzing historical documents.

HUS21: US History

- (5 periods per week - Honors Version available HUS21H)
- **This course culminates with the US History Regents.**
- **One-Semester (2 credit) Version Available - HUS11**

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.

HVS11 & HES11: Participation in Government & Economics

- (5 periods per week)
- **Required for graduation.**

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. The Economics course includes supply and demand, the economics of the public sector, banking, labor, taxation and international trade. Comparisons will be made with other economic systems. A key focus of the course is the application of economic reasoning to contemporary public issues.

SOCIAL STUDIES ADVANCED PLACEMENT COURSES

HFS21X: Advanced Placement US Government

- (5 periods per week)
- **This course culminates with the AP Exam.**

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.

HFS21XW: Advanced Placement Microeconomics

- (5 periods per week)
- **This course culminates with the AP Exam.**
- Students must have passed the Geometry course and Regents Exam and be concurrently enrolled in Algebra 2H.

This course, taken in place of a required senior social studies class, prepares students for the AP Microeconomics exam. Microeconomics is the study of interactions among individuals, markets, and the government in specific sectors (as opposed to macroeconomics, which studies the economy as a whole). Units of the course are: Introduction and Tradeoffs, Supply and Demand, Market Structure, Factor Markets, and Market Failure & the role of government. This course will make use of the “flipped classroom” model for instruction and will incorporate the use of technology. Fluency with arithmetic and algebra are expected. After the AP Exam, units on US Government will be included, including a Participation in Government experience.

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: Constitutional Law

- (5 periods per week)

This class will cover a wide range of topics in Constitutional Law, including the nature and structure of the Constitution, Federalism, and the Separation of Powers. We will also closely examine the Bill of Rights, the role of the Supreme Court in American government, the scope of Judicial Review, and the 14th Amendment's Due Process and Equal Protection clauses. Classes will mostly be discussion-based and inquiry-driven. The goal of this class is to provide students with a basic legal education, improve their oral argument skills, and develop their analytical writing skills.

HLS21QQR: Race & The Law

- (5 periods per week)

This course will examine how race historically and currently intersects with laws and policies in the U.S. We will discuss a variety of topics, including de jure and de facto segregation, the racist roots of American policing, race and criminal justice as well as race and civil justice. As a result, by the end of the course, students will be able to: 1) examine our current legal system and policies 2) draw conclusions regarding the purpose of those policies and 3) express how best to institute organizational reform to eliminate and overcome barriers to justice and economic success.

HLS21QMT: Moot Court/Mock Trial

- (5 periods per week - Special Permission Required)

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.

ART/MUSIC DEPARTMENT

DANCE COURSES

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

- (5 periods per week)

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.

PDS43: Advanced Dance (PE Credit)

- (5 periods per week)

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 2nd 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)

An introduction to Digital Music.

ART COURSES

AQS11Q9: Introduction to Art

- (5 periods per week for One Term - also available for Anne Hutchinson Program students as AQS11Q9H)

Beginning with Cohort X, all 9th graders will take this course for one term. Flips with Introduction to Computer Science. An introduction to art, using the Adobe Fresco platform.

AUS21QM: Art Fundamentals: Minecraft

- (5 periods per week - Beginning with Cohort W, students take either this course,, or MQS21QP in the Sophomore Year)

Students learn art concepts while exploring the Elements and Principles of Design through “hands on” and “virtual” art projects in the world of Minecraft. Students work independently and collaboratively to develop a portfolio of artwork inspired by Minecraft. Projects include elaborate name designs, perspective & pixel drawings, Minecraft skin character drawings & sculptures, Moon and Atlantis

Community Colonization project, house & mansion design, amusement park and rollercoaster construction, Pop Art sculpture world, NYC rooftop gardens, Vertical garden world and independent work in a personal creative world.

AKS61: Film/Video 1

- (5 periods per week)

Filmmaking is a project based problem solving course. Students work independently and collaboratively to learn and apply key aspects of digital video filmmaking. This includes brainstorming, script writing, storyboarding, editing, timing, transitions, title, credits, visual effects, sound effects, pan, zoom and animations. Once students are familiar with the techniques and terms, they apply their new skills to bring ideas to life by creating their own films. Projects include Autobiography, Story films, music videos, movie & video game trailers, documentary films, A-Z films and Social Issue films.

AKS63: Film/Video 2

- (5 periods per week)

A continuation and application of Film/Video techniques, including independent projects in support of school events.

AKS65: Film/Video 3

- (5 periods per week)

A continuation and application of Film/Video techniques, including independent projects in support of school events.

ACS41: Darkroom Photography

- (5 periods per week)

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.

AZS41: Cartooning- Comic Creations

- (5 periods per week)

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. Projects include “Wiggle” and name transformations, self-caricature development, body gestures & poses, kinetic “TP” action figures, pop up scenes, gag drawings, comic strips, A-Z character challenge and superhero costume and comic cover design.

CGS11: Fundamentals of Theater

- (5 periods per week for one term)
- First-Year students only

An introduction to theater fundamentals for first-year students

CJS21: Drama 1

- (5 periods per week)

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

- (5 periods per week)

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.

AUS41: Media Foundations

- (5 periods per week)

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)
- Counts for CDOS Hours

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)
- Counts for CDOS Hours
- *Prerequisite: Information Technology II*

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.

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)
- Counts for CDOS Hours
- *Prerequisite: Computer Repair IV*

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.

RZS21QY: CDOS Work Study

- (5 periods per week)
- Counts for CDOS hours
- Internship/work experience Required (either in-school or outside of school)

Participation in work-based learning activities and develop of a portfolio in satisfaction of the CDOS requirements.

TWS21T: Microsoft Office Applications

- (5 periods per week)
- Counts for CDOS hours

An introduction to Microsoft Office, potentially leading to certification

TTS21T: Technology Applications

- (5 periods per week)
- Counts for CDOS hours
- Placement by Department Approval, Designed for 9th and 10th graders

An introduction to applications of technology, with applications in programming, robotics, and engineering.

FOREIGN LANGUAGE

FSS61: Spanish 1 & 2

- (5 periods per week - also available for honors FSS61QAH)

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

- (5 periods per week)
- *Prerequisite: FSS62*

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.

FSS65: Spanish 5 & 6

- (5 periods per week)
- *Prerequisite: FSS64*

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.

FSSA7X: Advanced Placement Spanish Language

- (5 periods per week)

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

- (5 periods per week)

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

PPS11: General Physical Education

PPS11QWT: Weight training

PPS11QFT: Fitness

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

PDS43: Advanced/Company 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 (MKS21) - One Term

10th Grade: Programming in Python (MQS21QP or MQS21HP) or RStuido (MSS65C) - Full Year

11th Grade: Cybersecurity (MQS21QCC) or AP Computer Science Principles (MKS21X)

12th Grade: AP Computer Science Principles (MKS21X) or AP Computer Science Java (MKS21XA)

DIGITAL ART

Course Sequence:

9th Grade: Introduction to Art (AQS11Q9) - One Term

10th Grade: Fundamentals of Art (either Adobe Illustrator or Minecraft) - Full Year

11th Grade: Film/Video 1 (AKS61)

12th Grade: Advanced Film/Video (AKS63) or Photoshop (AUS41)

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 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. 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)

Anne Hutchinson Academy Program Requirements

Academic Requirements

Given the structure of LHS academic requirements, Honors students (entering or continuing) should take a least three Honors/AP/SUNY classes a year, and many will take more than that. Therefore, to be recognized as an AHA graduate (honor cords at graduation) students should complete a minimum of 24 such credits (3 per semester for four years), designated on the transcript by an X,H, or U in the sixth place.

Students are expected to take a math or science course every year of high school, beginning with Cohort V.

To remain in the Honors Academy, students need to make satisfactory academic progress, defined minimally as having no credit gaps in core subjects by the end of Term 7 of an academic year (in other words, students must make up any failed classes during Summer School). Students must also maintain satisfactory attendance. In the event that a student is labeled “chronically absent”, appropriate documentation will be requested. Students who are chronically absent without documentation may be dropped from the program.

Requirement for Culminating Experience

In keep with the Honors Academy STEM focus, and our schoolwide focus on engaging and empowering students, a culminating experience will be required. It can take any of the following forms:

- 1) The default option is participation in the WISE Quality of Life Innovations Research Program. This course, which engages teams of students in selecting, researching, and proposing solutions to a problem in their community and in writing an empirical report, will require students to use skills from across the four core subject areas.
- 2) Submission of a project to the Regeneron Science Talent or New York City Science & Engineering Fair.
- 3) Other competitions of similar rigor, with prior approval. In any event, a written empirical paper is required.

In the Spring, there will be a Research showcase (poster session) and dinner. Parents/Families will be invited.

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"> ● Algebra I, ● Geometry, AND ● Algebra II 	65+ on one math exam: <ul style="list-style-type: none"> ● Algebra I, ● Geometry, OR ● Algebra II
Social Studies	65+ on one social studies exam: <ul style="list-style-type: none"> ● US History AND ● Global History & Geography 	65+ on one social studies exam <ul style="list-style-type: none"> ● US History OR ● Global History & Geography
Science	65+ on Living Environment AND one other science exam: <ul style="list-style-type: none"> ● Earth Science, ● Chemistry, OR ● Physics 	65+ on one science exam: <ul style="list-style-type: none"> ● Living Environment ● Earth Science, ● Chemistry, OR ● Physics
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