



Livingston
PUBLIC SCHOOLS

Livingston High School

Course Guide

2023 – 2024

30 Robert Harp Drive, Livingston NJ 07039

[Livingston High School](#)

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Changes for the 2023-24 School Year

Below, please find notable changes for the 2023-2024 School Year summarized.
All changes will go into effect starting July 1, 2023.

- **Clarification of “Open Access” at LHS - page 16**
 - Language has been added to this year’s course guide to ensure that the goal of Open Access is clearly articulated. “Open Access is designed to create opportunities for students to challenge themselves in areas of interest. It is not meant to create “course sampling.” By selecting a course against a teacher recommendation, students are expected to commit themselves to the coursework. In addition to teacher recommendations, school counselors are available to assist and support students and parents throughout the scheduling process.”
- **Administrative Discretion for Specific Course Selections - page 167**
 - Students will need administrator approval to self-select an AP course after taking the prerequisite at the CP level.
 - Should a student decide to change to a lower level course during one of the Schedule Change Windows, that student would require administrative approval prior to self-selecting into the higher level course in that subject again the following year.
 - Please know that during the school year, school administrators will work with families and school counselors and use their discretion to change a student’s course level based on academic performance or other circumstances.
- **Revised Schedule Change Windows - page 19**
 - There have always been four Schedule Change windows available to students. One over the summer and three during the school year. In the interest of clarity, we are renaming the Schedule Change Window during the summer as Window 1. The remaining three windows will now be known as Windows 2, 3, and 4 and occur after the start of the school year. Details of each window are outlined.
- **Elimination of the “Withdraw Pass - WP”/“Withdraw Fail - WF” in favor of “Withdrawn - W” - page 20**
 - Dropping a course in the fourth Schedule Change Window now be recorded on a student transcript with a “W” notation.
- **Dual Enrollment Courses At A Glance information added - page 27**
 - A quick reference chart with these course names was added.
- **New Courses for 2023-2024 - Course descriptions available under the relevant department.**
 - AP African American Studies (pilot year - no AP exam)
 - AP Microeconomics
 - AP Precalculus
 - AP Precalculus with Introduction to Calc BC
 - Dance 3
 - Introduction to Computer Assisted Design (CAD)
 - Senior Mentors
 - World Religions
- **Renamed Courses**
 - Virtual Enterprise (formerly Global Business)
 - Natural Resources & Ecology (formerly Sustainability Science)
 - Course will use the CASE curriculum and become a dual enrollment option to enable students to earn college credit from Rutgers University.
 - Students can now take Natural Resources and Ecology as a lab science course serving as an alternative to Environmental Science.

How to Use the Course Guide

Livingston High School's Course Guide is a valuable guide for students, parents and school personnel; it is a complete guide of high school graduation requirements, course offerings, scheduling information, course planning tools and post-secondary planning resources.

- Each content area has described its specific course offerings and highlighted the chief components of each course.
- Planning an individual student's high school program of studies requires a cooperative effort between home and school. The courses that a student pursues in high school should reflect their interests, aspirations and aptitudes. The courses at Livingston High School provide students with many opportunities to meet educational needs. In addition to State, District, college and career requirements, students are encouraged to select courses that will be academically stimulating and personally enriching. All students, parents and school personnel are recommended to use this resource for current and future planning, as well as to access important information about high school opportunities and post-secondary planning.
- Students are encouraged to utilize the detailed information provided in the course guide to be informed of the opportunities and choices they have to take advantage of at Livingston High School. Programs such as Course Preview Day, the transition into high school and post-secondary planning provide students and parents the opportunity to explore student interests and make informed decisions. Many courses have prerequisite or corequisite requirements in order to enroll to ensure that students have been exposed to the required content and skills to find success. Within the Courses of Study section, you will find each content area includes a course description for every course offered at Livingston High School.

IMPORTANT 2023-2024 SCHEDULING DATES

January 12	Course Preview Day
January 30	All AP Applications are due by 8:00 a.m.
February 8	Teacher recommendations are posted in Genesis
February 10 – March 31	Individual student scheduling meetings with school counselor
April 1 - April 13 (Including Spring Break)	Course Verification: Student/parent deadline to confirm course selections in Genesis and to request any change prior to master schedule construction
June 19 - June 22	Course lists for 2022-2023 schedules posted in Genesis. Students/parents must sign and acknowledge that they have viewed this course confirmation list.
June 23 – August 10	Summer schedule change window
August 10	Deadline to request schedule changes by 3:00 p.m.
Late August	Student schedules posted in Genesis

High School Graduation Requirements

While these are the requirements as per the New Jersey Department of Education (NJDOE) for graduation, please consult with your school counselor regarding your post-secondary program goals and specific requirements.

Subject Area	Years Required	Credits Required
English Language Arts	4	At least 20 credits in English Language Arts aligned to grade nine through 12 standards.
Health & Physical Education	4	At least 3 $\frac{3}{4}$ credits in Health, Safety, and Physical Education during each year of enrollment, distributed as 150 minutes per week, as required by N.J.S.A. 18A:35-5, 7 and 8.
Mathematics	3	At least 15 credits in mathematics, including Algebra I or the content equivalent; Geometry or the content equivalent; and a third year of mathematics that builds on the concepts and skills of Algebra and Geometry and that prepares students for college and 21st century careers.
Science	3	At least 15 credits in science, including at least five credits in laboratory Biology/Life Science or the content equivalent; one additional laboratory/inquiry-based science course, which shall include Chemistry, Environmental Science, or Physics; and one additional laboratory/inquiry-based science course.
Social Studies	3	At least 15 credits in social studies, including satisfaction of N.J.S.A. 18A:35-1 and 2 and five credits in World History; and the integration of Civics, Economics, Geography and Global Content in all course offerings. N.J.S.A. 18A:35-1 and 2: Requires 2 years of US History in high schools including history of New Jersey and of African Americans.
21 st Century Life and Careers, or Career-Technical Education	1	At least five credits in 21st Century Life and Careers or Career-Technical Education.
Visual and Performing Arts (Art/Music/Theatre)	1	At least five credits in Visual and Performing Arts.
World Languages	1	At least five credits in World Languages or student demonstration of proficiency through successful completion of assessments that verify student achievement in meeting or exceeding the NJSLs at the high school level.
Financial, Economic, Business and Entrepreneurial Literacy	$\frac{1}{2}$	At least 2.5 credits in financial, economic, business, and entrepreneurial literacy.
Technological Literacy	-	Technological Literacy, consistent with the NJSLs, integrated throughout the curriculum.
Graduation Assessment Requirement	As referenced on page 6 of this document, students must also complete assessments as specified below in order to be eligible for graduation.	

School districts may establish course and/or credit requirements that exceed the state minimums.
Livingston High School requires 125 credits for graduation.

Livingston High School Mission Statement

Livingston High School will provide a safe and positive learning environment for all students. Building upon the strengths, talents and resources of students, educators and the community, our program will empower students to develop intellectually, emotionally, socially and physically. Our dynamic course of study will seek to foster respect and appreciation for equity, diversity and cultural richness. The continuous evolution of our curriculum will recognize change and promote technological literacy. Livingston High School is committed to the integration of ethical values and decision-making abilities enabling our students to be active participants in local and world communities.

New Jersey Student Learning Standards

New Jersey Department of Education
N.J.A.C. 6A:8-3.1(c)2

The Livingston Board of Education shall be responsible for the review and continuous improvement of curriculum and instruction based upon changes in knowledge, technology, assessment results, and any modifications to the New Jersey Student Learning Standards (NJSLS).

New Jersey Graduation Requirements

New Jersey Department of Education
N.J.A.C. 6A:8-5.1

The Livingston Board of Education shall develop, adopt, and implement local graduation requirements, for a State-endorsed diploma, that prepare students for success in post-secondary programs, careers, and civic life in the 21st century according to N.J.A.C. 6A:8-5.1(a).

The Livingston Board of Education certifies annually to the County Superintendent of Schools that each pupil who has been awarded a diploma has met the New Jersey State requirements for graduation, which shall include a minimum of 125 credit hours to meet all of the NJSLS, completion of all course requirements listed below, passing scores on the New Jersey Student Learning Assessments (NJSLA-ELA and NJSLA-Math) or competency demonstrated through assessments listed below, and satisfactory attendance according to the school's attendance policy.

NJ Graduation Assessments

ELA and Math Assessment Requirements for Class of 2024 & 2025

On September 8, 2021, the State Board of Education adopted graduation assessment requirements for the classes of 2024 and 2025. The new regulations comply with State statute (N.J.S.A. 18A:7C-1 et seq.) and require, as a prerequisite for graduation, all students to demonstrate proficiency by achieving a passing score on the English language arts (ELA) and mathematics components of the New Jersey Graduation Proficiency Assessment (NJGPA). The NJGPA assessment is aligned to New Jersey Student Learning Standards (NJSLS) for grade 10 ELA, Algebra I and Geometry. Alternatively, a student's Individualized Education Plan (IEP) may dictate that they take the Dynamic Learning Maps assessment as their NJ graduation assessment.

After completing the NJGPA in grade 11, should students not demonstrate proficiency, such students may access the second and third pathways outlined below:

Pathways Available	English Language Arts/Literacy (ELA)	Mathematics
First Pathway: Demonstrate proficiency on the New Jersey Graduation Proficiency Assessment (NJGPA) in grade 11.		
	NJGPA \geq 750	NJGPA \geq 750
Second Pathway: **This pathway is only available to students who do not demonstrate proficiency on the NJGPA in grade 11.		
Second Pathway:	<ul style="list-style-type: none"> • NJSLSA/PARCC ELA Grade 9 • SAT Critical Reading (<i>taken before 3/1/16</i>) • SAT Evidence-Based Reading and Writing Section (<i>taken 3/1/16 or later</i>) • SAT Reading Test (<i>taken 3/1/16 or later</i>) • ACT Reading or ACT PLAN Reading* • ACCUPLACER WritePlacer • ACCUPLACER WritePlacer ESL • PSAT10 Reading or PSAT/NMSQT Reading (<i>taken before 10/1/15</i>) • PSAT10 Reading or PSAT/NMSQT Reading (<i>taken 10/1/15 or later</i>) • ACT Aspire Reading* • ASVAB-AFQT Composite 	<ul style="list-style-type: none"> • NJSLSA/PARCC Algebra I • NJSLSA/PARCC Geometry • NJSLSA/PARCC Algebra II • SAT Math (<i>taken before 3/1/16</i>) • SAT Math Section (<i>taken 3/1/16 or later</i>) • SAT Math Test (<i>taken 3/1/16 or later</i>) • ACT or ACT PLAN Math • ACCUPLACER Elementary Algebra • Next-Generation ACCUPLACER Quantitative Reasoning, Algebra, and Statistics (QAS) (<i>beginning January 2019</i>) • PSAT10 Math or PSAT/NMSQT Math (<i>taken before 10/1/15</i>) • PSAT10 Math or PSAT/NMSQT Math (<i>taken 10/1/15 or later</i>) • ACT Aspire Math* • ASVAB-AFQT Composite
Third Pathway: **This pathway is only available to students who do not demonstrate proficiency on the NJGPA in grade 11.		
	Meet the criteria of the NJDOE Portfolio Appeal for ELA	Meet the criteria of the NJDOE Portfolio Appeal for Mathematics

ELA and Math Assessment Requirements for Class of 2026

This will be updated as soon as information is provided from the NJ Department of Education.

For more information, please visit the [NJDOE website](#).

Independent Student Learning Opportunity (ISLO)

Livingston High School students have an opportunity to earn course credits outside of the school district for advanced coursework provided the student adheres to LPS procedures. Students are not eligible to take an ISLO course until the completion of ninth grade. **The 2023-2024 ISLO Information Packet will be posted on the LHS School Counseling website by February 2023.** For more information and procedures, please [click here](#). This website will be updated as soon as possible with the 2023-2024 information packet and application.

Summer School

Livingston High School offers a variety of ways for students to remediate or accelerate their program of study. The School Counseling Department provides information regarding these options:

- Livingston Public Schools Summer Academy
 - Acceleration Courses (including LPS-taught ISLO options)
 - Remediation Courses
 - Enrichment Courses
- Courses at neighboring schools
- Online providers

*Students may only register for courses that have been pre-approved by department supervisors.

For additional information please access the Summer Academy webpage.



College Admission Requirements

It is important to be aware that the requirements for college admission may differ from the requirements for graduation from high school. It is each student's responsibility to research information regarding the expectations of specific college choices. The Livingston High School School Counselors and College Counselor are available to assist with the process. Throughout the Course Guide, you will see the requirements outlined that are defined by the NJDOE for graduation. Please consult with your school counselor regarding your post-secondary program goals and specific requirements.

All students must complete the requirements for graduation from Livingston High School. High school graduation requirements, at the minimum, may or may not prepare a student for entrance into a specific college. Generally, colleges expect students to have taken four years of English, three to four years of college-preparatory mathematics, three years of college-preparatory laboratory sciences, two to four years of college-preparatory World Language and three years of college-preparatory social studies. College selectivity must be considered related to high school programming. Students and parents are encouraged to explore and research post-secondary interests by using our Naviance database.

Students who have specific goals should concentrate on taking courses in specific areas of interest during their high school career. Students are encouraged to try courses in different departments to explore their interests and possible post-secondary ventures. Students should aim to become well-rounded learners and take advantage of opportunities in various departments, as this will further challenge each student to learn, create, contribute and grow.

Career Programs

There are a variety of programs available for students who plan to attend a career or trade school or enter the workforce immediately after graduation. A student interested in these options should meet with their school counselor to investigate the occupational, business, and work-study programs offered at Livingston High School. Essex County Schools of Technology offer many valuable shared-time and full-time programs for students. Parents are encouraged to speak with counselors at Heritage Middle School and Livingston High School as a resource for assisting with program planning during high school and post-secondary planning.

Course offerings in the Business and Technology sections of the course guide provide detailed information about specific courses that are of value to the student who is interested in furthering his/her career and post-secondary interests, trade, technical or work-experience focus during high school.



NCAA Initial Eligibility Requirements

All prospective student-athletes who want to play NCAA Division I or II intercollegiate athletics must be certified by the NCAA Eligibility Center to be eligible to play.

To be certified by the Eligibility Center, a student must:

- Graduate from high school.
- Complete and submit an application for certification after the junior year.

The NCAA Eligibility Center will issue a preliminary certification report when all materials have been submitted. Following graduation from high school, the NCAA Eligibility Center will review the final high school transcript and will make a final certification decision according to NCAA standards.

It is each student's responsibility to check online for all regulations and updates.

[NCAA Eligibility Center Website](#)

[NCAA Student Athletes Website](#)

This comprehensive site provides all the information resources needed to initiate the application process. Specific information regarding eligibility may be accessed by contacting the eligibility center staff.

If you have questions about your eligibility or the registration process, call: 1-877-262-1492.

Please note:

It is important that a student and their parents speak with the School Counselor regarding NCAA eligibility requirements in regard to course selections and levels. It is also important for parents and students to access the NCAA eligibility center website to check for a list of approved courses taught at Livingston High School. Please visit the [LHS School Counseling website](#) for more information on reviewing the NCAA approved courses at Livingston High School.

For more detailed information on Division I, II and III requirements, please [click here](#) or visit the [LHS School Counseling website](#).

Essex County Schools of Technology

General Information Requests for Admissions Information should be emailed to: info@essextech.org

ESSEX COUNTY SCHOOL OF TECHNOLOGY (660 AM, 661 PM) Prerequisite: Exploratory Experience/Related Activities.	Grades 9-12 Full Year
Minimum Requirements: <ul style="list-style-type: none"> • Officially reside in Essex County. • Have an updated Health Record. • Have an acceptable attendance and behavior record. • Complete an application signed by the parent or guardian and a Livingston High School Counselor. • Be committed to successfully completing all academic and/or Career and Technical Education (CTE) courses required by chosen program. 	

Essex County Newark Tech

- Advanced Manufacturing: Welding
- Advanced Manufacturing: Cabinet Making
- Business Organization & Management
- Certified Nursing Assistant
- Emergency Medical Technician
- Medical Assistant
- Automotive Service Technician
- Engineering Technology

Essex County Payne Tech

- Business Organization & Management
- Engineering Technology
- Computer Science
- Culinary Arts
- Law & Public Safety: Policing, Engineering, Emergency Management
- Fashion Design
- Graphic Arts & Design
- Web & Game/App Design
- Construction Trades Technology: Plumbing, Electrical, Carpentry, Masonry
- Cosmetology
- TV & Film Production
- Music Technology

Essex County West Caldwell Tech

- Culinary Arts
- Animal Science
- Carpentry
- Cosmetology
- Graphic Arts & Design
- Business Organization & Management
- Music Technology
- Automotive Service Technician
- Robotics/Engineering Technology

Essex County Schools of Technology (previously Essex County Vo-Tech) provides students interested in specific vocational or technical fields with the opportunity to participate in education and training. Career and Technical Education (CTE) programs are offered in accordance with each location shown above. All educational programs offer a variety of academic courses and CTE programs that meet the needs and interests of all students, including Gifted and Talented, English Language Learners, and Special Education.

Essex County Schools of Technology offers admission to students who can benefit from the programs offered. General school records, including attendance and grades are carefully reviewed in determining whether a prospective student has the ability, aptitude, and interest needed to master the skills and knowledge required in the chosen training area. Students must complete the Essex County Schools of Technology application, which includes writing an essay on their interests that will be considered in their review for admission into the program. Many students attend college following an education at a vocational-technical high school. Students are transported to and from their Tech campus.

Explore these links to view the course catalog, including AP course offerings, for each of the Essex County Schools of Technology: [Newark Tech website](#), [Payne Tech website](#), [West Caldwell Tech website](#).

Program Planning

The information below should be used as a guide for program planning as each student and parent works to select courses for each year of high school. A [four-year planning worksheet](#) is available as a part of the course guide to assist with this process.

Students and parents should review the course guide and discuss course selections prior to the student-counselor scheduling meeting. Students and parents can contact their school counselor with questions regarding course selection and long-term planning. Teachers should be contacted to best understand a recommendation that has been made or to inquire about future curriculum demands. Students are encouraged to discuss plans with their parents in preparation for their meeting with their school counselor.

Important Scheduling Points

- A thorough review of the course guide should be conducted by students and parents with close attention to course expectations, course levels and prerequisites.
- A student's program should be determined through discussions with their teachers, school counselor and parent with a focus on a student's educational and career goals, individual student interests and abilities.
- All students are expected to register for a minimum of 35 credits per academic year.
- Students may only schedule one study hall period per year. Students cannot have two study hall periods within the same semester.
- Scheduling for students with IEPs must follow recommendations of the Child Study Team.
- Course requirements for graduation take priority in the scheduling process over elective courses. Therefore, elective courses chosen during a scheduling conference are tentative.
- A verification of student course requests will be accessible in Genesis after the student meets with their school counselor for their annual scheduling meeting. This course verification list will be available through **March 31, 2023**. Students are responsible for notifying their school counselor in writing to request a course selection change after their scheduling meeting.
- Parents will be notified via email and on the LHS website of the deadlines for course request changes. Students have the following opportunities to make changes to their requests:
 - Throughout the scheduling process (February through the end of March).
 - The summer, from **June 23, 2022** up until the schedule change deadline of **August 10, 2023**.
 - Three schedule change windows in the first marking period (see the chart for [Schedule Changes During the School Year](#)).

Scheduling

Many core courses are offered through Livingston High School on different ability levels: General, College Preparatory, Honors, and Advanced Placement. It is important for students to consider their interests, abilities, and time constraints when selecting a course schedule and especially a course level. One Honors or AP course might work with a rigorous sports schedule, but three AP courses might negatively impact a student's life. Remember that courses should be selected based on individual abilities and needs.

General classes are based on the recommendation of the Child Study Team for students with an Individualized Education Program (IEP). These courses are designed to accommodate various learning needs and differences. Specialized instruction is an imperative within these classes, helping students to achieve their individualized goals and objectives while providing instruction that targets the curricular standards for the subject.

College Preparatory (CP) classes are the standard college preparatory level courses requiring students to work independently and have strong organizational skills.

Honors Level (H) courses require advanced facility with reading, written and spoken language. Strong organizational skills and the ability for a student to work independently are required. Students are challenged to think abstractly and to demonstrate a facility with problem-solving skills in honors level classes. Students are expected to engage in independent study and learning.

Advanced Placement (AP) courses follow a national curriculum that presents college-level work to high school students. AP courses require advanced facility with reading, written and spoken language. The pace of these courses requires advanced skills related to work ethic, and thinking and reasoning skills. Students are encouraged and expected to take the AP level exam in the subject studied; however, taking the AP exam is not a requirement. AP courses are demanding and require a high amount of independent study and learning on the part of the student.

Open Access

Livingston High School is committed to providing all students access to curriculum and courses. Encouraging students to enroll in challenging courses provides the opportunity for students to raise their achievement levels, ensure postsecondary success, and career readiness.

Classes are offered at various levels of difficulty. Students are supported in taking rigorous courses at the Honors or Advanced Placement (AP) level in areas where they have interest or career aspirations. Past performance, student success and teacher recommendation in a subject area are key indicators of future success.

LHS offers open access for all students to take Honors and AP courses. These courses follow a rigorous curriculum extension of the college preparatory course and often require higher levels of workload, including extensive independent study by the students.

Teachers make recommendations from required applications to guide students to select the most appropriate program and course level. In considering these recommendations, students and parents are encouraged to select an appropriate course load that balances curriculum demands with a healthy, well-rounded lifestyle.

Open Access is designed to create opportunities for students to challenge themselves in areas of interest. It is not meant to create “course sampling.” By selecting a course against a teacher recommendation, students are expected to commit themselves to the coursework. In addition to teacher recommendations, school counselors are available to assist and support students and parents throughout the scheduling process. Students are encouraged to visit classes of interest during Course Preview Day (and visit the course overview screencasts available online) and communicate with their teachers about recommendations, as well as with their parent(s) in preparation of selecting their courses with their school counselor.

Parents and students should consider every Advanced Placement (AP) and Honors course selection carefully to ensure success and avoid dramatic schedule changes. Students are expected to maintain the pace of an Honors or an AP course throughout the year. Communication will be prioritized for students who earn a grade of a C- or below at the end of the first quarter to include teachers, school counselors, and/or administrators meeting with students and families to assist individuals in making good decisions and determining a plan for moving forward in the school year. In specific cases, administrative discretion will be used as necessary, including decisions regarding future scheduling plans. Students choosing to drop the course during the last schedule change window, will have a Withdraw, “W,” noted on their transcript for the dropped class.

Additionally:

- Students will need administrator approval to self-select an AP course after taking the prerequisite at the CP level.
- Should a student decide to change to a lower level course during one of the Schedule Change Windows, that student may require administrative approval prior to self-selecting into the higher level course in that subject again the following year.
- Please know that during the school year, school administrators will work with families and school counselors and use their discretion to change a student’s course level based on academic performance or other circumstances.

Course Availability

It is advisable that students consider additional/alternate course options during their scheduling process in the event that a course may not be offered or fit into their schedule. A course may not be offered during a given school year for many reasons (see below). Conversely, student schedules and/or graduation requirements may also impact whether or not a student can enroll in a given course.

- Class size limits. Limits are established in order to provide optimal educational opportunities for students, and the district makes every attempt to adhere to these limits.
- Low enrollment.
- Budgetary constraints.

In order to provide the broadest program possible to meet the individual needs of students, a wide selection of electives is available in all subject areas. Most of these courses are offered on a full-year basis; however, there are also semester course offerings.

For information regarding level changes, please see the [Schedule Change Procedures section](#).

[Four-Year Planning Worksheet](#)

Click on the link above to make your own worksheet.

NJDOE HS graduation requirements are listed below. Please consult with your school counselor regarding your personal post-secondary program goals which may encourage or require additional coursework requirements.

COURSES	Grade 9	Grade 10	Grade 11	Grade 12
English 20 credits, 4 years required				
Health/PE 20 credits, 4 years required				
Mathematics 15 credits, 3 years required				
Science 15 credits, 3 years required *3 lab sciences				
Social Studies 15 credits, 3 years required				
21st Cent. Life & Careers (Business or Technology) 5 credits, 1 year required (one 5 credit course or two 2.5 credit courses)				
Visual & Performing Arts (Art/Music/Theatre) 5 credits, 1 year required (one 5 credit course or two 2.5 credit courses)				
World Language 5 credits, 1 year required				
Financial Literacy 2.5 credits, ½ year required				
Total Credits 125 credits required				
Required Competency Assessment(s)				

Four-Year Schedule Planning Exemplar

Courses should be selected based on an eight-period rotating drop schedule.
Students must register for 35 credits annually.

NJDOE HS graduation requirements are listed below. Please consult with your school counselor regarding your personal post-secondary program goals which may encourage or require additional coursework.

COURSES	Grade 9	Grade 10	Grade 11	Grade 12
English 20 credits, 4 years required	English 1	English 2	English 3	English 4
Health/PE 20 credits, 4 years required	Physical Education/ Health 9	Physical Education/ Driver Ed.	Physical Education/ Health 11	Physical Education/ Health 12
Mathematics 15 credits, 3 years required	Algebra 1	Geometry	Algebra 2	Pre-Calculus (optional)
Science 18 credits, 3 years required *3 lab sciences	Biology	Chemistry	Environmental Science	Human Body (optional)
Social Studies 15 credits, 3 years required	Modern World History	US History 1	US History 2	Modern European History (optional)
21st Cent. Life & Careers (Business or Technology) 5 credits, 1 year required (one 5 credit course or two 2.5 credit courses)	Computer Applications	Introduction to CAD (Optional)	Foods & Nutrition (Optional)	Entrepreneurship (Optional)
Visual & Performing Arts (Art/Music/Theatre) 5 credits, 1 year required (one 5 credit course or two 2.5 credit courses)	Theatre Arts 1	Digital Imaging (Optional)	Mural Painting (Optional)	Digital Imaging 2 (Optional)
World Language 5 credits, 1 year required	Spanish 1	Spanish 2 (optional)	Spanish 3 (optional)	Spanish 4 (optional)
Financial Literacy 2.5 credits, ½ year required			Personal Financial Literacy	
Total Credits 125 credits required	41	41	41	41
Required Competency Assessment(s)	NJGPA ELA NJGPA Math			

Schedule Change Procedures

Schedule Changes During the Summer

The deadline for any schedule change request during the summer months must be made by:

Thursday, August 10, 2023 at 3:00 PM.

- It is strongly suggested that each student review their final grades and overall performance with teachers, parents and school counselor to determine if a level change is appropriate.
- Elective and level changes will be honored during the summer change window prior to the deadline and based upon availability of the course.

Should a schedule change be necessary, students should complete the Schedule Change online form available on the LHS website from June 23 through August 10, 2023. School counselors are available throughout the summer, Mondays through Thursdays. The summer staffing schedule will be made available on the [LHS website](#) or students and parents can contact Mrs. Terrie Lieberman in the school counseling office for assistance: (973) 535-8000 ext. 8060 or TLieberman@livingston.org.

After August 10, 2023, schedule change requests will not be permitted before the first schedule change window unless it is a:

- Correction of a scheduling error.
- Addition of a required course.
- Addition of credits required by seniors for graduation.
- Adjustment for summer school or ISLO completion.

Requests for teacher changes based on perceived teacher personality or preferred teaching styles will not be honored. Livingston High School has an obligation to ensure equity in placement for all students based on their course needs. Any request for a teacher change will not be considered without the following:

- There should be documented history of conflict. Please contact your school counselor or assistant principal.
- Any requests must be made in writing to the LHS Administration.

LHS Schedule Change Windows

A student may change a level or drop a course during four schedule change windows. Each of these windows carries with it different permissions as well as procedures for calculating the first semester grade.

*Please note: Schedule change requests made during Windows 2, 3 and 4 come at the risk of disruption to a student's existing schedule. Efforts are made to minimize the impact to a student's schedule; however, this cannot be guaranteed.

Change Window	Changes Permitted	Transcript Notation	Schedule Change Type	Grade Calculation for 1st Semester
1 Summer Window (June 23 - August 10)	Move up or Drop in level and Elective Changes*	None	Online Form	Grade = 100% from new course. Students will complete all summer assignments by the start of the school year.

2 During School Year	Move Up or Drop in level*	None	Paper Form	<p>Grade = 100% from new course.</p> <p>Moving up a level: Students will make up work, including any summer assignment, within two weeks of entering the course (unless directly stated by the department).</p> <p>Dropping down a level: Students will make up all missing work with the exception of summer assignments.</p>
3 During School Year	Drop in level only*	None	Paper Form	Grade = 25% from original course and 75% from new course.
4 During School Year	Drop in level only*	"W"	Paper Form	Grade = 50% from original course and 50% from new course.

*Refer to the note above.

The dates for the windows for course changes will be indicated online prior to the start of the school year, in the LHS student handbook and noted on the schedule change form.

- There will be strict adherence to course change windows.
- During the Change Window 2, should a level change result in the loss of an elective course, a student will be permitted to replace their original elective selection based upon availability. No additional schedule changes will be made to accommodate that elective selection.
- Dropping or changing a course during the first, second or third schedule change window will result in no notation on the transcript.
- Dropping a course during the fourth schedule change window will result in a "W" on the transcript.
- A student may drop a full-year course prior to the end of the fourth schedule change window.
- A student may drop a second semester course prior to the end of the second semester, third schedule change window.
- When a dropped course is replaced by a study hall, attempts will be made to add a second semester course.

Grade Calculations When a Student Moves from an Honors or AP Course

During the second and third schedule change window, students who drop in level will have their grades adjusted one weighting equivalent for each level dropped. For example, if a student earns a "C-" in an AP course, the grade will be adjusted to a "C" in the Honors level. A "C-" in an AP course will be adjusted to a "C+" in the CP level. Examples of an averaging grade for a second window level change are as follows:

Grade Earned in AP Level	Adjusted Grade at the Honors Level	Grade Earned in the second half of Semester 1 at Honors Level	Grade Averaged to Determine the Semester grade	Final Semester Grade
C- (1.66)	C (2.0)	B+ (3.0)	$[C (2.0) + B (3.33)] / 2 = B- (2.67)$	B- (2.67)

Grade Earned in AP Level	Adjusted Grade at the CP Level	Grade Earned in the second half of Semester 1 at CP Level	Grade Averaged to Determine the Semester grade	Final Semester Grade
C- (1.66)	C+ (2.33)	B+ (3.33)	$[C (2.33) + B+ (3.33)] / 2 = B (2.83)$	B (2.83)

Please note:

Seniors with schedule changes after their transcripts have been sent to colleges are responsible for notifying the colleges of the change and for having an updated transcript mailed to each college.



Grade Point Average (GPA)

Students at Livingston High School are eligible to receive the following grades to be calculated in their Grade Point Average (GPA):

A	93-100
A-	90-92.99
B+	87-89.99
B	83-86.99
B-	80-82.99
C+	77-79.99
C	73-76.99
C-	70-72.99
D+	67-69.99
D	63-66.99
D-	60-62.99
F	59.99 and below

ISLO courses, pass/fail courses and summer school courses are not included in the calculation of a student's grade point average. In addition, the following grades do not figure in the GPA calculation:

I – Incomplete	N/C – No Credit (due to attendance)	P – Passing
S – Satisfactory	U - Unsatisfactory	W – Withdraw
Z – Exempt (final exam only)		

The grading system includes pluses and minuses to more accurately report a student's achievement (Note: the highest grade attainable is an A).

Weighted GPA

The Weighted Core Grade Point Average (GPA) is computed from: **One full-year course per core subject area** (English, Math, Science, Social Studies and World Language) **per year and all Advanced Placement (AP) Courses.**

- If a student takes more than one full-year course in any core subject area in an academic year, the course with the highest weighted grade equivalent will count towards the Weighted Core GPA.
- The Weighted Core GPA and Weighted All Course GPA are calculated by final course grades in both semester and full-year courses.

Transcripts are updated annually for each grade level and include GPAs for that year. Mid-year GPAs are calculated for juniors and seniors after the completion of the 5th and 7th semesters. A mid-year transcript is updated for seniors only for any college/universities or programs that require an updated mid-year transcript.

A GPA Interval Table derived from the Weighted Core GPA calculation for each senior class is provided to colleges on the [LHS School Profile](#). Colleges report that academic achievement, standardized test scores, and GPA are the best predictors of success in undergraduate study.

GPA Interval Table

The following is the weighted grade equivalent value for each level and grade attained:

GRADE	CP and General Courses	HONORS	AP
A	4.00	4.50	5.00
A-	3.66	4.16	4.66
B+	3.33	3.83	4.33
B	3.00	3.50	4.00
B-	2.66	3.16	3.66
C+	2.33	2.83	3.33
C	2.00	2.50	3.00
C-	1.66	2.16	2.66
D+	1.33	1.83	2.33
D	1.00	1.50	2.00
D-	0.66	1.16	1.66
F	0.00	0.00	0.00

Calculating Weighted GPA

To calculate the Weighted Core Grade Point Average (GPA), the weighted grade equivalent is multiplied by the number of credits for the course to obtain the total calculated quality points for each course. The total

calculated quality points are then added together and divided by the total credits attempted to obtain the Weighted Core GPA.

The following is an example of a sample schedule and the calculation of the Weighted Core GPA:

COURSE	FINAL GRADE	WEIGHTED GRADE EQUIVALENT	\times COURSE CREDITS	$=$ TOTAL CALCULATED QUALITY POINTS
Health/PE	A	-	-	-
English 3 CP	A	4.00	5	20.00
U.S. History I Honors	B	3.50	5	17.50
Geometry CP	B	3.00	5	15.00
Chemistry Honors	A	4.50	6	27.00
Spanish 3 CP	B	-	-	-
Chinese 1 CP	B+	3.33	5	16.65
Ceramics	A	-	-	-
		Totals	26	96.15
		Weighted Core GPA		3.69

The following is an example of a sample schedule and the calculation of the Weighted All Course GPA:

COURSE	FINAL GRADE	WEIGHTED GRADE EQUIVALENT	\times COURSE CREDITS	$=$ TOTAL CALCULATED QUALITY POINTS
Health/PE	A	4.00	5	20.00
English 3 CP	A	4.00	5	20.00
U.S. History I Honors	B	3.50	5	17.50
Geometry CP	B	3.00	5	15.00
Chemistry Honors	A	4.50	6	27.00
Spanish 3 CP	B	3.00	5	15.00
Chinese 1 CP	B+	3.33	5	16.65
Ceramics	A	4.00	5	20.00
		Totals	41	151.15
		Weighted All Course GPA		3.68

The Weighted Core GPA and Weighted All Course GPA are rounded to the 2nd decimal place and recorded as such on the student's transcript.

When calculating a cumulative GPA, all courses, final grades, the weighted grade equivalent and the credits need to be calculated in sum to determine the total. The LHS GPA is not calculated for each year and then divided by four years; it is a running calculation of the course credits and quality points.

Honors Courses at a Glance

	ENGLISH		SCIENCE
110	English 1 Honors	410	Biology Honors
110H	English 1 Humanities Honors	411	Environmental Science Honors
120	English 2 Honors	421	Chemistry Honors
120H	English 2 Humanities Honors	423	Intro to Research Methods Honors
130	English 3 Honors	434	Intermediate Research Methods Honors
130H	English 3 Humanities Honors		
140	English 4 Honors		WORLD LANGUAGES
		524	French 2 Honors
	SOCIAL STUDIES	525	Spanish 2 Honors
210	Modern World History Honors	530	Chinese 3 Honors
210H	Modern World History Humanities Honors	537	French 3 Honors
220	Modern European History Honors	540	Italian 3 Honors
230	US History 1 Honors	536	Spanish 3 Honors
230H	US History 1 Humanities Honors	545	Chinese 4 Honors
244	US History 2 Honors	547	French 4 Honors
244H	US 2 Humanities Honors	541	Italian 4 Honors
		546	Spanish 4 Honors
	MATHEMATICS		
310	Geometry Honors		
313	Algebra 1 Honors		
320	Algebra 2 Honors		
331	Pre-Calculus Honors		



AP Courses at a Glance

	ENGLISH		SCIENCE
131	AP English Language and Composition	450	AP Biology
141	AP English Literature and Composition	451	AP Chemistry
234	AP Seminar	454	AP Environmental Science
235	AP Research	455	AP Physics C – Electricity and Magnetism
		456	AP Physics C – Mechanics
	SOCIAL STUDIES	457	AP Physics 1
241	AP US History 2	458	AP Physics 2
249	AP Psychology	443	Advanced Research Methods
250	AP US Government & Politics	234	AP Seminar
251	AP European History	235	AP Research
252	AP Human Geography		
261	AP World History: Modern		ART
260	AP Comparative Government & Politics	850	AP Studio Art – Drawing/Design
234	AP Seminar	850A	AP Studio Art – 2D Design - Photography
235	AP Research	850C	AP Studio Art – 3D Design - Ceramics
262	AP African American Studies	850D	AP Studio Art – 2D Design- Digital Imaging
		851	AP Art History
	MATHEMATICS		
349	Multivariable Calculus		MUSIC
350	AP Calculus BC	950	AP Music Theory
351	AP Calculus AB		
352	AP Statistics		BUSINESS
353	AP Computer Science A	650	AP Economics
354	AP Precalculus	652	AP Microeconomics
355	AP Precalculus with Introduction to Calculus BC		
	TECHNOLOGY		
752	AP Computer Science Principles		



Dual Enrollment Courses at a Glance

Enrollment into any of the courses below enables a student to be “dually-enrolled” in the course at both Livingston High School and a college/university. Successful completion of a dual-enrollment course will grant the student college credit(s) and a college transcript in addition to earning credit on the LHS transcript. For more detailed information about the course descriptions and the name of the various credit-granting institutions, please refer to the information located under each of the department sections later in this document. Teachers assist students in the process of completing the required paperwork in order to obtain the college credit(s). Please consult with your school counselor regarding any questions about these courses as well as how to obtain the college transcript to provide in future post-secondary applications.

	BUSINESS		TECHNOLOGY
623	Computer Applications	729	Technology & Design 2
632	Accounting 2	745	Engineering & Product Design 2
636	Entrepreneurship		
634	Marketing		SCIENCE
625	Microsoft Office Specialist	448	Dynamics of Healthcare in Society
640	Virtual Enterprises International	426	Anatomy & Physiology 1
		427	Anatomy & Physiology 2
	SOCIAL STUDIES	428	Natural Resources & Ecology
245	Holocaust & Genocide Studies		



Courses of Study



Business Department

Livingston High School's Business Education courses concentrate on providing students with a well rounded business program with diverse course options. Our department teaches skills and content knowledge applicable for students both in and out of the business world. Students have the opportunity to earn college credit through Advanced Placement and Dual Enrollment programs (at Fairleigh Dickinson University or Syracuse University), earn industry certifications for their resume, and partake in extracurricular opportunities through hands-on courses. The courses offered by the LHS Business department satisfy the New Jersey Department of Education 21st Century Life and Career skills graduation requirement. While these are the requirements as per the NJDOE for graduation, please consult with your school counselor regarding your post-secondary program goals and specific requirements.

The following courses fulfill the Financial, Economic, Business and Entrepreneurial Literacy graduation requirement:

- Personal Financial Literacy (626)
- Personal Financial Literacy Hybrid (626S)
- Introduction to Business (613)
- Any courses in the Career Internship Program (CIP)

Please visit the LHS Business Department website for additional information: [click here](#).

Business Department Full Year Courses

INTRODUCTION TO BUSINESS (613) Prerequisite: None.	5 Credits Full Year Grades 9-10
Introduction to Business is designed to provide students with a background in all areas of business including marketing, management, finance, economics, and business ethics. Students will write a business plan to launch a new business idea. Personal financial literacy standards covered include banking, budgeting, saving and investing, careers, and credit. Introduction to Business is a foundation for success in all other business courses and fulfills the Personal Financial Literacy state-mandated graduation requirement.	
COMPUTER APPLICATIONS (623) Prerequisite: None.	5 Credits Full Year Grades 9-12
Computer Applications (Microsoft Certification IC3 GS6) is a hands-on computing and technology-driven class designed to deepen students' understanding of practical computer use for the 21st century. The focus of the course is to prepare students for the Internet and Computing Core/Global Standards (IC3 GS6) Microsoft Certification exam series. The IC3 GS6 program ensures working knowledge and skill level required for use of computer hardware, software, networks, cyber security, and the Internet and is an internationally recognized standard for digital literacy and reflects the most relevant skills needed in today's academic and business environments. Students that complete this course obtain skills beyond the average computer user.	

LHS is a Microsoft Authorized Testing Center for the IC3 GS6 certification program. **As a dual enrollment course, students who earn a minimum of “C” in this course are eligible to receive three (3) credits from Fairleigh Dickinson University.**

CAREER EXPLORATION (771) Prerequisite: This course is assigned at the recommendation of the Child Study Team and is a Resource Center Level course.	5 Credits Full Year Grades 9-10
<p>This course, a dedicated transition program, prepares students to negotiate between school, post-secondary education, employment, adult living, and living within their community. This course is the first step in formal career exploration within which a special educator provides learning opportunities to expand students’ awareness of their strengths, interests, and preferences in relation to post-secondary transition. Students will have opportunities to explore careers through hands-on experiences within the classroom and the school community.</p>	

CAREER INTERNSHIP PROGRAM 1 (CIP) (772) Prerequisite: This course is assigned at the recommendation of the Child Study Team and is a Resource Center Level course.	5 or 10 Credits Full Year Grades 10-11
<p>This is a dedicated transition program that prepares students to negotiate between school, post-secondary education, employment, adult living, and living within their community. Students enrolled in this course may do so for one or two periods within the school day. Students continue to evaluate their options for post-secondary transition through structured completion of: career and interest inventories, hands-on work in the CIP lab sites including: catering/cooking, retail sales, office occupations, imprinting, engraving, computer graphics, horticulture; and community experiences to explore college and career options. In addition, students will have opportunities to job-sample within the school community in preparation for internships and employment within their local community.</p>	

CAREER INTERNSHIP PROGRAM 2 (CIP) (773) Prerequisite: CIP 1 or assigned at the recommendation of the Child Study Team and is a Resource Center Level course.	5 or 10 Credits Full Year Grades 11-12
<p>This is a dedicated program that prepares students to negotiate between school, post-secondary education, employment, adult living, and living within their community. The Career Internship Program 2 is designed to assist students in preparing for the challenges they will face as individuals, consumers, employees and family members. The program includes opportunities to integrate academic skills with problem solving strategies while providing hands-on applications of these. The overall focus of the program is to facilitate transition into adult life. Students enrolled in this course may do so one or more periods within their school day. Teachers utilize a multi-disciplinary approach to prepare students for their post-secondary transition with the seven areas of transition as the structure by which students will achieve success. These include: exploration of college and educational options, adult living, daily living, related services, community experiences, employment, and functional vocational. Opportunities to continue work in the CIP lab, the school community, and the local community are provided to assist students in learning the skills necessary to navigate the work and/or school environment. This course provides daily opportunities for students to develop job appropriate behaviors while interacting with co-workers and supervisors.</p>	

CAREER INTERNSHIP PROGRAM 3 (CIP) (776) Prerequisite: CIP 2 or assigned at the recommendation of the Child Study Team and is a Resource Center Level course.	5 or 10 Credits Full Year Grades 11-12
<p>This is a dedicated program that prepares students to negotiate between school, post-secondary education, employment, adult living, and living within their community. The Career Internship Program 3 is designed to assist students in preparing for the challenges they will face as individuals, consumers, employees and family members. The program includes opportunities to integrate academic skills with problem solving strategies while providing hands-on applications of these. The overall focus of the program is to facilitate transition into adult life. Students enrolled in this course may do so one or more periods within their school day. Teachers utilize a multi-disciplinary approach to prepare students for their post-secondary transition with the seven areas of transition as the structure by which students will achieve success. These include: exploration of college and educational options, adult living, daily living, related services, community experiences, employment, and functional vocational. Opportunities to continue work in the CIP lab, the school community, and the local community are provided to assist students in learning the skills necessary to navigate the work and/or school environment. This course provides daily opportunities for students to develop job appropriate behaviors while interacting with co-workers and supervisors.</p>	

CAREER INTERNSHIP PROGRAM - COMMUNITY (006) Prerequisite: This course is assigned at the recommendation of the Child Study Team and is a Resource Center Level course.	5 or 10 Credits Full Year Grades 9-12
<p>This course prepares students for independent living and successful contribution to their home and community. The classroom, designed to teach daily living skills, has an apartment with a fully functional kitchen, laundry facility, closets, a living room, in addition to an academic space for learning. The course is linked to functional academics, which are taught through direct instruction, then applied and practiced in the community. Social skills and daily living skills are embedded into all instruction. Experiences include, but are not limited to shopping at local stores, budgeting and banking, working in a real business, as well as leisure and recreational activities. Students first begin practical application by having jobs throughout the school building as an opportunity to learn and master skills. Students then practice acquired skills in the community, including use of public transportation in order to access all that Livingston and the surrounding communities have to offer. Through career exploration and exposure to various employment opportunities, students are encouraged to find their own path.</p>	

ACCOUNTING 1 (621) Prerequisite: None.	5 Credits Full Year Grades 10-12
<p>Accounting 1 is designed to provide students with an in-depth understanding of financial accounting concepts and procedures that will enable them to complete manual and computerized accounting applications. This course uses a college textbook and includes topics such as the accounting cycle, cash transactions, inventory control, depreciable assets, accounting for small businesses and uncollectible accounts. Students also develop an understanding of the financial activities of service and merchandising businesses, as well as competencies in managing personal affairs and participate in a stock market simulation.</p>	

ACCOUNTING 2 (632) Prerequisite: Successful completion of Accounting 1.	5 Credits Full Year Grades 11-12
Accounting 2 continues with the study of financial accounting and introduces managerial accounting. This course uses a college textbook and includes topics such as the analysis and interpretation of financial statements, the treatment of tangible and intangible assets, calculation of payroll, an in-depth study of corporate accounting and an overview of cost systems. Analysis of actual corporate records and investigation of stocks and bonds as investments are explored. Students will complete an accounting simulation and create their own merchandising company in Quickbooks Accounting Software. As a dual enrollment course, students who earn a minimum grade of “C” in Accounting 2 are eligible to receive three (3) credits from Fairleigh Dickinson University.	

COOPERATIVE WORK EXPERIENCE (CO-OP) (642) Prerequisite: None.	15 Credits Full Year Grades 11-12
Cooperative Work Experience (Co-op) is a structured course/program that combines classroom-based learning with practical work experience so students can earn while they learn. The co-op program combines a required minimum of 540 hours of on-the-job, supervised work experience with a related theory class that meets in school for 1 period. Students can schedule up to 2 additional afternoon periods so they can leave the campus and engage in their work/ job. An evaluation is conducted four times during the year, by the training site supervisor and the teacher-coordinator to ensure that the internship is a meaningful learning experience. Students must be able to drive (or arrange transportation) to their worksite.	

BUSINESS LAW 1 (635) Prerequisite: None.	5 Credits Full Year Grades 10-12
Business Law 1 is designed to provide students with a comprehensive approach to the study of law and how it relates to business and legal issues. Topics include the origin and development of our laws; an overview of the structure of various legal systems; laws pertaining to minors, especially legal relationships with the police; and an introduction to civil and criminal procedures. In-depth studies with lawyer discussions involving torts, negligence, criminal justice, contracts, property and negotiable instruments also are included. Two classroom mock trials are held during the year with one mock trial being held in a courtroom. Students are encouraged to participate in the NJ Bar Association Mock Trial competition. This course is of special benefit to those planning to major in business administration or law in college.	

ENTREPRENEURSHIP (636) Prerequisite: None.	5 Credits Full Year Grades 11-12
Entrepreneurship is designed to provide students with a solid foundation and understanding of the vital role played by entrepreneurs and entrepreneurship in the 21st century global economy. During this course, students will assess, explore, critique, and celebrate the phenomenon of entrepreneurship. It is designed to help students gain an understanding of the business principles	

necessary to start and operate a business. Students will identify and assess common traits and skills found in entrepreneurs, explore business opportunities, and compare the risks and rewards of owning a business. The primary focus of the course is to help students develop the skills needed to effectively organize, create, and manage their own business. Each student will develop a written business plan for a business of their choice. **As a dual enrollment course, students have the option to earn credit from Syracuse University for successful completion of the class.**

MARKETING (634)
Prerequisite: None.

5 Credits
Full Year
Grades 10-12

This course is for those interested in pursuing a career in marketing, advertising, market research, sales or general business management. It is designed to develop an understanding of the concepts and strategies needed to create an effective marketing effort for a product or service. In addition to the development of a marketing plan, students will plan, create and produce advertising campaigns which will include all major media including television, print and digital/social channels. Sports and entertainment marketing will also be examined over the course of the year. **As a dual enrollment course, students who earn a minimum grade of “C” in Marketing are eligible to receive three (3) college credits from Fairleigh Dickinson University.**

MICROSOFT OFFICE SPECIALIST (625)
Prerequisite: None

5 Credits
Full Year
Grades 10-12

Students in this course receive in-depth, advanced training in the Microsoft Office Suite of programs; Access, Excel, PowerPoint, and Word. As a result of this training, students will be prepared to take the Microsoft Office Specialist Certification (MOS) exams in any of the programs. MOS certification is the globally recognized standard for validating expertise with the Microsoft Office Suite of programs. LHS is a Microsoft authorized testing center for the MOS program. **As a dual enrollment course, students who earn a minimum grade of “C” in Microsoft Office Specialist are eligible to receive three (3) college credits from Fairleigh Dickinson University.**

VIRTUAL ENTERPRISES INTERNATIONAL (641)
Prerequisite: Successful completion of any two business courses except for Personal Financial Literacy. **Completion of application.**
Enrollment in this course is based on acceptance in this program.

5 Credits
Full Year
Grades 11-12

Virtual Enterprises International is a capstone course designed to provide students with the skills and knowledge required to succeed in the global business world. Students are exposed to the various departments found within corporate culture by participating in a virtual business, the Virtual Enterprises International (VEI) simulation, with other students around the globe. Emphasis is placed on using current business software, communications, and the Internet for business transactions. As a culmination of this year-long course, students will analyze, interpret, and present an annual business report which is a reflection of the year’s activities and used as a tool for future projection and planning. In addition, they will leave the course with an individually created portfolio that has been used to assess their performance and will convey their roles, abilities, and skills they have gained through taking the course.

As a dual enrollment course, students who earn a minimum grade of “C” in Virtual Enterprises International are eligible to receive three (3) college credits from Fairleigh Dickinson University. Students must complete an application to apply to a specific department where they will focus and specialize. Areas of specialty include: Finance, Human Resources, Information Technology, and Marketing/Sales.

AP ECONOMICS (650)

Prerequisite: None.

**5 Credits
Full Year
Grades 11-12**

The Advanced Placement Economics program is designed for students who possess special interests in the field of economics and who plan to seek advanced standing upon admission to college. The course covers two distinct sections: microeconomics and macroeconomics. Each section is intended for qualified students who wish to complete a secondary school equivalent to a one-semester college introductory course in micro or macroeconomics. Students will be prepared to take both AP Economic Examinations: Microeconomics and Macroeconomics. It is expected that all students take one, if not both, of the AP Economics exams in May.

AP MICROECONOMICS (652)

Prerequisite: None.

**5 Credits
Full Year
Grades 11-12**

AP Microeconomics is a college-level course that introduces students to the principles of economics that apply to the functions of individual economic decision-makers. The program is designed for students who possess special interests in the field of economics and who plan to seek advanced standing upon admission to college. Students cultivate their understanding of the principles that apply to the functions of individual economic decision-makers by using principles and models to describe economic situations. This course only covers the content needed to prepare students for the AP Microeconomics examination. It is offered to provide students choice for an academic experience that best fits their personal situation.

In 2024-25, we plan to offer AP Macroeconomics alongside AP Economics so that students can take AP Microeconomics and AP Macroeconomics in alternating years.

Business Department Semester Courses

ECONOMICS (633)

Prerequisite: None.

**2.5 Credits
Semester
Grades 10-12**

Economics is a course designed to build economic literacy and to illustrate economic cause and effect. Students will focus on developing knowledge of economic theory and principles, the American economy, the economic influence of government policies and procedures, and the skills needed to apply this knowledge to their own lives. Students will apply this knowledge to specific examples in the form of class activities and simulations. Presentation skills are promoted through collaborative activities in the form of group work. This course does not fulfill the Personal Financial Literacy graduation requirement.

INVESTING (614) Prerequisite: None.	2.5 Credits Semester Grades 10-12
Investing is a study of the major types of investment securities and markets in which trades can be made. The course will address the mechanics of making an investment, including basic analytical and valuation techniques for a stock, along with a survey of investing resources, terms, and descriptions. Upon completion of this course, students will be able to define the basic principles for creating a portfolio through understanding various types of investment vehicles. Students will apply this understanding to a global stock market competition and conduct deeper analysis of stocks, bonds, cryptocurrencies and real estate.	

PERSONAL FINANCIAL LITERACY (626) Prerequisite: None.	2.5 Credits Semester Grades 11-12
<p>Personal Financial Literacy is a state-mandated graduation requirement for all students. This course focuses on the five separate strands of personal finance which include income and careers; money management, credit and debt management, planning, saving, and investing; becoming critical consumers; citizen financial responsibility; and risk management and insurance. This course is designed to assist students in recognizing their financial responsibilities today and those they will encounter in the future. Topics include developing knowledge of banking, credit, stocks, bonds, mutual funds, and real estate. Real-life, real-time assignments and investment challenges are examples of projects designed for this course.</p> <p>The following courses fulfill the NJ graduation requirement for Personal Financial Literacy:</p> <p>Personal Financial Literacy (626), Personal Financial Literacy Hybrid (626S), Introduction to Business (613) and Career Internship Program (CIP) (772)</p>	

PERSONAL FINANCIAL LITERACY HYBRID (626S) Prerequisite: None.	2.5 Credits Semester Grades 11-12
<p>This online, hybrid course provides students with an opportunity to experience an independent educational environment where learning and assessment is completed in an online, self-paced classroom with the guidance of an instructor as needed. Students who select this course over the traditional Personal Financial Literacy option should be self-motivated, with strong time management skills. Students enrolled are required to be physically present at all class meetings. The course includes elements of student choice over time, place, or pace in their learning. This option will cover the same material as the traditional Personal Financial Literacy course and satisfies the state graduation requirement for financial, economic, business, and entrepreneurial literacy.</p> <p>This course focuses on the five separate strands of personal finance which include income and careers; money management, credit and debt management, planning, saving, and investing; becoming critical consumers; citizen financial responsibility; and risk management and insurance. This course is designed to assist students in recognizing their financial responsibilities today and those they will encounter in the future. Topics include developing knowledge of banking, credit, stocks,</p>	

bonds, mutual funds, and real estate. Real-life, real-time assignments and investment challenges are examples of projects designed for this course.

The following courses fulfill the NJ graduation requirement for Personal Financial Literacy:

Personal Financial Literacy (626), Personal Financial Literacy Hybrid (626S), Introduction to Business (613) and Career Internship Program (CIP) (772)

SENIOR MENTORS (255)

Prerequisite: None.

2.5 Credits

Semester

Grade 12

Senior Mentors is a new semester course that will provide 12th grade students an opportunity to develop their skills as collaborative leaders through training that will include but not be limited to group facilitation skills, understanding one's role as a leader, communicating with a co-facilitator, goal-setting and attainment, motivation and engagement, building trust and respect, active listening, time management, and understanding various leadership styles and their effectiveness in myriad situations. Students will then be provided the opportunity to put their learning into practice by mentoring 9th grade students at LHS with the necessary support and guidance as they transition to LHS.

SPORTS AND ENTERTAINMENT MARKETING (615)

Prerequisite: Successful completion of Marketing.

2.5 Credits

Semester

Grades 11-12

Sports and Entertainment Marketing is a one semester course designed to provide students with an understanding of marketing concepts, foundations, and functions as they relate to career opportunities in the growing area of sports and entertainment. Instruction will focus on public relations and publicity, event planning and marketing, sponsorship, venue design, concessions, risk management, product planning, licensing, ticket sales, and distribution

SOCIAL MEDIA MARKETING (616)

Prerequisite: Successful completion of Marketing.

2.5 Credits

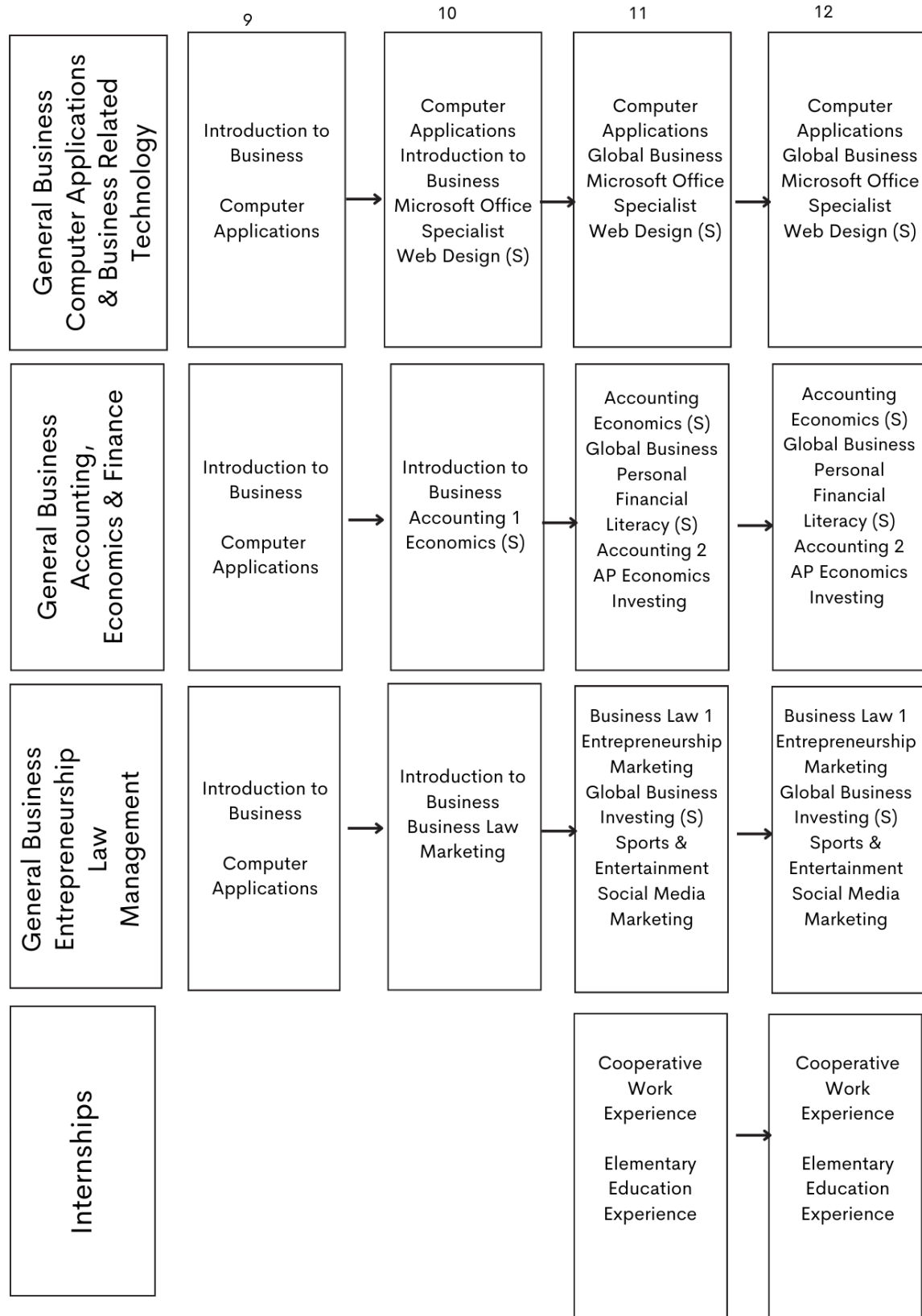
Semester

Grades 11-12

Social Media Marketing is a one semester course designed to provide students with an understanding of what social media is, the various channels through which it operates, and its role in a marketing strategy. Students will draw upon knowledge learned in Marketing to develop and create marketing plans that include ideas, messages, products, and behaviors across social networks. Students will gain the knowledge and skills to effectively use social media to market a business and/or product.

WEB DESIGN (627) Prerequisite: None.	2.5 Credits Semester Grades 10-12
<p>Students in this half-year course will be able to plan and produce websites focused on the marketing and sales of a product or service, or develop an Electronic Career Portfolio. Students will follow the website development process of providing a written website purpose statement, identifying a target audience, selecting the website structure, and determining content and design. Students will learn how to create a website in various platforms such as Google Sites, Wix and WordPress, while learning hypertext markup language and CSS.</p>	

Course Sequence for Business By Concentration/Areas of Interest*



(S) Denotes semester course
A student may change their concentration at any time.

English Department

The English Department believes that language is the foundation of all learning and is essential to the acquisition of knowledge in all content areas. Therefore, our mission is to enable students to use language precisely — reading, writing, listening and speaking — in an integrated way. We aim to instill in our students a lifelong appreciation and love for language as readers, writers, and effective communicators in accordance with the NJSLS.

The department is committed to providing a rich language curriculum that enables students to explore, take risks, and create. We are responsible for developing varied activities which foster sensitivity and respect for others, celebrate diversity, and encourage pride in accomplishment.

At each level, courses are dedicated to presenting the knowledge necessary to meet the ever-changing needs of our complex world. Our students must become problem solvers and decision makers. Our curriculum emphasizes the many facets of information processing and provides opportunities for students to use and apply these skills. We encourage students to take responsibility for their own learning and assessment. The development and refinement of language skills will enable students to become productive thinkers who consider ideas from many perspectives, make connections, and transfer and apply knowledge to new situations.

Since the primary goals of an English Language Arts curriculum are recursive in nature, all four units for each grade level have been vertically articulated. In other words, students in each grade level focus on the same units of study; however, each year highlights a specific set of skills and understandings, which scaffold in sophistication. The four thematic “threaded” strands that course through all four years are: Influences on Perception, The Human Condition, Ideal Relationships, and The Emotional Response.

All four units begin with essential questions that are designed to guide students’ thinking. These questions recur throughout the introductions to each unit, at the end of each unit, and before and after the study of each literary selection. Students will have opportunities to revisit these questions in light of new information about a literary period or a new reading or writing experience. All summative assessments will be designed with student understanding and appreciation for the complexity of each of these essential questions.

It should be noted that while each unit in the curriculum is designed with specific targeted areas of attention and skill sets in mind, this is not to say that teachers and students will be limited to *only* these foci. Since the teaching and learning of English Language Arts is a recursive process, many of these understandings and skills will be revisited, reinforced, and strengthened throughout other times in the school year.

There can be courses where students may have proficiency in the content from prior or out-of-school programs or experiences. If a student seeks to enroll in a course and has not taken the required prerequisite at Livingston High School, the student must demonstrate his/her comparable proficiencies to the department supervisor. Students may not enter into a course without successful completion of a required prerequisite or department supervisor approval. Upon supervisor approval, students will be notified if they are permitted to enter into the requested course.

Please visit the LHS English Department website for additional information: [click here](#).

English Department Core Courses

ENGLISH FOR SUCCESS 1 (116) Prerequisite: Recommendation by ESL teacher and School Counselor.	5 Credits Full Year Grades 9-12
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This is a skill-building course that serves as a bridge between the newly exited and mainstream English Language Learners. The purpose of this course is (1) to develop skills in communicating and understanding nuances of the English language; (2) to foster the understanding of American culture through literature and media; and (3) to highlight the importance and contribution of students' diverse backgrounds to the school and American community. This course can be a substitute for a standard English class for one year.

GENERAL ENGLISH 1 (171) Prerequisite: This course is assigned at the recommendation of the Child Study Team and is a Resource Center Level course.	5 Credits Full Year Grades 9
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General English 1 is a course designed to meet the goals and objectives identified in each student's IEP. Instruction is specialized to promote progress toward the acquisition of curricular standards. There are course proficiencies appropriate to each student's performance level. Assignments include reading novels, a short story collection, and an anthology. Skills required for State mandated assessments for graduation and real world application skills are also reinforced throughout this course.

ENGLISH 1 CP (112) Prerequisite: None.	5 Credits Full Year Grade 9
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Completion of a summer reading assignment is required for this course.

This required English 1 course for ninth graders is organized around four basic essential questions that serve as an introduction to the thematic sequence of the high school English curriculum. They are as follows: How do our age and experience affect our thinking and decision making? To what extent can you really understand someone? What makes a good friend? What makes something tragic? Additionally, each marking period/unit will spotlight a different writing genre (narrative, expository/research, persuasive, and literary analysis), a different literary element (character, setting, point of view, and theme), as well as a different oral speaking project. Each of these skill sets will serve as the foundation for all subsequent grade levels.

ENGLISH 1 HUMANITIES CP (112H) Prerequisite: None.	5 Credits Paired with Modern World History Humanities CP Full Year Grade 9
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Must be taken in conjunction with English 1 Humanities.

This interdisciplinary course will link four subjects (History, English, Art and Music) to explore the historical, literary, and cultural influences that have shaped the United States. Students will have a dedicated period for both English and History, and will have an Art and Music teacher assigned to both sections for supplemental lessons. Students will be immersed in a variety of texts, including literature, non-fiction, electronic media, film, music, and fine arts in order to create their own original print and non-print works. Students will have opportunities for experiential learning through field trips, projects, and specialized art and music lessons that highlight the humanities curriculum. These courses are designed to synthesize concepts in Modern World History, the acquisition of literacy skills, and an appreciation and application of the Fine and Performing Arts as a way of developing a cohesive understanding of the human experience from the Renaissance to the present. Selection of 9th grade Humanities will require two dedicated class periods and will fulfill the Social Studies and English standards required for graduation by the state of New Jersey.

ENGLISH 1 HONORS (110)

Prerequisite: None.

5 Credits

Full Year

Grade 9

Completion of a summer reading assignment is required for this course.

This required English 1 course for ninth graders is organized around four basic essential questions that serve as an introduction to the thematic sequence of the high school English curriculum. They are as follows: How do our age and experience affect our thinking and decision making? To what extent can you really understand someone? What makes a good friend? What makes something tragic? Additionally, each marking period/unit will spotlight a different writing genre (narrative, expository/research, persuasive, and literary analysis), a different literary element (character, setting, point of view, and theme), as well as a different oral speaking project. Each of these skill sets will serve as the foundation for all subsequent grade levels. At the honors level, greater depth and breadth of content will be covered at an accelerated pace. Students will read more complex texts, assignments are more intensive and complex in that they promote expansion of concepts, creative problem solving, and critical thinking. Interest in literature and learning, analytical insight in class participation, analytical insight in written assignments and disciplined work habits are key criteria for success in the Honors level.

ENGLISH 1 HUMANITIES HONORS (110H)

Prerequisite: None.

5 Credits

Paired with Modern

World History

Humanities H

Full Year

Grade 9

Must be taken in conjunction with Modern World History Humanities.

This interdisciplinary course will link four subjects (History, English, Art and Music) to explore the historical, literary and cultural influences that have shaped the United States. Students will have a dedicated period for both English and History, and will have an Art and Music teacher assigned to both sections for supplemental lessons. Students will be immersed in a variety of texts, including literature, non-fiction, electronic media, film, music, and fine arts in order to create their own original print and non-print works. Students will have opportunities for experiential learning through field trips, projects, and specialized art and music lessons that highlight the humanities curriculum. These courses are designed to synthesize concepts in Modern World History, the acquisition of literacy skills,

and an appreciation and application of the Fine and Performing Arts as a way of developing a cohesive understanding of the human experience from the Renaissance to the present. Selection of 9th grade Humanities will require two dedicated class periods and will fulfill the Social Studies and English standards required for graduation by the state of New Jersey. Honors will be distinguished by a variety of additional independent readings, informative class discussions, and research-based assignments to highlight the relationship between course themes and contemporary issues.

GENERAL ENGLISH 2 (172)

Prerequisite: This course is assigned at the recommendation of the Child Study Team and is a Resource Center Level course.

5 Credits
Full Year
Grade 10

General English 2 is a course designed to meet the goals and objectives identified in each student's IEP. Instruction is specialized to promote progress toward the acquisition of curricular standards. There are course proficiencies appropriate to each student's performance level. Assignments include reading novels, a short story collection, and an anthology. Skills required for State mandated assessments for graduation and real world application skills are also reinforced throughout this course.

ENGLISH 2 CP (122)

Prerequisite: Successful completion of English 1.

5 Credits
Full Year
Grade 10

Completion of a summer reading assignment is required for this course.

English 2 will investigate four new questions that build upon themes introduced in English 9. These questions (How do our social class and family affect our thinking? To what extent do individuals control their own lives? What makes a hero? What makes something frightening?) will be used as a springboard to help strengthen students' reading and writing skills and provide additional preparation for State mandated assessments for graduation as well as the SATs.

ENGLISH 2 HUMANITIES CP (122H)

Prerequisite: Successful completion of English 1.

5 Credits
Paired with US History 1
Humanities CP
Full Year
Grade 10

Must be taken in conjunction with US History 2 Humanities.

This interdisciplinary course will link four subjects (History, English, Art and Music) to explore the historical, literary, and cultural influences that have shaped the United States. Students will have a dedicated period for both English and History, and will have an Art and Music teacher assigned to both sections for supplemental lessons. In this humanities course students will examine the economic, literary, political, and intellectual influences that helped develop a unique American identity from Pre-Columbian societies and continuing through the beginning of the 20th century. Students will be immersed in a variety of texts, including literature, non-fiction, electronic media, film, music, and fine arts in order to create their own original print and non-print works. Students will have opportunities for experiential learning through field trips, projects, and specialized art and music lessons that highlight the humanities curriculum. These courses are designed to synthesize concepts in Modern American History, the acquisition of literacy skills, and an appreciation and application of the Fine and

Performing Arts as a way of developing a cohesive understanding of the human experience from the turn of the 20th century to the present. Selection of 10th grade Humanities will require two dedicated class periods and will fulfill the English and Social Studies standards required for graduation by the state of New Jersey.

ENGLISH 2 HONORS (120)

Prerequisite: Successful completion of English 1.

5 Credits

Full Year

Grade 10

Completion of a summer reading assignment is required for this course.

English 2 will investigate four new questions that build upon themes introduced in English 9. These questions (How do our social class and family affect our thinking? To what extent do individuals control their own lives? What makes a hero? and What makes something frightening?) will be used as a springboard to help strengthen students' reading and writing skills and provide additional preparation for State mandated assessments for graduation as well as the SATs. At the honors level, greater depth and breadth of content will be covered at an accelerated pace. Students will read more complex texts, assignments are more intensive and complex in that they promote expansion of concepts, creative problem solving, and critical thinking. Interest in literature and learning, analytical insight in class participation, analytical insight in written assignments and disciplined work habits are key criteria for success in the Honors level.

ENGLISH 2 HUMANITIES HONORS (120H)

Prerequisite: Successful completion of English 1.

5 Credits

Paired with US History 1

Humanities H

Full Year

Grade 10

Must be taken in conjunction with US History 1 Humanities.

This interdisciplinary course will link four subjects (History, English, Art and Music) to explore the historical, literary and cultural influences that have shaped the United States. Students will have a dedicated period for both English and History and will have an Art and Music teacher assigned to both sections for supplemental lessons. In this humanities course students will examine the economic, literary, political, and intellectual influences that helped develop a unique American identity from Pre-Columbian societies through the beginning of the 20th century. Students will be immersed in a variety of texts, including literature, non-fiction, electronic media, film, music, and fine arts in order to create their own original print and non-print works. Students will have opportunities for experiential learning through field trips, projects, and specialized art and music lessons that highlight the humanities curriculum. These courses are designed to synthesize concepts in Modern American History, the acquisition of literacy skills, and an appreciation and application of the Fine and Performing Arts as a way of developing a cohesive understanding of the human experience from the turn of the 20th century to the present. Selection of 10th grade Humanities will require two dedicated class periods and will fulfill the English and Social Studies standards required for graduation by the state of New Jersey. Honors will be distinguished by a variety of additional independent readings, informative class discussions, and research-based assignments to highlight the relationship between course themes and contemporary issues.

GENERAL ENGLISH 3 (173) Prerequisite: This course is assigned at the recommendation of the Child Study Team and is a Resource Center Level course.	5 Credits Full Year Grade 11
<p>General English 3 is a course designed to meet the goals and objectives identified in each student's IEP. Instruction is specialized to promote progress toward the acquisition of curricular standards. There are course proficiencies appropriate to each student's performance level. Assignments include reading novels, a short story collection, and an anthology. Skills required for State mandated assessments for graduation and real world application skills are also reinforced throughout this course.</p>	

ENGLISH 3 CP (132) Prerequisite: Successful completion of English 2.	5 Credits Full Year Grade 11
<p>Completion of a summer reading assignment is required for this course.</p> <p>While English 3 is designed for students to build upon question strands that emerge from those examined in grades 9 and 10, this junior-year course will also emphasize, but not be limited to, the study of a variety of American literary works. Units are also centered upon questions that represent some of our country's major concerns over the past two hundred years. These include: How do time and place affect our thinking? Is "liberty and justice" attainable for all? What makes a good citizen? What makes something beautiful? Each thematic unit will contain literature in each genre – novel, drama, poetry, non-fiction, and short story – spanning the history of our nation. As with the preceding grade levels, each unit will also be accompanied with practice in a particular writing genre, study of a specific literary element, and opportunities to develop and perform various oral speaking tasks.</p>	

ENGLISH 3 HUMANITIES CP (132H) Prerequisite: Successful completion of English 2.	5 Credits Paired with US History 2 Humanities CP Full Year Grade 11
<p>Must be taken in conjunction with US History 2 Humanities.</p> <p>This interdisciplinary course will link four subjects (History, English, Art and Music) to explore the historical, literary and cultural influences that have shaped the United States. Students will have a dedicated period for both English and History, and will have an Art and Music teacher assigned to both sections for supplemental lessons. Students will be immersed in a variety of texts, including literature, non-fiction, electronic media, film, music, and fine arts in order to create their own original print and non-print works. Students will have opportunities for experiential learning through field trips, projects, and specialized art and music lessons that highlight the humanities curriculum. These courses are designed to synthesize concepts in Modern American History, the acquisition of literacy skills, and an appreciation and application of the Fine and Performing Arts as a way of developing a cohesive understanding of the human experience from the turn of the 20th century to the present. Art and Music teachers will supplement instruction and enrich content. Selection of 11th grade Humanities will require two dedicated class periods and will fulfill the Social Studies and English standards required for graduation by the state of New Jersey.</p>	

ENGLISH 3 HONORS (130) Prerequisite: Successful completion of English 2.	5 Credits Full Year Grade 11
<p>Completion of a summer reading assignment is required for this course.</p> <p>While English 3 is designed for students to build upon question strands that emerge from those examined in grades 9 and 10, this junior-year course will also emphasize, but not be limited to, the study of a variety of American literary works. Units are also centered upon questions that represent some of our country's major concerns over the past two hundred years. These include: How do time and place affect our thinking? Is "liberty and justice" attainable for all? What makes a good citizen? What makes something beautiful? Each thematic unit will contain literature in each genre – novel, drama, poetry, non-fiction, and short story – spanning the history of our nation. As with the preceding grade levels, each unit will also be accompanied with practice in a particular writing genre, study of a specific literary element, and opportunities to develop and perform various oral speaking tasks. At the honors level, greater depth and breadth of content will be covered at an accelerated pace. Students will read more complex texts, assignments are more intensive and complex in that they promote expansion of concepts, creative problem solving, and critical thinking. Interest in literature and learning, analytical insight in class participation, analytical insight in written assignments and disciplined work habits are key criteria for success in the Honors level.</p>	

ENGLISH 3 HUMANITIES H (130) Prerequisite: Successful completion of English 2.	5 Credits Paired with US History 2 Humanities H Full Year Grade 11
<p>Must be taken in conjunction with US History 2 Humanities.</p> <p>This interdisciplinary course will link four subjects (History, English, Art and Music) to explore the historical, literary and cultural influences that have shaped the United States. Students will have a dedicated period for both English and History, and will have an Art and Music teacher assigned to both sections for supplemental lessons. Students will be immersed in a variety of texts, including literature, non-fiction, electronic media, film, music, and fine arts in order to create their own original print and non-print works. Students will have opportunities for experiential learning through field trips, projects, and specialized art and music lessons that highlight the humanities curriculum. These courses are designed to synthesize concepts in Modern American History, the acquisition of literacy skills, and an appreciation and application of the Fine and Performing Arts as a way of developing a cohesive understanding of the human experience from the turn of the 20th century to the present. Art and Music teachers will supplement instruction and enrich content. Selection of 11th grade Humanities will require two dedicated class periods and will fulfill the Social Studies and English standards required for graduation by the state of New Jersey. Honors will be distinguished by a variety of additional independent readings, informative class discussions, and research-based assignments to highlight the relationship between course themes and contemporary issues.</p>	

AP ENGLISH LANGUAGE AND COMPOSITION (131) Prerequisite: Successful completion of English 2.	5 Credits Full Year Grade 11
Completion of a summer reading and writing assignment is required for this course.	

This rigorous course is open to junior students and is recommended on the basis of ninth and tenth grade work of superior quality, teacher evaluation and performance on an in-school writing task. The main emphasis of the course is written literary analysis, frequent in class discussion, techniques of research, and a focus on the works of American authors. Students will examine a writer's purpose and the use of rhetorical devices, including tone, diction, audience, organization, and style. In response to a variety of fiction and non-fiction texts, they will write a variety of expository, analytical, and argumentative papers. It is expected that all students take the AP English Language and Composition exam in May.

GENERAL ENGLISH 4 (174) Prerequisite: This course is assigned at the recommendation of the Child Study Team and is a Resource Center Level course.	5 Credits Full Year Grade 12
<p>General English 4 is a course designed to meet the goals and objectives identified in each student's IEP. Individual remediation is part of each lesson. Instruction is specialized to promote progress toward the acquisition of curricular standards. There are course proficiencies appropriate to each student's performance level. Assignments include reading novels, a short story collection, and an anthology. Skills required for State mandated assessments for graduation and real world application skills are also reinforced throughout this course.</p>	

ENGLISH 4 CP (142) Prerequisite: Successful completion of English 3.	5 Credits Full Year Grade 12
<p>Completion of a summer reading assignment is required for this course.</p> <p>This required senior-year course is comprised of world literature, focusing on major themes of writers of all periods and cultures. The essential questions in this final year of high school English are designed not only to ramp up in terms of intellectual sophistication, but are also accompanied by a variety of works requiring a degree of emotional maturity. Questions such as How do race and gender affect our thinking and decision making? What are the ingredients of a perfect world? What makes for true love? and What makes something comedic? are used to promote independent thinking, critical analysis, and college readiness skills. The end of the year culminates with an independent study project presented by each student to their peers that explores an area of personal interest and the formulation of an original thesis.</p>	

ENGLISH 4 HONORS (140) Prerequisite: Successful completion of English 3.	5 Credits Full Year Grade 12
<p>Completion of a summer reading assignment is required for this course.</p> <p>This required senior-year course is comprised of world literature, focusing on major themes of writers of all periods and cultures. The essential questions in this final year of high school English are designed not only to ramp up in terms of intellectual sophistication, but are also accompanied by a variety of works requiring a degree of emotional maturity. Questions such as: How do Race and Gender affect our thinking and decision making? What are the ingredients of a perfect world? What makes for true love? and What makes something comedic? are used to promote independent thinking, critical analysis, and college readiness skills. The end of the year culminates with an independent study project presented by each student to their peers that explores an area of personal</p>	

interest and the formulation of an original thesis. At the honors level, greater depth and breadth of content will be covered at an accelerated pace. Students will read more complex texts, assignments are more intensive and complex in that they promote expansion of concepts, creative problem solving, and critical thinking. Interest in literature and learning, analytical insight in class participation, analytical insight in written assignments and disciplined work habits are key criteria for success in the Honors level.

AP ENGLISH LITERATURE AND COMPOSITION (141) Prerequisite: Successful completion of English 3.	5 Credits Full Year Grade 12
Completion of a summer reading and writing assignment is required for this course. Building upon the skills learned in AP English Language and Composition, this senior-year AP course will introduce new skills of oral and written literary analysis, oral argument in class, techniques of research and writing about literature. With an emphasis on full-length works of fiction as well as poetry, this class will emphasize structural analysis and the use of literary devices, including figurative language, diction, symbolism, and tone. While enrollment is open, students are recommended to take AP English Language and Composition or English 3 Honors in their junior year. It is expected that all students take the AP English Literature and Composition exam in May.	

English Department Elective Courses

Full Year Courses

CREATIVE WRITING I (118) Prerequisite: None.	5 Credits Full Year Grades 9-12
Creative Writing is designed to permit students to concentrate on the writing of fiction and poetry. Students focus on structure, procedure, and the production of original drafts. Skills in peer and self-evaluation editing, proofreading, and revision are developed throughout the course.	

CREATIVE WRITING 2 (129) Prerequisite: Successful completion of Creative Writing 1 and English 1.	5 Credits Full Year Grades 10-12
With Creative Writing 2, 10 th , 11 th , and 12 th grade students who have successfully completed Creative Writing I will be able to continue to explore their talents as a writer. The class is designed as a Workshop course in which students will immerse themselves in the power of the written word.	

CREATIVE WRITING 3 (149) Prerequisite: Successful completion of Creative Writing 1, 2 and English 1, 2.	5 Credits Full Year Grades 11-12
In the third year of Creative Writing, 11 th and 12 th grade students will now focus their interests on specific genres to develop more independent, full-length and publishable works of poetry, prose, or plays. As they continue to develop their own original writer's voices, they will investigate the writing	

process and the “writerly life” in a workshop environment by selecting published “mentor” writers to research, allowing those influences to help inspire their own work.

JOURNALISM (125)

Prerequisite: Successful completion of English 1.

5 Credits
Full Year
Grades 10-12

In this course, students will experience the wide range of journalistic responsibility from determining what is news, generating story ideas, engaging in research, composing, laying out, designing and ultimately publishing. While analyzing the values, laws and philosophical issues inherent in this field, students will learn the practical day-to-day operation of a newspaper. It is expected that much of the editorial and production staff of school publications will be comprised of students who are taking this course or have completed it.

PUBLIC SPEAKING AND DEBATE (135)

Prerequisite: None.

5 Credits
Full Year
Grades 9-12

This course will provide a supportive space for students of all skill levels in developing and refining their public speaking skills for academic and real-world purposes. Students will be engaged in a variety of oral presentations, such as hands-on speech, interpretation of literature, and debate. In doing so, logic, critical analysis, and research techniques will be emphasized. Additionally, students will have the option of competing in forensic tournaments, which may lead to membership in the National Speech and Debate Honor Society.

READING AND WRITING FOR SUCCESS 1 (180), 2 (181), 3 (182), 4 (183)

Prerequisite: This course is assigned at the recommendation of the Child Study Team, is a Resource Center Level course and is an elective class.

5 Credits
Full Year
Grade 9-12

Reading and Writing for Success is a course designed to provide explicit instruction in reading skills (phonological awareness, comprehension, fluency and vocabulary) and writing skills (encoding, writing fluency, grammar and composition) essential to making progress toward grade level standards and curricula. Individualized programs are created to promote student progress toward acquisition of their specific goals and objectives.

AP SEMINAR (234)

Prerequisite: AP Seminar application and teacher recommendation required. Due to limited availability, enrollment in this course is based on acceptance into the program.

5 Credits
Full Year
Grade 10-11

Completion of a summer assignment may be required for this course. Please check with the instructor for further details.

Students must apply and be selected for this two-year AP Capstone program. Students will develop their analytical skills by exploring appropriate themes and topics selected by the teachers and the students. Students will learn to synthesize information from multiple sources, develop their own perspectives in research-based essays, and design oral and visual representations. Students will be

expected to complete an individual paper, presentation, and end-of-course exam as well as a team research project. These benchmark assignments will be submitted to the College Board and contribute to the final AP score. The second course needed to complete the AP Capstone program, *AP Research*, will be offered the following school year.

AP RESEARCH (235)

Prerequisite: Successful completion of AP Seminar.

5 Credits
Full Year
Grade 11-12

Completion of a summer assignment required for this course.

This full-year elective course will be the culminating class needed to complete the two-year AP Capstone program. This course will allow students to deeply explore an academic topic, problem, or issue of their own choice and interest. Through this investigation, students will cultivate the skills and discipline necessary to conduct independent research. Students will learn to design an effective and ethical plan of investigation which utilizes various academic research methods. The students will demonstrate their understanding by constructing a 5,000-word academic thesis paper as well as present and perform an oral defense of their research methodology.

WORLD FILM (138)

Prerequisite: Successful completion of English 2.

5 Credits
Full Year
Grades 11-12

The World Film course is for students who are interested in world film as an art form, not just as a means for entertainment. Students will explore film/cinema from an artistic, technical, social, historical, and analytical point of view. A part of the course includes analytical writing projects that are assigned as homework and independent research.

YEARBOOK (155); NEWSPAPER (157)

Prerequisite: None.

0 Credits
Full Year
Grades 11-12

Students must apply to the advisors of these two publications for admission to these work sessions. As staff members, they have opportunities in their areas of interest (art, photography, writing, typing, and business management).

Please note: No grades or credit will be given for these courses.

ENGLISH ENRICHMENT 12 (103)

Prerequisite: Placement by English Department.

2.5 or 5 Credits
Full Year
Grade 12

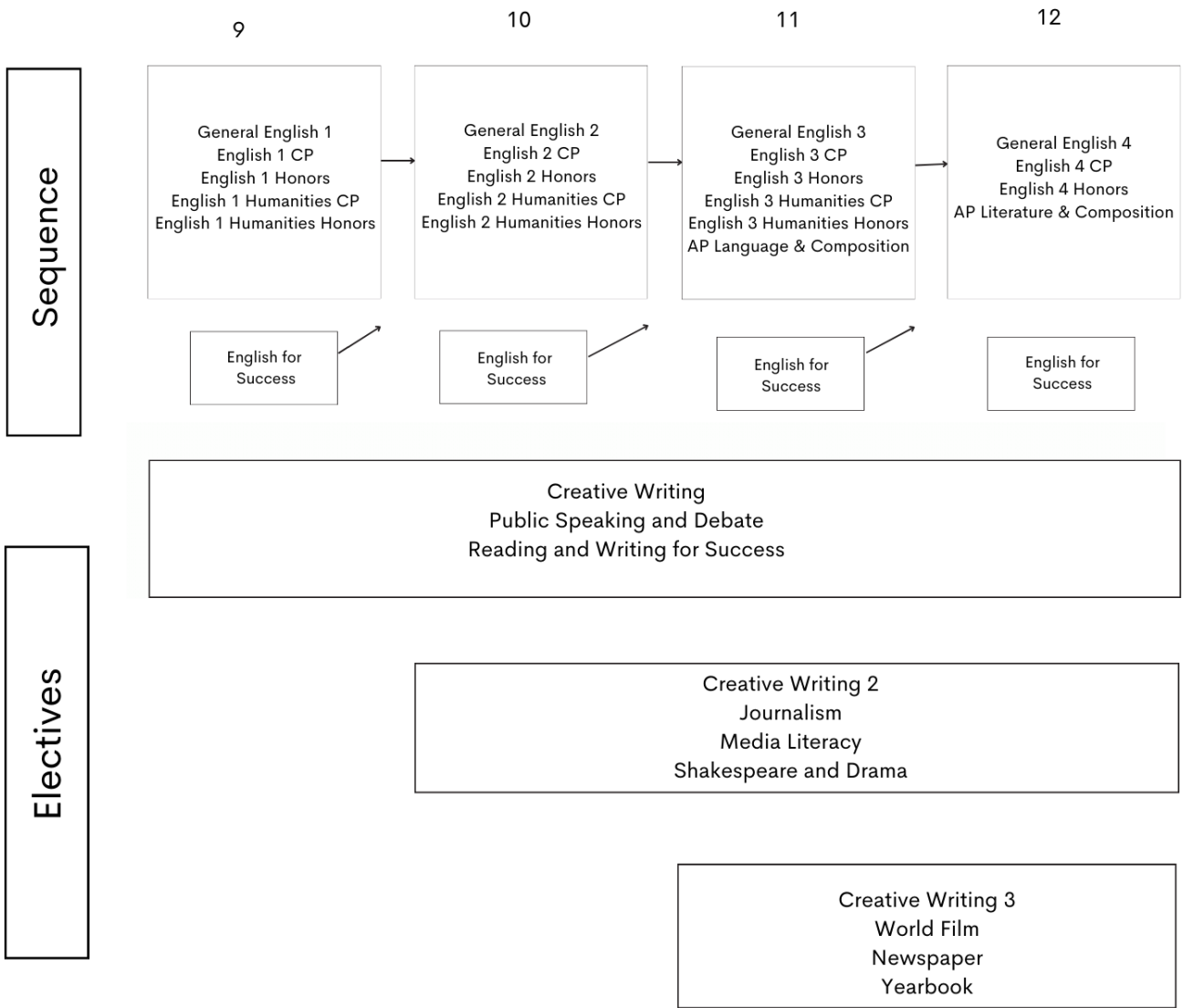
English Enrichment 12 (reading/writing) is a mandated course for those students who fell below the minimum level of proficiency on the New Jersey Graduation Proficiency Assessment (NJGPA) test in grade 11. The course reviews the concepts needed for students to be successful on the State mandated assessments required for graduation.

English Department Elective Courses

Semester Courses

MEDIA LITERACY (134) Prerequisite: Successful completion of English 1.	2.5 Credits Semester Grades 10-12
<p>Media literacy is a class that will teach students to engage actively and critically with various forms of media to evaluate their messages, and learn to become more active consumers and independent thinkers. They will deconstruct a wide range of news articles, photographs, advertisements, websites, television shows, and movies. In a world that has become ever more saturated with content derived from digital sources and social media, our definition of literacy continues to evolve, and notions of what is truthful and real and what is misleading and unreliable becomes increasingly complex. Navigating our popular media landscape presents many challenges and opportunities for today's youth as they learn how media can be a powerful tool for shaping our perceptions, and as such, they will learn how to manage and create their own content as informed citizens in a democratic society.</p>	
SENIOR MENTORS (255) Prerequisite: None.	2.5 Credits Semester Grade 12
<p>Senior Mentors is a new semester course that will provide 12th grade students an opportunity to develop their skills as collaborative leaders through training that will include but not be limited to group facilitation skills, understanding one's role as a leader, communicating with a co-facilitator, goal-setting and attainment, motivation and engagement, building trust and respect, active listening, time management, and understanding various leadership styles and their effectiveness in myriad situations. Students will then be provided the opportunity to put their learning into practice by mentoring 9th grade students at LHS with the necessary support and guidance as they transition to LHS.</p>	
SHAKESPEARE AND DRAMA (139) Prerequisite: Successful completion of English 1.	2.5 Credits Semester Grades 10-12
<p>Shakespeare and Drama, a semester course, is designed to broaden the scope of our Shakespearean study and to give students an understanding and appreciation of the importance of Shakespeare's works and his influence on world drama. Students will explore the Shakespearean comedies and histories, along with other tragedies not studied during our four comprehensive programs. In addition, the course will study the evolution of modern drama, with an emphasis on influence and context.</p>	

Course Sequence for English



New Jersey State mandates all students must take four years of English

Family and Consumer Science

Family and Consumer Science areas of study include: Foods & Nutrition, Fashion Design, Interior Design, Hotel/Restaurant Management, and Family/Child Development. Classes range from half-year to full-year and are designed to provide students with an overview of various areas, skills, and careers related to wellness, nutrition, child development, fashion, and foods/hospitality.

All the courses listed below satisfy the 21st Century Life and Careers graduation requirement (minimum of 5 credits required for graduation). While these are the requirements as per the NJDOE for graduation, please consult with your school counselor regarding your post-secondary program goals and specific requirements.

There can be courses where students may have proficiency in the content from prior or out-of-school programs or experiences. If a student seeks to enroll in a course and has not taken the required pre-requisite at Livingston High School, the student must demonstrate his/her comparable proficiencies to the department supervisor. Students may not enter into a course without successful completion of a required pre-requisite or department supervisor approval. Upon supervisor approval, students will be notified if they are permitted to enter into the requested course.

Please visit the LHS Family and Consumer Science Department website for additional information: [click here](#).

Family and Consumer Science Full Year Courses

FASHION 1 (711) Prerequisite: None.	5 Credits Full Year Grades 9-12
Fashion 1 introduces students to the exciting world of fashion through garment construction, study of consumer influences, trends and career opportunities. Students explore the basics of the fashion industry, fashion design, and textiles. Students have the opportunity to design and construct an outfit of their choice. Other topics included in this course are the global influences on marketing, fashion retailing, and e-commerce.	
FASHION 2 (721) Prerequisite: Successful completion of Fashion 1.	5 Credits Full Year Grades 10-12
Fashion 2 provides students with further exploration into original design, designer fabrics, advanced pattern-making techniques, and current trends in visual merchandising. Students will expand their knowledge of fashion textiles and clothing. Opportunities for fashion retailing, promotion, and planning special events will give the student a better understanding of business ventures.	
FOODS AND NUTRITION (722) Prerequisite: None.	5 Credits Full Year Grades 9-12
Foods and Nutrition is a course that introduces students to culinary skills and techniques while exploring the six essential nutrients. Students gain the knowledge of how to work safely with food, how to operate kitchen equipment, and the ability to identify kitchen tools. Reading recipes, working	

in teams, and communication skills are a constant focus throughout this course. Lab experiences in the school kitchens enhance each unit of study and give students a chance to demonstrate proficiency in food preparation methods related to the content in each unit. Students will gain an understanding of the journey food takes on the way to their table.

Family and Consumer Science Semester Courses

INTERIOR DESIGN (712) Prerequisite: None.	2.5 Credits Semester Grades 9-12
Interior Design is an entry-level course which involves the study of personal priorities in housing, house styles, basic principles in design, and color and space utilization for in-home business needs. Students use decision-making and creative skills in applying these principles when choosing colors, furniture, fabrics, floor covering, and other materials and when designing floor plans. This course introduces students to the variety of careers related to the field of interior design.	

HOTEL AND RESTAURANT MANAGEMENT (720) Prerequisite: Foods and Nutrition.	2.5 Credits Semester Grades 10-12
Hotel and Restaurant Management introduces students to the hospitality industry. Students gain an insight into the fundamentals, economics, operations, trends and career opportunities of this field. Current trends in the travel and tourism industry are explored.	
Hotel and Restaurant Management introduces students to the hospitality industry while also exploring the etiquette and customs of various countries. Students gain knowledge of the different segments of the hospitality industry: lodging, food and beverage, travel and tourism, and recreation. A “look behind the scenes” of some of the industry’s most well-known theme parks, restaurants, and hotels enhance each unit of study. Career opportunities, current trends, and relevant topics related to the hospitality industry are explored. Hands-on learning experiences provide students with the opportunity to further develop their culinary skills and techniques while exploring the food and beverage segment of the hospitality industry.	

FAMILY AND CHILD DEVELOPMENT 1 (730) Prerequisite: None.	2.5 Credits Semester Grades 10-12
Family and Child Development 1 provides students with the opportunity to explore and develop an understanding of human growth and development. Students explore the various aspects of personality, communication, relationships, skills associated with independence, and creativity in adolescent and early child development. This course explores methods for fostering creative problem-solving as related to career development, marriage, parenthood, and childcare. Lab experiences include working with preschool children.	

FAMILY AND CHILD DEVELOPMENT 2 (737)	2.5 Credits Semester Grades 10-12
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Prerequisite: Successful completion of Family and Child Development 1.	
<p>Family and Child Development 2 expands on the content and experiences of Family Child Development 1 by focusing on the learning processes of young children. Students will become familiar with developmental theories and how to apply them via the implementation of meaningful lessons/activities while working with young children. Students will become familiar with the career opportunities available to them as they assume responsibility for meeting the specific needs of a group of children. The lab portion of this course includes hands-on work such as the planning, organizing, and running of activities for 2-5 year old children at a local preschool. This course is highly recommended for students pursuing careers in education, social sciences, nursing/medicine, and/or being a parent.</p>	

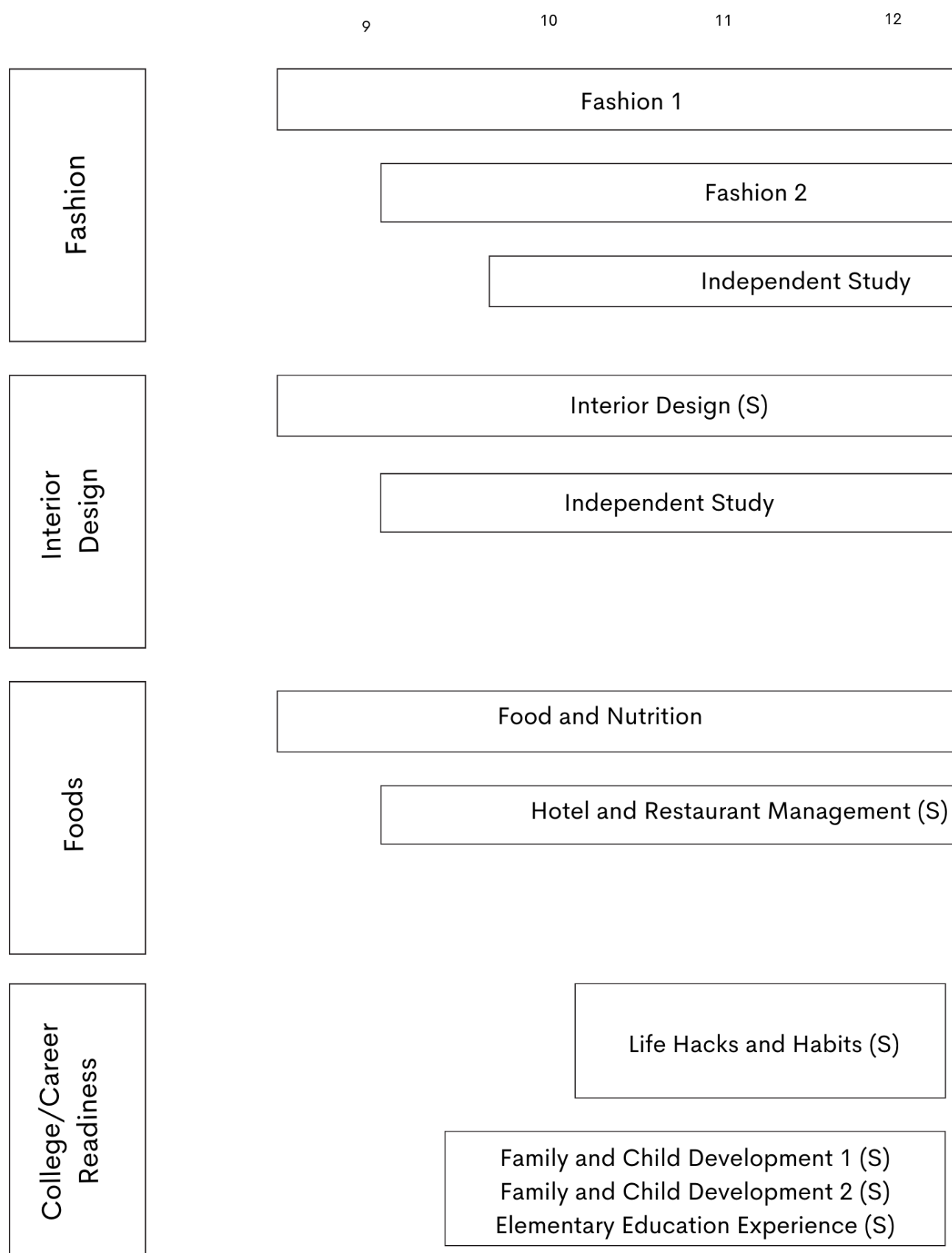
INDEPENDENT STUDY IN TECHNOLOGY (746, 747) Prerequisite: A minimum grade of B in one of the specified technology sequences is a good predictor for success in this course or demonstration of comparable proficiencies.	2.5 Credits Semester Grades 11-12
<p>This course is offered to students who have successfully completed both Level 1 and Level 2 courses in one of the following areas: Architecture/Engineering CAD, Automotive Mechanics, Technology and Design, Fashion, Visual/Graphic Communication or Woods/Stagecraft. The student must contract with a sponsoring technology teacher in one of the areas specified. The nature and detail of the work to be completed by the student must be mutually agreed upon <u>prior to</u> the beginning of the course. This course is for students who intend to enter design-related competitions and/or develop a college admissions portfolio.</p>	

ELEMENTARY EDUCATION EXPERIENCE (754) Prerequisite: Successful completion of Family & Child Development 1.	5 Credits Spring Semester Only Grade 12
<p>Elementary Education Experience is a half-year course (spring semester only, over the course of two periods) available to those seniors interested in pursuing a career in teaching. Students enrolled in this program are assigned to work with a specific teacher at the elementary level. During this experience, students keep a journal about their classroom experiences, create a portfolio, and participate in a blog. Students receive a pass/fail grade for the classroom experience.</p>	

LIFE HACKS & HABITS (753) Prerequisite: None.	2.5 Credits Grade 12
<p>Life Hacks and Habits is for young adults bridging into the world following high school. The course focuses on enhancing the students' knowledge of the seven areas of executive functioning. As the components of executive functioning are studied, learners will accumulate "hacks", techniques, and strategies to support their successful transition to higher education or as they pursue a career path. The study of meaningful and relevant topics such as coping with and managing stress, finding contentment while living mindfully, and the areas of wellness provide students with knowledge about building emotional resilience. Students will investigate the structures of the brain and the neuroscience of executive functioning, as they acquire skills and techniques to "rewire" the brain to</p>	

positively support cognitive output, sharpen mental acuity, and boost overall achievement. The course will share routines for success that are grounded in recent research on forming Habits. Resources include Tiny Habits by BJ Fogg and the Power of Habits by Charles Duhigg.

Course Sequence for Family and Consumer Science by Area of Interest



Family and Child Development 2 and Elementary Education Experience can run concurrently

Health and Physical Education Department

The goal of the health and physical education program is to teach students health literacy and physical literacy so that they acquire the skills, knowledge, attitudes, confidence and competence to live a healthy, active life. Students are scheduled for one marking period of health education and three marking periods of physical education for each year of attendance in high school. Course offerings vary by marking period and grade level and a list of activities is provided below.

Health and physical education are a mandated graduation requirement, and therefore have specific requirements for content units and time allocation. The curriculum is compliant with the NJ Student Learning Standards in Comprehensive Health and Physical Education and with all corresponding Legislative Statutes. Parents with questions or concerns about topics in the health education program are encouraged to seek out the teacher of record and school administrative team. Any child whose parent or guardian presents to the school principal a signed statement that any part of the instruction in health, family life education or disease prevention (HIV) education is in conflict with his/her conscience, or sincerely held moral or religious beliefs, shall be excused from that portion of the course where such instruction is being given and no penalties as to credit or graduation shall result therefrom. The request for exemption may be found on the department webpage (NJSA 18A:35-4.7).

Please visit the LHS Health and Physical Education Department website for additional information: [click here](#).

PHYSICAL EDUCATION 9/HEALTH 9 (015-1) Prerequisite: None.	2.5 Credits Semester Grade 9
<p>In addition to Physical Education 9, this is the first course in the sequence of four required courses, which comprise the comprehensive health and wellness education program. This course provides students with the knowledge and skills to critically analyze the effects of personal decisions on growth and development and to engage in positive behaviors, which maintain a healthy lifestyle. The curriculum includes topics such as healthy relationships, drugs and medicine, nutrition and mental/emotional health, which is inclusive of depression and suicide. Through participation in a variety of instructional activities, students enhance communication, problem-solving, and refusal skills.</p>	

PHYSICAL EDUCATION 9 (015-2) Prerequisite: None.	2.5 Credits Semester Grades 9
<p><u>Fitness 1:</u> This course examines the 5 components of health related physical fitness: cardiorespiratory endurance, body mass index, muscular strength, muscular endurance and flexibility. Using a variety of equipment and technology, students will develop a personal fitness plan and work toward their fitness goals through the duration of the course. Students will know what exercises contribute to improvement of the components and be tested for each. Polar Bluetooth Heart Rate Monitors enable students to individualize their experience and track their level of effort based on time spent in target heart rate.</p> <p><u>Adventure I:</u> This course of study introduces students to the opportunity to engage in physical, emotional, and social challenges in a safe environment. The atmosphere, facilitated by a certificated</p>	

adventure instructor, is both emotionally and physically designed for safety. As a result of their participation in Project Adventure, students will learn teamwork, communication, conflict resolution, cooperation, and how to face risk. Prior to participation in the course, parents/guardians will be asked to sign a liability waiver in order for students to participate in elements that are off the ground.

Team Sports/Games: Students will participate in a variety of games and team activities that foster cooperation, communication, and teamwork. Strategies such as offense, defense and invasion will be explored. Depending on the time of year, activities may include, but are not limited to: hockey, team handball, tchoukball, ultimate Frisbee, softball, volleyball, basketball, football, soccer, tennis and wiffle ball.

Body Awareness/Gymnastics: Students will learn general body awareness as they develop movement skills through different planes and rotate around different axes. Students will explore rhythm and lifetime physical activity through movement.

PHYSICAL EDUCATION 10/DRIVER EDUCATION (025-1)

Prerequisite: Successful completion of Physical Education 9.

**2.5 Credits
Semester
Grade 10**

This course provides instruction in the mechanical operation of the automobile, basic driving techniques, defensive driving strategies, and the handling of driving emergencies. A major portion of the course is devoted to learning the New Jersey motor vehicle laws and regulations for the State driver's examination, which is administered in class. Alcohol and Drug prevention education, refusal skills, as well as decision-making skills, are critical components of this course. The topic of organ and tissue donation is addressed and students are made aware of the registration process via NJ MVC licensure. All students take the NJ Motor Vehicle Commission driver's/permit exam as one of the culminating activities for this course.

PHYSICAL EDUCATION 10 (025-2)

Prerequisite: Successful completion of Physical Education 9.

**2.5 Credits
Semester
Grades 10**

Adventure II: This course of study continues to afford students the opportunity to engage in physical, emotional and social challenges in a safe environment. The atmosphere, facilitated by a certificated adventure instructor, is both emotionally and physically designed for safety. As a result of their participation in Project Adventure, students will learn teamwork, communication, conflict resolution, cooperation and how to face risk. Prior to participation in the course, parents/guardians will be asked to sign a liability waiver in order for students to participate in elements that are off the ground.

Softball: This course introduces the sport of softball and the knowledge and skills associated with successful participation. Skills include throwing, catching, scoring, base running and hitting.

Fitness II: This course reinforces the 5 components of health related physical fitness: cardiorespiratory endurance, body mass index, muscular strength, muscular endurance and flexibility. Using a variety of equipment and technology, students will develop a personal fitness plan and work toward their fitness goals through the duration of the course. Students will know what exercises contribute to improvement of the components and be tested for each. Polar Bluetooth Heart Rate Monitors enable students to individualize their experience and track their level of effort based on time spent in target heart rate.

Football: The course introduces the sport of football and the knowledge and skills associated with successful participation. Skills include throwing, catching, running, kicking and punting.

Volleyball: The course introduces the sport of volleyball and the knowledge of skills associated with successful participation. Skills include serving, bumping, setting, spiking and tactical positioning.

Pickleball: The course will introduce the skills of the sport in cooperative play format while teaching strategy, history, rules, and etiquette.

PHYSICAL EDUCATION 11 (035-1)

Prerequisite: Successful completion of Physical Education 10.

**2.5 Credits
Semester
Grades 11**

Golf: This course offers students the opportunity to engage in a variety of skill development, including holding the club, body position, driving, putting and chipping. Students will also learn about golf etiquette, rules, and scoring. Using a variety of equipment and technology, students will improve their skills and understanding of the game of golf. The course uses video-analysis to capture student performance and analyze skill cues to help students improve their game.

Adventure III: This course of study continues to give students the opportunity to engage in physical, emotional, and social challenges in a safe environment. The atmosphere, facilitated by a certificated adventure instructor, is designed to support emotional and physical safety. As a result of their participation in the Adventure course, students will utilize the skill of teamwork, communication, conflict resolution, cooperation and how to face risk. Prior to participation in the course, parents/guardians will be asked to sign a liability waiver in order for students to participate in elements that occur off the ground.

Archery I: Students will be introduced to Archery as an individual physical activity. Trained instructors will guide students through the cues for shooting at a target. Foundational strategies to support safety and protocols for participation will also be explored. Students will have opportunities to engage in self-reflection and set goals for improving their archery game.

PHYSICAL EDUCATION/HEALTH 11 (035-2)

Prerequisite: Successful completion of Physical Education 10.

**2.5 Credits
Semester
Grade 11**

This course encompasses several components of the comprehensive health education model, including injury prevention and safety, drugs and medicine, human sexuality, health promotion, and disease prevention. The major portion of this course is devoted to the attainment of the skills and knowledge for responding in emergencies. The American Red Cross Course First Aid/CPR/AED for Community and Schools resources serves as the basis for the curriculum. At the end of the unit, all students who have shown mastery are given the opportunity to apply for ARC certification (for a nominal fee). Additionally, students will research and analyze current drug trends and the process of addiction. Through participation in group presentations students will enhance communication, problem-solving, and refusal skills.

PHYSICAL EDUCATION 12 (045-1)

Prerequisite: Successful completion of Physical Education 11.

**2.5 Credits
Semester**

	Grades 12
<p><u>Badminton:</u> The course examines the rules of Badminton scoring, boundaries, technique, and etiquette. Proper technique will be examined including hand grip for serving, backhand, forehand, overhead slam and underhand. The course uses a variety of equipment and technology, including videos of proper technique. Students will know how to hold and grip the racquet, keep score, and how to self-assess and provide supportive peer feedback.</p> <p><u>Archery II:</u> Students will be introduced to Archery as an individual physical activity. Trained instructors will guide students through the cues for shooting at a target. Foundational strategies to support safety and protocols for participation will continue to be explored.</p> <p><u>Team Games:</u> Students will participate in a variety of games and team activities that foster cooperation, communication, and teamwork. Strategies such as offense, defense, and invasion will be explored. Depending on the time of year, activities may include, but are not limited to: pillow polo hockey (soft stick hockey), team handball, tchoukball, softball, volleyball, basketball, football, ultimate frisbee, soccer and cricket.</p>	

PHYSICAL EDUCATION/HEALTH 12 (045-2) Prerequisite: Successful completion of Physical Education 11.	2.5 Credits Semester Grade 12
<p>This course continues to build on the comprehensive health education model by further addressing relationships and marriage, pregnancy, childbirth and family, drugs and medicine, disease, and wellness. Students analyze the components needed to build a foundation for stable, healthy relationships. Students will be able to identify the aspects of unhealthy relationships. Students examine the roles and responsibilities of parenting and environmental aspects of pregnancy and childbirth in order to prepare for a possible future role as parents of healthy offspring. Current and topical health issues such as cancer-prevention education are emphasized during this course.</p>	

ADAPTED PHYSICAL EDUCATION & GENERAL HEALTH (055) Prerequisite: Recommendation by the Child Study Team.	5 Credits Full Year Grades 9-12
<p>This course is designed for students who require a modified program to meet the physical education and health requirements. The course integrates health and physical education concepts to allow maximum participation in a supportive and safe environment. The program activities include fitness activities, lifetime sports, and inclusion in regular physical education activities within students' capabilities. At times, a more individualized program may be developed and prescribed. Parents are advised to consult with the Child Study Team for any potential program modifications as early as possible in the scheduling process.</p>	

Physical Education Department Elective Courses

Semester Course

DANCE 1 (065) Prerequisite: None.	2.5 Credits Semester Grades 9-12
<p>This course is an introductory course for all students who wish to study dance as an art form and express themselves through movement. Coursework will be both participatory and theoretical, including but not limited to experiencing dance techniques such as ballet, modern, jazz and hip hop dance. Experiences primarily reflect a studio dance technique where topics and concepts are interlaced and an ongoing part of the daily technique classwork in all units. In addition to physically taking class on a daily basis students will also gain knowledge and aesthetic awareness of dance in its historical, cultural, and social contexts through the study of dance history in all genres of dance. An introduction to stretch and conditioning for dancers including the different types and importance of stretch and conditioning will be introduced in this course, as well as, an overall understanding of wellness. Instructors will vary the coursework sequence to reflect student needs and serve skill development. This course can be taken either in lieu of or in addition to a student's full Physical Education semester.</p>	

DANCE 2 (066) Prerequisite: Dance 1.	2.5 Credits Semester Grades 10-12
<p>This course is designed as an extension course to Dance I. A great focus will be on expanding dance technique to a more accomplished degree. Instruction will focus on increasing understanding of individual style vernacular, clarity of movement, intention and delivery of artistic intent. Throughout this course, various dance genres such as ballet, modern, jazz, and hip hop will be explored at an intermediate level. Through a variety of skill assessments students will have the opportunity to work individually and collaboratively to design dance studies that integrate and combine movement vocabulary, choreographic devices, notation systems and dance structures drawn from a variety of dance genres. Instructors will continue to vary the coursework sequence to reflect student needs and serve skill development. This course can be taken either in lieu of or in addition to a student's full Physical Education semester.</p>	

DANCE 3 (067) Prerequisite: Dance 2.	2.5 Credits Semester Grades 10-12
<p>This course is designed as an extension to Dance I and Dance II. A great focus will be on expanding dance technique to an advanced degree. A multitude of intermediate and advanced pieces of choreography and techniques from a variety of famous choreographers will be explored and demonstrated. Students will begin to analyze and understand the choreographic process by working individually and collaboratively to develop their own creative expression through improvisation, choreography and performance while using a variety of movement vocabulary, choreographic devices, notation systems and dance structures drawn from a variety of dance genres. Instructors will continue to vary the coursework sequence to reflect student needs and serve skill development. This course can be taken either in lieu of or in addition to a student's full Physical Education semester.</p>	

Mathematics Department

The vision of the mathematics standards is focused on achieving one crucial goal:

To enable ALL of New Jersey's children to acquire the mathematical skills, understandings, and attitudes that they will need to be successful in their careers and daily lives.

Perhaps the most compelling reason for this vision is that all of our children, as well as our state and our nation, will be better served by higher expectations, by curricula that go far beyond basic skills and include a variety of mathematical models, and by programs which devote a greater percentage of instructional time to problem-solving and active learning.

The sequential nature of mathematics requires attention to proper placement. Decisions will be based on student aptitude and demonstrated performance. A detailed analysis of the department's procedures for placement is available from the department supervisor or the school counselor. All courses are closely aligned with the New Jersey Student Learning Standards for Mathematics. While there are the requirements as per the NJDOE for graduation, please consult with your school counselor regarding your post-secondary program goals and specific requirements.

The Mathematics Department offers the opportunity for a student to learn different programming languages while at Livingston High School. The Computer Programming course introduces students to Python and other elements of Computer Science and Computer Programming in the 21st Century. The AP Computer Science course explores JAVA.

The department offers several other electives for students, including College Math Seminar, College Algebra and Trigonometry, and Explorations in Data Science & Python. Students who would like to pursue advanced studies in mathematics can also take AP Statistics, AP Precalculus, AP Precalculus with Intro to Calc BC, AP Calculus AB or BC, and/or Multivariable Calculus.

The department encourages parents to discuss with their child the detailed course sequences provided, to help determine a math course sequence of study that allows for growth over time as his or her skills and interests in mathematics develop.

There can be courses where students may have proficiency in the content from prior or out-of-school programs or experiences. If a student seeks to enroll in a course and has not taken the required pre-requisite at Livingston High School, the student must demonstrate his/her comparable proficiencies to the department supervisor. Students may not enter into a course without successful completion of a required pre-requisite or department supervisor approval. Upon supervisor approval, students will be notified if they are permitted to enter into the requested course.

Please visit the LHS Math Department website for additional information: [click here](#).

Math Department Core Courses

GENERAL ALGEBRA 1 LAB (319) Prerequisite: This course is assigned at the recommendation of the Child Study Team and is a Resource Center Level course.	10 Credits Full Year Grades 9-12
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This course is designed for students in resource center math who are approaching readiness for algebraic thinking. Topics include: solving linear equations and inequalities, systems of equations and inequalities, fundamental operations with monomial and polynomial expressions, factoring, solving quadratic equations, graphing different types of functions, radical expressions, and practical word problems. The foundation for this study is the structure of the real number system. This course will be taught in a double period which will include a lab component.

Upon completion of this class, the anticipated next course in a student's math sequence would be General Geometry. At the recommendation of the Child Study Team, students who demonstrate algebraic readiness will receive additional enrichment opportunities and, upon successful completion of this accelerated work, may be eligible for Geometry Lab CP or Geometry CP.

ALGEBRA 1 LAB CP (316)

Prerequisite: None.

**10 Credits
Full Year
Grades 9-10**

This college prep course is designed for students who wish to meet the Algebra 1 requirement for college entrance, however, may require additional support in both mathematics content and test-taking strategies. Topics include: solving linear equations and inequalities, systems of equations and inequalities, fundamental operations with monomial and polynomial expressions, factoring, solving quadratic equations, graphing different types of functions, radical expressions, and practical word problems. The foundation for this study is the structure of the real number system. This course will be taught in a double period which will include a lab component.

ALGEBRA 1 CP (312)

Prerequisite: None.

**5 Credits
Full Year
Grades 9-12**

This college preparatory course includes a study of the language of algebra, solving linear equations and inequalities, systems of equations and inequalities, quadratic equations, fundamental operations with monomials, polynomial and radicals, factoring, graphing different types of functions, and practical word problems. The foundation for this study is the structure of the real number system.

ALGEBRA 1 HONORS (313)

Prerequisite: None.

**5 Credits
Full Year
Grade 9**

Completion of a summer assignment is required for this course.

Algebra 1 Honors is a course designed for the well-motivated student who is capable of moving at an above average pace in mathematics. Students in this class often are in transition from a standard math program to an accelerated program. A minimum grade of B+ or higher in 8th grade math and/or teacher recommendation are good predictors for success in this course. The student's performance in this ninth grade course will be one of the factors in determining placement in tenth grade. Topics, concepts, and skills will be presented in greater depth than in Algebra 1 CP.

GENERAL GEOMETRY (378)

**5 Credits
Full Year**

Prerequisite: This course is assigned at the recommendation of the Child Study Team and is a Resource Center Level course.	Grade 10-12
<p>This course is designed for students in resource center math who are approaching readiness for geometric and spatial thinking. This course provides students with a modified Geometry curriculum in which emphasis is placed on developing students' spatial and reasoning skills. Students will learn about geometric notation, definitions, postulates, and theorems. Rather than proving theorems, students will focus on applying geometric concepts related to points, lines, planes, polygons, circles, and three-dimensional shapes. Review of algebraic skills will be infused in lessons throughout the year to ensure students' retention of concepts learned in General Algebra.</p>	

GEOMETRY LAB CP (321) Prerequisite: Successful completion of Algebra 1 or General Algebra 1 Lab and recommendation from the Child Study Team.	10 Credits Full Year Grades 9-12
<p>This college prep course includes the study of plane and solid figures, critical deductive and inductive reasoning and the axiomatic method of proof. Numeric and algebraic applications are linked to the geometric concepts. This course will be taught in a double period which includes a lab component.</p>	

GEOMETRY CP (322) Prerequisite: Successful completion of Algebra 1 or General Algebra 1 Lab and recommendation from the Child Study Team.	5 Credits Full Year Grades 9-12
<p>This college prep course includes the study of plane and solid figures, critical deductive and inductive reasoning and the axiomatic method of proof. Numeric and algebraic applications are linked to the geometric concepts.</p>	

GEOMETRY HONORS (310) Prerequisite: Successful completion of Algebra 1.	5 Credits Full Year Grade 9 -12
<p>Completion of a summer assignment is required for this course. Topics studied in this challenging course include the study of plane and solid figures, critical deductive and inductive reasoning, and the axiomatic method of proof. Students are expected to function at an abstract analytical level and be capable of independent thought. It is assumed students in this course are moving in the accelerated track for their mathematics studies. Students should possess strong spatial aptitude and algebra skills. A minimum grade of B+ or higher in 8th grade Algebra 1 or Algebra 1 Honors and/or teacher recommendation are good predictors for success in this course.</p>	

GENERAL INTERMEDIATE ALGEBRA (379) Prerequisite: This course is assigned at the recommendation of the Child Study Team and is a Resource Center Level course.	5 Credits Full Year Grades 11-12
<p>This course is designed for students in resource center math who require instruction to further develop Algebra and Geometry skills. General Intermediate Algebra expands upon the concepts learned in General Algebra and General Geometry to promote a deeper understanding of more</p>	

complex algebraic topics. Topics include solving linear equations and inequalities, systems of equations and inequalities, operations with polynomial expressions, simplifying radicals and solving quadratic equations. The course also reviews the concepts needed for students to be successful on college placement exams.

INTERMEDIATE ALGEBRA (329)

Prerequisite: Successful completion of Geometry.

5 Credits
Full Year
Grades 10-12

Intermediate Algebra expands upon the concepts learned in Algebra I and Geometry to promote a deeper understanding of more complex algebraic topics. Topics include solving linear and quadratic equations and inequalities, quadratic functions, polynomial functions, rational functions, radical functions, rational exponents, the complex number system, and applications.

ALGEBRA 2 LAB CP (318)

Prerequisite: Successful completion of Geometry.

10 Credits
Full Year
Grades 11-12

After a brief review of prerequisite skills learned in Algebra 1, instruction in this course focuses on the study of nonlinear functions: polynomial, exponential, logarithmic, radical, and rational. The course also extends the study of algebra from real numbers to the complex number system. Emphasis is placed on understanding the behavior and characteristics of functions numerically, analytically, and graphically. Applications are made through word problems and will integrate algebra skills and geometric concepts. This course will be taught in a double period which includes a lab component.

ALGEBRA 2 CP (332)

Prerequisite: Successful completion of Geometry.

5 Credits
Full Year
Grades 9-12

After a brief review of prerequisite skills learned in Algebra 1, instruction in this course focuses on the study of nonlinear functions: polynomial, exponential, logarithmic, and radical. The course also extends the study of algebra from real numbers to the complex number system. Emphasis is placed on understanding the behavior and characteristics of functions numerically, analytically, and graphically. Applications are made through word problems and will integrate algebra skills and geometric concepts.

ALGEBRA 2 HONORS (320)

Prerequisite: Successful completion of Geometry.

5 Credits
Full Year
Grades 9-12

Completion of a summer assignment is required for this course.

This course will provide a rigorous and comprehensive background for students of high mathematical ability. A grade in the "A" range in Algebra 1 and/or teacher recommendation are good predictors for success in this course. The curriculum includes the study of linear and nonlinear functions (polynomial, exponential, logarithmic, and rational). The course also extends the study of algebra from real numbers to the complex number system. Students must demonstrate their grasp of essential concepts through their interactions with each other. Challenge problems, projects,

calculator labs and group work extend and expand text material and provide the opportunity for students to communicate mathematical understanding.

APPLICATIONS OF MATHEMATICS (374)

Prerequisite: This course is assigned at the recommendation of the Child Study Team and is a Resource Center Level course.

5 Credits
Full Year
Grade 12

This course is designed for seniors in the resource center math program. Individualized reinforcement of topics on State-mandated assessments, real-life uses of problem solving, and computational skills are stressed in this course. The course also reviews the concepts needed for students to be successful on college placement exams.

PRECALCULUS CP (342)

Prerequisite: Successful completion of Algebra 2.

5 Credits
Full Year
Grades 10 - 12

This course provides necessary mathematics knowledge for students interested in continuing mathematical studies in college. The curriculum extends the study of linear and nonlinear functions. Other topics include trigonometry, sequences and series and conic sections. Real life applications are integrated throughout the year.

COLLEGE ALGEBRA AND TRIGONOMETRY (345)

Prerequisite: Successful completion of Algebra 2 CP or Intermediate Algebra CP.

5 Credits
Full Year
Grades 11-12

This course is for students not taking Pre-Calculus, but who are interested in obtaining additional knowledge of mathematics. College Algebra and Trigonometry expands on the topics of functions and their graphs introduced in Algebra 2. The course investigates trigonometric functions and their applications.

COLLEGE MATH SEMINAR (348)

Prerequisite: Successful completion of Algebra 2 CP or Intermediate Algebra.

5 Credits
Full Year
Grade 12

This is a survey course intended for seniors who wish to obtain additional mathematics knowledge. The course provides an introduction of discrete math topics encountered in Liberal Arts college curriculum, such as probability, informal statistics, graph theory, election theory, logic, fair division, and cryptology.

PRECALCULUS HONORS (331)

Prerequisite: Successful completion of Algebra 2.

5 Credits
Full Year
Grades 10-12

Completion of a summer assignment is required for this course.

This is a rigorous course which includes instruction in trigonometry, analytic geometry, matrices, linear and nonlinear functions, sequences, series, and an introduction to limits. Students must

demonstrate their grasp of essential concepts through their interaction with each other. Challenge problems, calculator labs, video presentations, and group work extend and expand text material and provide opportunities for students to communicate mathematical understanding. A minimum grade of B or higher in Algebra 2 Honors is a good predictor for success in this course. This course is a suggested prerequisite for the AB level of Advanced Placement Calculus.

AP PRECALCULUS (354)

Prerequisite: Successful completion of Algebra 2.

5 Credits
Full Year
Grades 10-12

Completion of a summer assignment is required for this course.

AP Precalculus will focus on the study of functions and how they can model various phenomena. This course will provide students with the skills needed to complete more advanced coursework in mathematics, including Calculus CP and AP Calculus AB. Students will study functions using the four-pronged approach followed in AP Calculus through multiple representations (graphical, numerical, verbal, and analytical). This will ensure a deeper understanding of concepts that will help students to engage with both familiar and novel contexts. Topics reviewed and explored in this course include polynomial and rational functions, exponential and logarithmic functions, trigonometric and polar functions, functions involving parameters, vectors, conics, and matrices. Students must demonstrate their grasp of essential concepts through their interaction with each other. Challenge problems, calculator labs, video presentations, and group work extend and expand text material and provide opportunities for students to communicate mathematical understanding. A minimum grade of B+ or higher in Algebra 2 Honors can be a good predictor for success in this course. This course is a suggested prerequisite for the AB level of Advanced Placement Calculus. It is expected that all students take the AP Precalculus exam in May.

CALCULUS CP (347)

Prerequisite: Successful completion of Pre-Calculus.

5 Credits
Full Year
Grades 11 - 12

Completion of a summer assignment is required for this course.

This course is designed for students who have completed the traditional four-year college prep sequence in mathematics before their senior year in high school. The course incorporates topics from Pre-Calculus and enables the student to hone his/her algebra skills and techniques and to extend his/her knowledge of analytic geometry. The course also focuses on helping students to develop an understanding of the derivative and its applications and introduces students to some of the techniques and applications of integration. Students will work with real-life applications and data to model the use of calculus to solve problems in areas such as business, economics, management, and/or the social and life sciences.

AP CALCULUS AB (351)

Prerequisite: Successful completion of Pre-Calculus.

5 Credits
Full Year
Grades 10-12

Completion of a summer assignment is required for this course.

This course is recommended to students with a strong four-year background in college prep mathematics. The curriculum includes theory of limits, continuity, mean value theorem, properties and applications of differentiation and integration. This Advanced Placement course is taught at a

college level. Students must possess a strong interest in mathematics and be willing to devote extra time to this course. A minimum grade of B or higher in AP Precalculus or a B+ or higher in Precalculus CP and teacher recommendation can be good predictors for success in this course. It is expected that all students take the AP Calculus AB exam in May.

AP PRECALCULUS WITH INTRODUCTION TO CALCULUS BC (355) Prerequisite: Successful completion of Algebra 2 Honors.	5 Credits Full Year Grades 10-11
<p>Completion of a summer assignment is required for this course.</p> <p>AP Precalculus will focus on the study of functions and how they can model various phenomena. This course will provide students with the skills needed to complete more advanced coursework in mathematics. Students will study functions using the four-pronged approach followed in AP Calculus through multiple representations (graphical, numerical, verbal, and analytical). This will ensure a deeper understanding of concepts that will help students to engage with both familiar and novel contexts. Topics reviewed and explored in this course include polynomial and rational functions, exponential and logarithmic functions, trigonometric and polar functions, functions involving parameters, vectors, conics, and matrices. Students must demonstrate their grasp of essential concepts through their interaction with each other. Challenge problems, calculator labs, video presentations, and group work extend and expand text material and provide opportunities for students to communicate mathematical understanding. A minimum grade of B+ or higher in Algebra 2 Honors can be a good predictor for success in this course. This course is a prerequisite for the BC level of Advanced Placement Calculus. Therefore, it will include an additional in-depth unit on limits, continuity, and the derivative. It is expected that all students take the AP Precalculus exam in May.</p>	

AP CALCULUS BC (350) Prerequisite: Successful completion of AP Precalculus with Introduction to Calculus BC. Students who successfully complete AP Precalculus and are looking to enroll in AP Calculus BC may do so with Supervisor approval.	5 Credits Full Year Grades 10-12
<p>Completion of a summer assignment is required for this course.</p> <p>In addition to the material taught in AP Calculus AB, this course includes units on differential equations, integration techniques, polar area, vectors, parametric equations, and infinite series. A minimum grade of B or higher in AP Precalculus with Introduction to Calculus BC is a good predictor for success in this course.</p> <p>It is expected that all students take the AP Calculus BC exam in May.</p>	

MULTIVARIABLE CALCULUS (349) Prerequisite: Successful completion of AP Calculus BC.	5 Credits Full Year Grades 11-12
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Multivariable calculus is the study of differential, integral, and vector calculus for functions of more than one variable. Multivariable Calculus is used in the physical sciences, economics, engineering, and computer graphics. Upon completion of this full year course, students will be able to extend differentiation and integration to vector-valued functions, apply vector tools to study curvature, study the motion of a particle along a path, extend the concepts and techniques of differential calculus to functions of several variables, compute partial derivatives, evaluate double and triple integrals, explore vector fields, explore integration over curves, paths, and surfaces, and solve applied problems. Multivariable Calculus is a rigorous course that builds on the skills and concepts students learned in AP Calculus BC. It is equivalent to a third semester of college level calculus. Therefore, this course will receive AP weighting when grades are calculated.

Mathematics Elective Courses

Full Year Courses

COMPUTER PROGRAMMING (315) Prerequisite: Algebra 1.	5 Credits Full Year Grades 9-12
<p>The Computer Programming course is a survey course designed to provide highly motivated students with enhanced problem solving skills through the study of structured programming. It is recommended that students have knowledge of basic computer operations. The course will concentrate on various methods of problem solving and the conversion of algorithmic methods of problem solving into computer programs. Python will be the predominant programming language used to develop computer programs. Students will explore programming methodologies using case studies, projects, models, individual application and cooperative learning techniques.</p>	

EXPLORATIONS IN DATA SCIENCE AND PYTHON (364) Prerequisite: Successful completion of Algebra 1.	5 Credits Full Year Grades 9-12
<p>This course synthesizes statistics, mathematics, and computer science, thereby providing students with the critical thinking skills needed for them to be problem solvers in the workplace and in their daily lives. Students will learn the content through project-based units. Topics include variability, data ethics, univariate, bivariate, and multivariate data, measures of center and spread, sampling, visual representations of data, probability, data collection and analysis, modeling with data, and machine learning. Students will be able to make and evaluate data -based arguments and understand the power of data in society. Students will use Python, Google Sheets, and the graphing calculator to help with statistical analysis.</p>	

AP STATISTICS (352) Prerequisite: Successful completion of Algebra 2.	5 Credits Full Year Grades 10-12
<p>Completion of a summer assignment is required for this course. This course is designed to meet the growing need for knowledge of the statistical procedures necessary to analyze data from all disciplines. Students are introduced to the major concepts and tools for collecting, analyzing, and inferring from data. The four broad conceptual themes include:</p>	

exploratory data, planning a study, anticipating patterns and statistical inference. This course is designed for students who intend to study business, economics, social sciences and many other disciplines where data analysis is required. It may be taken concurrently with Pre-Calculus or Calculus. A minimum grade of “A-” in college prep (CP) level classes or “B” in honors level classes is a good predictor for success in this course. It is expected that all students take the AP Statistics exam in May.

AP COMPUTER SCIENCE A (353)

Prerequisite: Algebra 2 or Computer Programming or Electrical/Computer Science for Engineering.

**5 Credits
Full Year
Grades 10-12**

The curriculum reviews, develops and expands topics studied in prior programming courses. This course enables the student to develop skills in writing logically-structured, well-documented programs using object-oriented programming in the JAVA programming language. APCS is recommended for students who have a strong interest in computer science and engineering and are willing to spend the extra time beyond the classroom this course requires. A minimum grade of “B” or higher in Computer Programming or Algebra 2 is a good predictor for success in this course. It is expected that all students take the AP Computer Science A exam in May.

AP SEMINAR (234)

Prerequisite: AP Seminar application and teacher recommendation required. Due to limited availability, enrollment in this course is based on acceptance into the program.

**5 Credits
Full Year
Grades 10-11**

Completion of a summer assignment may be required for this course. Please check with the instructor for further details.

Students must apply and be selected for this two-year AP Capstone program. Students will develop their analytical skills by exploring appropriate themes and topics selected by the teachers and the students. Students will learn to synthesize information from multiple sources, develop their own perspectives in research-based essays, and design oral and visual representations. Students will be expected to complete an individual paper, presentation, and end-of-course exam as well as a team research project. These benchmark assignments will be submitted to the College Board and contribute to the final AP score. The second course needed to complete the AP Capstone program is *AP Research*.

AP RESEARCH (235)

Prerequisite: Successful completion of AP Seminar.

**5 Credits
Full Year
Grade 11-12**

Completion of a summer assignment may be required for this course. Please check with the instructor for further details.

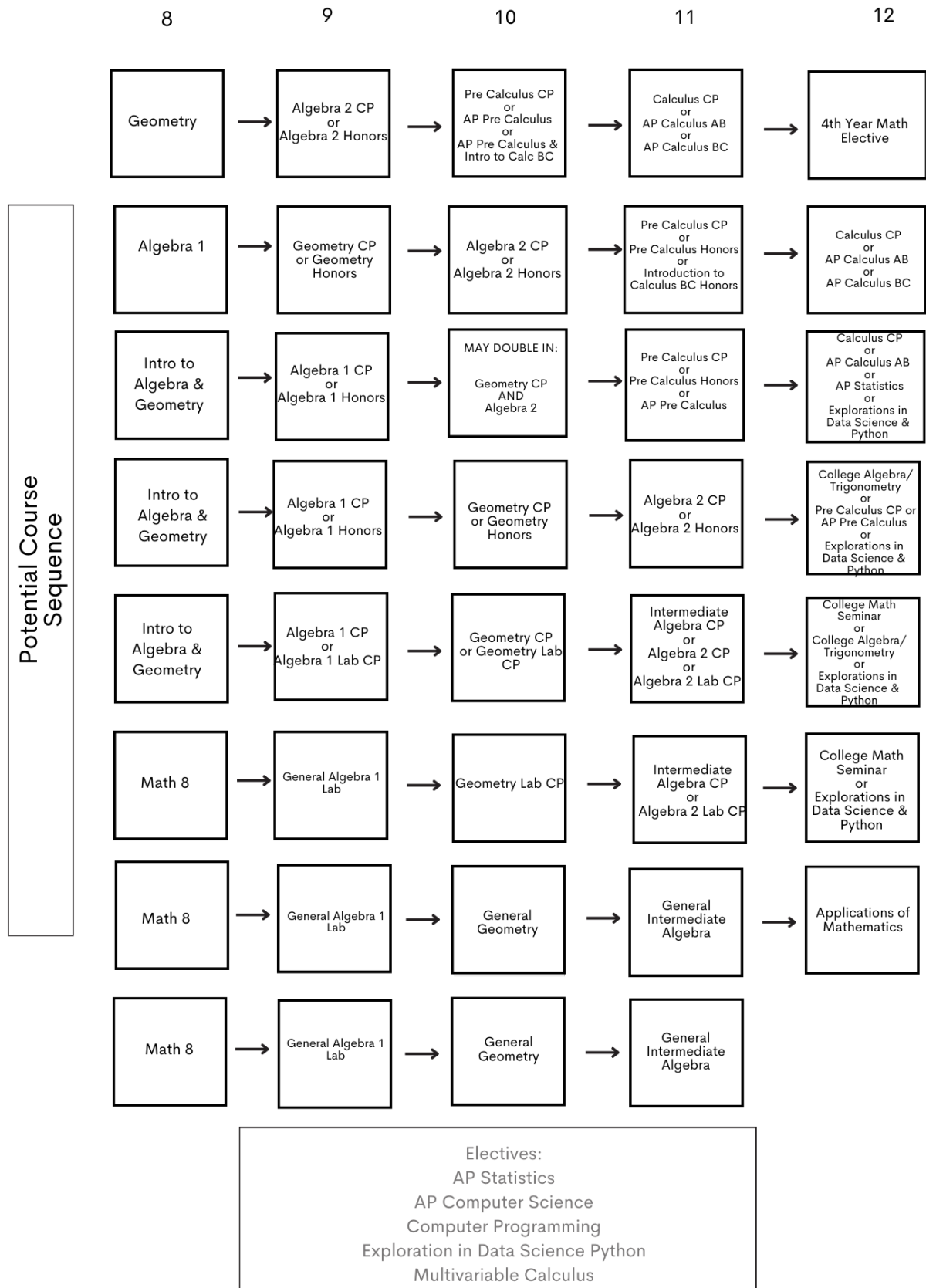
This full-year elective course will be the second class needed to complete the two-year AP Capstone program. This course will allow students to deeply explore an academic topic, problem, or issue of their own choice and interest. Through this investigation, students will cultivate the skills and discipline necessary to conduct independent research. Students will learn to design an effective and ethical plan of investigation, which utilizes various academic research methods. The students will demonstrate their understanding by constructing a 5,000-word academic thesis paper as well as present and perform an oral defense of their research methodology.

Mathematics Elective Courses

Semester Courses

MATH ENRICHMENT 12 (303) Prerequisite: Placement by the Math Department.	2.5 Credits Semester Grade 12
Math Enrichment 12 is a mandated course for those students who have not met the mathematics testing requirements for graduation set by the New Jersey Department of Education. The course reviews the concepts needed for students to be successful on the New Jersey Department of Education mandated assessments required for graduation.	

Course Sequence for Math



Performing Arts Department

The Performing Arts Department offers a full-range of courses to suit every student's interest and abilities in the study of this art form.

Courses provide opportunities for the study of Music in the areas of musical performance, music theory, music technology, and music appreciation. Ensemble courses such as Band, Orchestra, and Chorus are suitable for students at all levels of proficiency. Music students may study music in greater depth through the Music Theory and AP Music Theory programs. The New Jersey Student Learning Standards in the Visual and Performing Arts are an integral part of all courses offered in the Music Department.

There may be courses where students have proficiency in the content from prior or out-of-school programs or experiences. If a student seeks to enroll in a course and has not taken the required pre-requisite at Livingston High School, the student must demonstrate his/her comparable proficiencies to the department supervisor. Students may not enter into a course without successful completion of a required pre-requisite or department supervisor approval. Upon supervisor approval, students will be notified if they are permitted to enter into the requested course. While there are the requirements as per the NJDOE for graduation, please consult with your school counselor regarding your post-secondary program goals and specific requirements.

Please visit the LHS Music Department website for additional information: [click here](#).

Performing Arts Department Full Year Courses

CONCERT BAND (909) Prerequisite: Previous experience in playing a wind or percussion instrument. No audition is required for membership.	5 Credits Full Year Grade 9
This course is designed for the study and performance of music composed for wind and percussion instruments. A variety of band repertoire is performed stressing the basic knowledge and development of the rudiments of music and of ensemble performance skills with an emphasis on proper ensemble rehearsal technique. Students will develop the knowledge and skills that enable them to evaluate and demonstrate an appreciation of music as an art form. They also will develop the knowledge and skills that strengthen their aesthetic musical awareness that relate the study of music to the other arts and disciplines outside the arts. Students are required to attend small group lessons during non-instructional time. Students participating in this ensemble perform at scheduled concerts, festivals, and occasionally, at school or community functions. Due to the performance nature of the course, some activities occur outside the usual classroom time allowances.	

CONCERT BAND/CHORUS (909C) Prerequisite: Previous experience in playing a wind or percussion instrument. No audition is required for membership.	5 Credits Full Year Grade 9
Students who demonstrate proficiency in both instrumental and vocal performance may elect this option. An audition may be required in September for placement into this program. If accepted, students will attend Band and Chorus rehearsals on an alternating schedule and will be responsible for all course requirements in both areas, such as instrumental/vocal lessons, performance assessments, and concerts. If during the course of the year a student is not successfully performing	

at a high level in both ensembles, the student may be placed in one of the ensembles full time at the Directors' discretion. This option is not available to students chosen for Wind Symphony.

CONCERT CHORUS (912) Prerequisite: None. No audition is required for membership.	5 Credits Full Year Grades 9-12
<p>This course is designed for the study and performance of music composed for voices. A variety of vocal repertoire is examined, stressing the knowledge and development of the rudiments of music and ensemble performance skills. Students develop skills that enable them to evaluate and demonstrate an appreciation for music as an art form. Participation in this course will strengthen aesthetic musical awareness and relate the study of music to other disciplines. Students are required to attend small group lessons during non-instructional time. Students participating in this ensemble perform at scheduled concerts, festivals, and occasionally, at school or community functions. Due to the performance nature of the course, some activities occur outside the regularly scheduled classroom time.</p>	

INDEPENDENT STUDY IN PERFORMING ARTS (838, 839) Prerequisite: Completion of Level 1 and 2 of the specific discipline requested. Candidates must complete an application and obtain approval by the Supervisor of Visual and Performing Arts.	2.5 or 5 Credits Semester or Full Year Grades 11-12
<p>This course is offered to students who have successfully completed AP Music Theory, Music Technology 1 and Music Technology 2, or Theatre Arts 1 and 2 courses with a minimum of a "B" average in the selected area of study.</p> <p>The student must contact a sponsoring teacher in the specific discipline requested. Prior to the approval of this study, the student, with the input from the sponsoring teacher, must also complete an application. The application outlines the scope and sequence, benchmarks, specific works to be completed, as well as assessments. Admission to the program must be approved by the sponsoring teacher, the Supervisor of Visual and Performing Arts, and an Assistant Principal. Students can obtain the application for the Independent Study from their school counselor. The deadline for students to complete the application for an Independent Study is the last day of school in June.</p>	

MUSIC TECHNOLOGY 1 (916) Prerequisite: None.	5 Credits Full Year Grades 9-12
<p>This course is designed to provide students with hands-on experiences in the production and recording of music and other audio sources. In the classroom and the recording studio, students will develop a working knowledge of Pro Tools and other computer software and applications used in the industry. MIDI (Musical Instrument Digital Interface) is taught for use with electronic instruments and synthesizers. The principles of audio recording and multi-track production are also taught through a sequence of projects and other hands-on activities. Students will be expected to demonstrate the ability to master and utilize technology used in the recording studio and throughout the industry.</p>	

MUSIC TECHNOLOGY 2 (917) Prerequisite: Successful completion of Music Technology 1 or demonstration of comparable proficiencies and a departmental interview.	5 Credits Full Year Grades 10-12
<p>This course is designed for advanced students in the field of Music Technology. The course provides the opportunity for experienced students of Music Technology to broaden their knowledge and skills in music and audio production. Students will have the opportunity in the recording studio to produce musical recordings and sound for television and film using software and hardware representative of the industry.</p>	

MUSIC THEORY (915) Prerequisite: None.	5 Credits Full Year Grades 9-12
<p>Music Theory is designed for the study of principles used in the creation and performance of music. Students will acquire knowledge of the rudiments of music, particularly in the study of melody and harmony. The development of aural skills, such as solfege (sight singing), aural identification of scales, intervals and chords, and melodic and rhythmic dictation, is stressed in this course. This course begins with an examination of the fundamental elements of music and, in a sequential manner, investigates melody and harmony from intervals to four-part writing. Ear training is developed and mastered through exercises in solfege and in melodic and rhythmic dictation. The course culminates with projects in musical composition utilizing these elements. This course is also highly recommended for students who aspire to go on to the Advanced Placement (AP) Music Theory course.</p>	

AP MUSIC THEORY (950) Prerequisite: AP Music Theory application is required.	5 Credits Full Year Grades 10-12
<p>Completion of a summer assignment is required for this course.</p> <p>Successful completion of Music Theory 1 is recommended prior to enrolling in AP Music Theory. Music Theory 1 and AP Music Theory are sequential courses and success at the AP level is predicated on mastery of Music Theory 1 content and knowledge.</p> <p>This course is designed to prepare students who are potential college music majors/minors and for the Advanced Placement examination in Music Theory. The AP Music Theory course corresponds to a typical introductory college Music Theory course that covers topics such as musicianship, theory, musical materials, and procedures. Students will be engaged in the advanced study of harmony, composition, musical form and analysis, solfege, dictation (rhythmic, melodic, and harmonic), and other aural skills. Through the course, students will develop the ability to recognize, understand, and describe basic materials and processes of tonal music that are heard or presented in a score. <i>It is expected that all students take the AP Music Theory exam in May.</i></p>	

ORCHESTRA/CHORUS (914 C) Prerequisite: Previous experience in playing a string instrument. No audition is required for membership.	5 Credits Full Year Grades 9-12
<p>Students who demonstrate proficiency in both instrumental and vocal performance may elect this option. An audition may be required in September for placement into this program. If accepted,</p>	

students will attend Orchestra and Chorus rehearsals on an alternating schedule and will be responsible for all course requirements in both areas, such as instrumental/vocal lessons, performance assessments, and concerts. If during the course of the year a student is not successfully performing at a high level in both ensembles, the student may be placed in one of the ensembles full time at the Directors' discretion.

SPEECH AND DRAMA (136) Prerequisite: None.	5 Credits Full Year Grades 9-12
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This project-based course provides students of all skill levels with the opportunity to examine the process of oral communication and to refine their public speaking skills. All activities are designed to build a supportive environment where students can increase their comfort speaking before a group and develop practical techniques with real-world applications. This course will emphasize logic and reasoning, research techniques, collaboration, evaluation and creative thinking skills. Major projects include writing and delivering speeches on various topics and producing a one-act play as a class.

STRING ORCHESTRA (914) Prerequisite: Previous experience in playing a string instrument. No audition is required for membership.	5 Credits Full Year Grades 9-12
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This course is designed for the study and performance of music composed for string instruments. A variety of string repertoire is performed stressing the knowledge and development of the rudiments of music and ensemble performance skills. Students will develop the knowledge and skills that enable them to evaluate and demonstrate an appreciation for music as an art form. They also will develop the knowledge and skills that strengthen their aesthetic musical awareness and that relate the study of music to the other arts and disciplines outside the arts. Students are required to attend small group lessons during non-instructional time. Seating in the Orchestra is determined by audition. Students participating in this ensemble perform at scheduled concerts, festivals, and occasionally, at school or community functions. Due to the performance nature of the course, some activities occur outside the usual classroom time allowances.

SYMPHONIC BAND (911) Prerequisite: Previous experience in playing a wind or percussion instrument. No audition is required for membership.	5 Credits Full Year Grades 10-12
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This course is designed for the study and performance of music composed for wind and percussion instruments. A variety of band repertoire is performed stressing the knowledge and development of the rudiments of music and of ensemble performance skills. Students will develop the knowledge and skills that enable them to evaluate and demonstrate an appreciation of music as an art form. They also will develop the knowledge and skills that strengthen their aesthetic musical awareness that relate the study of music to the other arts and disciplines outside the arts. Students are required to attend small group lessons during non-instructional time. Students participating in this ensemble perform at scheduled concerts, festivals, and occasionally, at school or community functions. Due to the performance nature of the course, some activities occur outside the usual classroom time allowances.

SYMPHONIC BAND/CHORUS (911C) Prerequisite: Previous experience in playing a wind or percussion instrument. No audition is required for membership.	5 Credits Full Year Grades 10-12
<p>Students who demonstrate proficiency in both instrumental and vocal performance may elect this option. An audition may be required in September for placement into this program. If accepted, students will attend Band and Chorus rehearsals on an alternating schedule and will be responsible for all course requirements in both areas, such as instrumental/vocal lessons, performance assessments, and concerts. If during the course of the year a student is not successfully performing at a high level in both ensembles, the student may be placed in one of the ensembles full time at the Directors' discretion. This option is not available to students chosen for Wind Symphony.</p>	

THEATRE ARTS 1 (930) Prerequisite: None	5 Credits Full Year Grades 9-12
<p>This full-year class is a survey course that exposes students to various elements of theatrical productions. Students will have the opportunity to explore on and off-stage components of theatre, including acting, directing, set and costume design, and the ways in which these pieces compliment one another to make a cohesive performance.</p>	

THEATRE ARTS 2 (931) Prerequisite: Successful completion of Theatre Arts 1 or demonstration of comparable proficiencies and a departmental interview.	5 Credits Full Year Grades 10-12
<p>This full-year course expands on the concepts introduced in Theatre Arts 1 , which is a prerequisite. In Theatre Arts 2, students will gain experience memorizing, performing, critiquing and collaborating theatrically. Students will study different styles of theatre throughout history, in addition to contemporary scene study, stage combat, the works of William Shakespeare, short and long-form improvisation, and audition techniques. Students will also observe and critique several live and/or recorded theatrical productions. All students will leave this course with audition material, enhanced performance skills, and a deeper appreciation for theatre arts.</p>	

WIND SYMPHONY (910) Prerequisite: Previous experience in playing a wind or percussion instrument. Students are selected for this class by audition.	5 Credits Full Year Grades 9-12
<p>This course is designed for the study and performance of advanced music composed and scored for the Wind Ensemble. The instrumentation of the ensemble is identical to that of a symphonic band, but with fewer players, frequently only one or two per part. Students will develop the knowledge and skills that enable them to evaluate and demonstrate an appreciation of music as an art form. They also will develop the knowledge and skills that strengthen their aesthetic musical awareness and knowledge that relates the study of music to the other arts and disciplines outside the arts. Students are required to attend small group lessons during non-instructional time. Seating in the ensemble is determined by the initial audition. Students participating in this ensemble perform at scheduled concerts, festivals, and occasionally, at school or community functions. Due to the performance nature of the course, some activities occur outside the usual classroom time allowance.</p>	

Performing Arts Department Semester Courses

AMERICAN POPULAR MUSIC (913) Prerequisite: None.	2.5 Credits Semester Grades 9-12
<p>This course is designed to provide students with knowledge and perspective of the development of American Music from the early 20th Century to the present. Students will develop an awareness of various musical styles and an ability to appreciate music as an art form. Students also will develop an understanding of the influence social and political issues have had and continue to have on American composers and performers. The curriculum traces the development of popular music through the study of the various styles that contributed to the creation and growth of rock and roll and other musical genres.</p>	

BEGINNER GUITAR (918) Prerequisite: None.	2.5 Credits Semester Grades 9-12
<p>Beginner Guitar is for students with little to no previous experience playing guitar. This course is designed to provide students the opportunity to broaden and enrich their musical studies through guitar performance. Students will explore strumming and fingerpicking patterns, as well as other playing techniques, chords, songs and improvisation. Through a variety of musical experiences, students will be equipped with a strong guitar foundation, enabling them to continue their studies if so desired. Guitars are provided for in-class use.</p>	

BEGINNER PIANO (919) Prerequisite: None.	2.5 Credits Semester Grades 9-12
<p>Beginner Piano is designed to provide students with the opportunity to learn how to play piano individually, as well as accompanying an ensemble or soloist. Playing the piano stimulates both sides of the brain, improves hand/eye coordination and listening skills. While learning to play the piano, students will explore the basics of music theory and learn to read music notation. The curriculum will explore piano performance, theory, and technique.</p>	

INDEPENDENT STUDY IN PERFORMING ARTS (838, 839) Prerequisite: Completion of Level 1 and 2 of the specific discipline requested. Candidates must complete an application and obtain approval by the Supervisor of Visual and Performing Arts.	2.5 or 5 Credits Semester or Full Year Grades 11-12
<p>This course is offered to students who have successfully completed AP Music Theory, Music Technology 1 and Music Technology 2, or Theatre Arts 1 and 2 courses with a minimum of a "B" average in the selected area of study.</p>	

The student must contact a sponsoring teacher in the specific discipline requested. Prior to the approval of this study, the student, with the input from the sponsoring teacher, must also complete an application. The application outlines the scope and sequence, benchmarks, specific works to be completed, as well as assessments. Admission to the program must be approved by the sponsoring teacher, the Supervisor of Visual and Performing Arts, and an Assistant Principal. Students can obtain the application for the Independent Study from their school counselor. The deadline for students to complete the application for an Independent Study is the last day of school in June.

Music Department Co-Curricular Activities

Jazz Ensembles, Notations, Chamber Singers, and Chamber Orchestra are offered to qualified students who are enrolled in corresponding courses (Wind Symphony, Symphonic Band, Concert Band, Chorus, and Orchestra) or any other music course.

When the co-curricular ensemble has a fixed number or limited/balanced seating, priority will be given to qualified students enrolled in the corresponding class ensemble. Please note: Jazz Ensemble seating for piano, bass, and guitar will be open to all students. In all cases, an audition may be required for participation and seating in co-curricular activities.

Theatre Arts Pathway

Students interested in completing the TAP! Pathway will successfully complete the following requirements:

Requirement A

All three to be taken over the course of four years
The following three courses must be successfully completed:
Speech and Drama
Theatre Arts 1
Stagecraft 1

Requirement B

Two to be taken over the course of four years
Choose two additional courses and successfully complete:
Chorus
Creative Writing
Dance (One semester course to replace PD)
Mural Painting
Music Theory (CP or AP)
Piano
Public Speaking and Debate
Stagecraft 2
Theatre Arts 2

Requirement C

Over the course of four years
Participation in the LHS Fall Drama and/or the Spring Musical -
At least three of the eight productions during the student's high school years

***All three requirements (A, B, and C) must be fulfilled in order to successfully complete the TAP! Pathway and receive a certificate.**

Science Department

The need for scientific literacy in today's increasingly technological world has impacted fundamental reforms in how science is taught, placing a sincere focus on the inquiry and design process. Presidential appeals for excellence in Science, combined with expressions of concern from science educators, have led to national, state, and local initiatives. In 2014, New Jersey adopted the *Next Generation Science Standards* with an implementation deadline of September 2016 for the secondary level. Based on the *Framework for K-12 Science Education*, the New Jersey Student Learning Standards - Science (i.e., *Next Generation Science Standards*) specify that each performance expectation must combine a relevant practice of science or engineering, with a core disciplinary idea and crosscutting concept, appropriate for students of the designated grade level. That guideline is perhaps the most significant way in which the NJSLS - Science differs from prior standards documents. While these are the requirements as per the NJDOE for graduation, please consult with your school counselor regarding your post-secondary program goals and specific requirements.

Disciplinary Core Ideas provide a scope and sequence for learning about the most important scientific concepts in one of four domains: the physical sciences; the life sciences; the earth and space sciences; and engineering, technology and applications of science. The Framework identifies seven crosscutting concepts that bridge disciplinary boundaries, uniting core ideas throughout the fields of science and engineering. The Framework uses the term "practices," rather than "science processes" or "inquiry" skills for a specific reason: We use the term "practices" instead of a term such as "skills" to emphasize that engaging in scientific investigation requires not only skill, but also knowledge that is specific to each practice. (NRC Framework, 2012, p. 30)

Engaging in the practices of science helps students understand how scientific knowledge develops; such direct involvement gives them an appreciation of the wide range of approaches that are used to investigate, model, and explain the world. Engaging in the practices of engineering, likewise, helps students understand the work of engineers, as well as the links between engineering and science. The actual doing of science or engineering can also pique students' curiosity, capture their interest, and motivate their continued study; the insights thus gained help them recognize that the work of scientists and engineers is a creative endeavor—one that has deeply affected the world in which they live. Students may then recognize that science and engineering can contribute to meeting many of the major challenges that confront society today, such as generating sufficient energy, preventing and treating disease, maintaining supplies of fresh water and food, and addressing climate change.

The study of science has many components which shape how instruction is provided. Students must know and be able to work with key scientific concepts. They must also be able to apply their knowledge to novel scenarios which ask students to address certain real-world issues by hypothesizing possible solutions, researching and collecting data, evaluating this data and drawing conclusions. Students must now be able to express their knowledge in both written and oral forms. Finally, students must be capable of finding information using various technological resources.

The New Jersey Department of Education has implemented a comprehensive science assessment given in the 11th grade, which will assess students' knowledge and skills as addressed in the NJSLS-Science. The graduation requirements for science include one year of laboratory Biology, one year of laboratory Chemistry/Physics/Environmental Science, and a third year of laboratory science. To meet these requirements, students will select an appropriate level of Biology in 9th grade followed by their choice of two of the following courses:

- Chemistry

- Physics
- Environmental Science or Natural Resources and Ecology
- Introduction to Chemistry and Physics

The NJ Student Learning Assessment for Science will be administered in 11th grade in order to monitor students' progress in meeting these standards.

Advanced Placement classes, as well as other science electives, can be taken starting in Grade 10. Students interested in careers in Biotechnology, Health Sciences, or Environmental Sustainability can also select courses in one of the new Career Pathways. Finally, students in 9th grade who are interested in conducting authentic research can apply for the three-year Science Research Program. Science course offerings aim to provide students with an impressive record of lab sciences for college admissions officers to consider, while, at the same time, affording students the flexibility to choose a course of study that meets their own interests and fits with their career plans.

There can be courses where students may have proficiency in the content from prior or out-of-school programs or experiences. If a student seeks to enroll in a course and has not taken the required pre-requisite at Livingston High School, the student must demonstrate his/her comparable proficiencies to the department supervisor. Students may not enter into a course without successful completion of a required pre-requisite or department supervisor approval. Upon supervisor approval, students will be notified if they are permitted to enter into the requested course.

Please visit the LHS Science Department website for additional information: [click here](#).

Science Department Core Courses

GENERAL BIOLOGY (474) Prerequisite: This course is assigned at the recommendation of the Child Study Team and is a Resource Center Level course.	6 Credits Full Year Grade 9
This course is designed to fulfill the New Jersey State Graduation requirement for science. The curriculum includes topics such as: skills and tools of the biological scientist, basic chemistry and biochemistry, cellular organization and processes, molecular processes, genetics and genetic technology, evolution, ecology, classification and the physiology of the human body. The goals and objectives identified in each student's IEP will be addressed throughout this course.	

BIOLOGY CP (422) Prerequisite: None.	6 Credits Full Year Grade 9
Biology is the study of life. Biology CP is designed to provide students with the scientific principles, concepts and methodologies required to understand the relationships between the structure and function of living things. Students will incorporate prior knowledge to build an understanding of how structure leads to function in living things. This course will explore the science and societal connections of humans and the interaction with the environment. Students will be engaged by authentic, real-life scientific phenomena. This course provides students with the sufficient background in biology necessary to take future electives. The curriculum will address the needs of all learners through an interesting, problem-based approach to learning about living things.	

BIOLOGY HONORS (410) Prerequisite: None.	6 Credits Full Year Grade 9
Completion of a summer assignment is required for this course. Biology Honors is designed to provide the highly motivated student with the scientific principles, concepts, and methodologies required to understand the relationships between the structure and function of living things. This curriculum includes topics such as origins of life, molecular processes, genetics and genetic technology, evolution, ecology, human impact, and the study of select human body systems. This course moves at a faster pace than Biology College Prep (422) and covers a greater depth of information requiring students to have excellent work habits and independent study skills. This course is highly recommended for those wishing to take AP Biology.	

GENERAL PHYSICAL SCIENCE (475) Prerequisite: This course is assigned at the recommendation of the Child Study Team and is a Resource Center Level course.	6 Credits Full Year Grades 10-12
The General Physical Science course has been designed to develop an understanding of the relationship between matter and energy. This course is not intended to include all of the concepts taught in physics and chemistry, but provides a solid foundation in the major topics taught in both courses. Goals of this course include assisting students to become better problem solvers while they learn relationships and patterns among events and processes in the physical world. The topics covered in this course include the interactions between particles and substance, nuclear chemistry, waves and mechanics. Throughout the course students learn to engage in and interact with concepts in a way that is contextualized using real issues in their lives and in society as a whole.	

INTRODUCTION TO CHEMISTRY AND PHYSICS CP (441) Prerequisite: Successful completion of Biology.	6 Credits Full Year Grades 10-12
The Introduction to Chemistry and Physics course has been designed to develop an understanding of the relationship between matter and energy. This course is not intended to include all of the concepts taught in full-year chemistry and physics courses, but provides a solid foundation in the major topic standards taught in both. Goals of this course include assisting students to investigate the relationships and patterns among events and processes in the physical world. Chemistry topics include: techniques of measurement, the structure of the atom, isotopes, ions, bonding, classification of matter, the periodic table, properties of metals and nonmetals, and formula writing. The physics topics include: speed, velocity, acceleration, force and Newton's Laws of Motion, work and power, energy and electricity. Students having taken a full-year course in either Chemistry or Physics <i>are not eligible</i> to register for this course.	

CHEMISTRY CP (432) Prerequisite: Successful completion of Biology, Algebra 1.	6 Credits Full Year Grades 10-12
Chemistry CP is a science course designed to provide motivated students with an understanding of the important role chemistry plays in their lives. It will prepare them to enter a first-year college chemistry course with confidence. This course challenges students to apply their understanding of chemistry to	

everyday situations. The curriculum includes topics such as energy, structure and interactions of matter, nuclear processes, chemical reactions, stoichiometry, thermochemistry, states of matter, solutions, and acids and bases. It will address the needs of all learners through an interesting, problem-based approach to learning about the substances that make up our world. The laboratory portion of Chemistry CP is designed to give students hands-on experiences to reinforce concepts introduced in class. Mathematical skills required for this class include an understanding of ratios, percent and solving problems by substitution.

CHEMISTRY HONORS (421)

Prerequisite: Successful completion of Biology, Algebra 1.

6 Credits
Full Year
Grade 10-12

Completion of a summer assignment is required for this course.

Chemistry Honors is designed to provide the highly motivated, college-bound student with an understanding of inorganic chemistry. Topics include: properties of matter and change; atomic theory, electron structure and periodicity; chemical bonding and reactions; stoichiometry; states of matter; solutions; thermochemistry; rates and equilibrium; acids, bases and salts; and redox reactions. This course moves at a faster pace than Chemistry CP (432) and covers a greater depth of information, requiring students to have excellent work habits and independent study skills. While a minimum grade of "B" or higher in 8th grade Algebra 1 or Algebra 1 Honors is a good predictor for success in this course, it is strongly recommended that students are taking Algebra 2 as a corequisite. This challenging course is highly recommended for those students interested in Advanced Placement Chemistry.

GENERAL ENVIRONMENTAL SCIENCE (471)

Prerequisite: This course is assigned at the recommendation of the Child Study Team and is a Resource Center Level course.

6 Credits
Full Year
Grades 10-12

General Environmental Science is a resource center replacement course. This course fulfills one year of the science requirement for high school graduation. General Environmental Science parallels the regular education Environmental Science course as students study the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them. The curriculum includes topics such as: the scientific method, introduction to earth processes, ecology, populations, land, air and water quality and pollution, climate change, biodiversity and endangered species, mineral and energy resources, our health and our future, and legal aspects of conservation. The goals and objectives identified in each student's IEP will be addressed throughout this course.

ENVIRONMENTAL SCIENCE CP (412)

Prerequisite: Successful completion of Biology.

6 Credits
Full Year
Grades 10-12

Environmental Science CP is designed to provide 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 human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing

them. The curriculum includes topics such as an introduction to earth processes, ecology, populations, land, air and water quality and pollution, climate change, biodiversity and endangered species, mineral and energy resources, soil and agriculture, our health and our future, and environmental regulations. This curriculum will address the needs of all learners through an interesting, problem-based approach to learning about human impact on the environment.

ENVIRONMENTAL SCIENCE HONORS (411)

Prerequisite: Successful completion of Biology.

**6 Credits
Full Year
Grades 10-12**

Completion of a summer assignment is required for this course.

Environmental Science Honors is designed to provide the highly motivated student with a thorough knowledge of environmental issues. Students will analyze environmental problems, evaluate the ecological, economic, and environmental impacts of these problems, and examine solutions for reducing these impacts through class discussions, and both field and lab work. Units examine how earth systems support life, how humans became the dominant species, how human population growth impacts earth systems, and how we can be more sustainable given global change. Specific topics include earth science systems, ecology and biodiversity, human population growth, land use, food and agricultural practices, energy resources, air and water quality, and climate change. In addition, important environmental legislation, environmental disasters, and environmental justice will be woven throughout the course along with science practices like data analysis and writing claims with evidence and reasoning. This course covers a greater depth of information than Environmental Science CP (412) and students will be required to demonstrate knowledge and to apply that knowledge on both formative and summative assessments. This means they will be held to a higher standard in terms of course rigor and expectations as compared to Environmental Science CP. Students should be organized and able to manage their time as they will have to juggle assignments from time to time with overlapping due dates. A minimum grade of “B” or higher in Biology CP and Chemistry CP or a grade of “C” in Biology Honors and Chemistry Honors are good predictors for success in this course as students will be expected to incorporate their knowledge of both disciplines with the analysis of various environmental issues.

AP ENVIRONMENTAL SCIENCE (454)

Prerequisite: Successful completion of Biology, Algebra 1 and an AP Science application is required.

**6 Credits
Full Year
Grades 10-12**

Completion of a summer assignment is required for this course.

AP Environmental Science is an advanced level science course, incorporating field and lab work, that is designed to provide a student with a thorough knowledge of environmental issues.

In this course, students will analyze environmental problems, evaluate the ecological, economic, and environmental impacts of these problems, and propose solutions for reducing these impacts. Units examine how earth systems support life, how humans became the dominant species, how human population growth impacts earth systems, and how we can be more sustainable given global change. Specific topics include earth systems, ecology and biodiversity, human population growth, land use, food and agricultural practices, energy resources, air and water quality, and climate change.

All AP units of study include math-based logic calculations, data analysis, and critical reading, related to environmental issues, as well as the examination of important environmental legislation, environmental disasters, and environmental justice issues that disproportionately impact vulnerable populations.

Students entering this course should have strong organization and time management skills and have received a minimum grade of “B” or higher in Biology CP and Algebra 1 to be most successful. It is expected that all AP Environmental Science students take the AP Environmental Science Exam in May.

NATURAL RESOURCES AND ECOLOGY (445) (formerly known as Sustainability Science 1)

Prerequisite: Successful completion of Biology

**6 Credits
Full Year
Grades 10-12**

Natural Resources and Ecology (NRE) is a full year lab course devoted to applying science and engineering practices to managing our natural resources from an ecological perspective. NRE is one of nine courses offered by the Curriculum for Agricultural Science Education (CASE), a national program devoted to providing career-based curricula in agricultural science education, especially in natural resources management. **Successful completion of an end-of-year exam can earn 3 college credits from Rutgers University as a substitute for a Natural Resources Course offered through the School of Environmental and Biological Sciences (SEBS).** This course represents the first course in the Sustainability Pathway at LHS, and an alternative to Environmental Science CP that will fulfill necessary NJ state science standards.

PHYSICS CP (442)

Prerequisite: Successful completion of Biology, Algebra 1, Geometry.

**6 Credits
Full Year
Grades 10-12**

This lab-based course has been structured to provide students with the opportunity to explore physics phenomena relevant to their lives. A strong conceptual understanding of the world will be developed through varied modeling and inquiry strategies that include mathematical models. Students explore topics such as motion, forces, momentum, work & energy, electricity, magnetism, mechanical waves, and optics by participating in observational experiments that are based on the science and engineering practices based on the NGSS. Throughout the year, students will also partake in engineering design projects to showcase their understanding of concepts. A comfortable understanding of Algebra I is strongly recommended for this course. Modeling and inquiry strategies aid students in developing strong conceptual understanding, a basis for mathematical models and application of concepts.

PLEASE NOTE: Students taking Physics over the summer for advancement must declare which future Physics elective(s) they are interested in taking. For students interested in either of the AP Physics 1 or AP Physics 2 electives, the CP Physics midterm and final exam would be given. For students pursuing either of the AP Physics C options, the AP Physics 1 midterm and final exams would be given. Students interested in this option should obtain an AP Physics 1 prep book and use it to guide their study.

AP PHYSICS 1 (457)

Prerequisite: Successful completion of Biology, Algebra 1 and Geometry and an AP Science application is required.

Prerequisite/Corequisite: Algebra 2.

**6 Credits
Full Year
Grades 10-12**

Completion of a summer assignment is required for this course.

This course follows the curriculum set forth by the College Board and is equivalent to a first semester algebra-based Physics course. Students will require a strong algebraic background and knowledge of right triangle trigonometry to be successful in this course. A solid background (minimum grade of “B”)

in Algebra 1 Honors, Geometry Honors, and Algebra 2 Honors are good predictors for success in the course. Topics of study include kinematics, Newton's Laws of motion, uniform circular motion, gravitation, conservation laws including energy and momentum, rotation, and oscillations. There will be a focus on inquiry-based laboratory activities which challenge students to design and carry out experiments targeting certain learning objectives. Students will learn to coherently and logically show their problem solving process starting with fundamental physics principles. They will also construct explanations of various phenomena based on evidence. After the AP exam in May, students will collaborate on projects and/or various topics in physics. Students intending to take AP Physics 2, AP Physics C: Mechanics, and/or AP Physics C: E&M must have first taken AP Physics 1. It is expected that all students take the AP Physics 1 exam in May.

Please note that students who choose to drop AP Physics 1 will be moved into CP Physics (unless the student chooses to drop Physics entirely). It is important to note that AP Physics 1 and CP Physics do not follow the same scope and sequence. CP Physics provides a survey of Physics concepts while AP Physics 1 focuses on fewer concepts but in more detail. Students who drop into CP Physics may be required to complete an abbreviated make-up assignment in order to attain the necessary concepts students will need for success in future units.

PLEASE NOTE: Students taking Physics over the summer for advancement must declare which future Physics elective(s) they are interested in taking. For students interested in either of the AP Physics 1 or AP Physics 2 electives, the CP Physics midterm and final exam would be given. For students pursuing either of the AP Physics C options, the AP Physics 1 midterm and final exams would be given. Students interested in this option should obtain an AP Physics 1 prep book and use it to guide their study.

Science Elective Courses

Full Year Courses

AP BIOLOGY (450)

Prerequisite: Successful completion of Biology and an AP Science application is required.

Prerequisite/Corequisite: Chemistry or Chemistry Honors.

6 Credits
Full Year
Grades 10-12

Completion of a summer assignment is required for this course.

Advanced Placement Biology is designed to be the equivalent of a college introductory biology course, usually taken by biology majors during their first year. This course is designed to provide students with the conceptual framework, factual knowledge, and analytical skills necessary to deal critically with the rapidly changing science of biology. The College Board based curriculum includes topics such as general chemistry, biochemistry, molecular genetics, origin of life, evolution, animal behavior, cellular biology, cell transport, microbiology, nervous, immune and endocrine systems, cell energetics and cellular respiration, photosynthesis, cellular reproduction, Mendelian genetics, population genetics, ecology, and genetic engineering. A minimum grade of "B" or higher in Biology Honors is a good predictor for success in this course. Though a student could be successful in AP Biology while concurrently taking Chemistry, it is **highly recommended** that students have a first-year Chemistry course **prior** to registering for AP Biology. It is expected that all AP Biology students take the AP Biology Exam in May.

BIOTECHNOLOGY 1 (447) Prerequisite: Successful completion of Biology, Chemistry.	6 Credits Full Year Grades 11-12
<p>Biotechnology is one of the fastest growing industries in the nation. The applications of biotechnology can be seen in various industries, from agriculture and environmental protection, to forensics, engineering, medicine, and business lifecycle management. This course is designed with a lab-focused lens and offers students an introduction to many of the techniques which are used in scientific research labs. The curriculum includes microbiology, microscopy, pipetting, electrophoresis, and other research assays with a strong focus on scientific communication and literacy. The lab skills learned in this course provide a strong foundation to those looking to continue on to science-focused studies in college.</p> <p>This course is required for all students participating in the Biotechnology Pathway at Livingston High School; however, all students can take this introductory course as an elective. A minimum grade of “C” in Biology and Chemistry, as well as a strong work ethic are good predictors for success in this course. Students can elect to take the NOCTI (National Occupational Competency Testing Institute) examination for this course. If they pass the NOCTI exam, they will then receive industry accreditation and documentation that will benefit them when they try to secure positions in laboratory or pharmacological related careers.</p>	

BIOTECHNOLOGY 2 (449) Prerequisite: Successful completion of Biotechnology 1.	6 Credits Full Year Grade 12
<p>This course is designed to build upon the strong laboratory foundation fostered in Biotechnology 1 and provide insight to the diversified applications of the biotechnology industry. Students will complete upper level labs associated with agriculture and pharmacological development, as well as complete independent research on a topic of their choice. Students will foster collaboration with industry and academia. Students will also develop their ability to communicate their findings through science research paper development, presentations, and poster development sessions. Challenges for science fair and modeling competitions will also be explored.</p> <p>This course is designed to be the capstone experience within the Biotechnology Pathway. A minimum grade of “C” in Biotechnology 1 and a passing score on the NOCTI Biotechnology assessment are good predictors for success in this course.</p>	

AP CHEMISTRY (451) Prerequisite: Successful completion of Biology, Chemistry, Algebra 1 and an AP Science application is required. Prerequisite/Corequisite: Algebra 2.	6 Credits Full Year Grades 11-12
<p>Completion of a summer assignment is required for this course.</p> <p>Advanced Placement Chemistry is designed to be the equivalent of a college introductory chemistry course. Students in this course attain a depth of understanding of fundamentals and competence in dealing with chemical problems; chemical periodicity viewed by quantum mechanics; stoichiometric calculations involved with chemical reactions; energy involved in chemical reactions; behavior of ideal and real gasses based on the Kinetic Molecular Theory; physical and chemical properties of liquids and solids determined by molecular motion and intermolecular bonding; chemical kinetics; equilibrium; thermodynamics; acids, bases, and salts, including buffer solutions; and electrochemistry. A minimum</p>	

grade of “B” or higher in Chemistry Honors is a good predictor for success in this course. It is expected that all students take the AP Chemistry exam in May.

DYNAMICS OF HEALTHCARE IN SOCIETY (448)

Prerequisite: Successful completion of Biology and Algebra 1 with minimum grade of C or higher in each course (Rutgers Dual Enrollment Requirement)

Pre/Corequisite: Chemistry Honors or Chemistry CP

**6 Credits
Full Year
Grades 10-12**

Dynamics of the Healthcare in Society provides an orientation to health care services and their delivery. It presents an interdisciplinary perspective, focusing on process skills such as critical thinking, ethical reasoning, effective communication and ways to continue independent learning throughout life. Students will learn how all health care providers acquire professional competency in dealing with the issues and problems they face when caring for the hospitalized patient as well as the role they play as informed consumers. Students will familiarize themselves with the multitude of careers available in the US healthcare system along with the educational and credentialing requirements of select professions. Ethics, legal issues, and professionalism will be stressed through case studies of patient privacy and various other ethical dilemmas faced by medical professionals. Public Health responsibilities and Patient Advocacy roles will be discussed along with the Basic Anatomy and Physiology needed to provide basic patient care (Vital Signs and Suturing). Other important topics include Infection Control and Safety Measures in a healthcare setting along with Health Care Economics.

This course is required for all students participating in the dual credit Rutgers School of Health Professions Health Science Careers program (RHSP) pathway at Livingston High School.

Students can elect to take the Rutgers examination for this course provided that they maintain a 70% or better cumulative average at the exam registration cutoff. If they pass the Rutgers exam with a 70% or better, they are eligible to receive three Rutgers credits. *This is contingent on them taking and passing one additional Rutgers Health Science Professions course, which would be Anatomy and Physiology 1.* The Rutgers School of Health and Professions exams grade will be the grade listed on the Rutgers SHP transcript.

Note: This course is available to all students as an elective; however, it is a requirement for those students looking to complete the Health Sciences Pathway.

FORENSIC SCIENCE (446)

Prerequisite: Successful completion of Biology, Algebra 1.

**6 Credits
Full Year
Grades 10-12**

Forensic Science is designed for the well-motivated student with an interest in science as it applies to the legal system. Students will integrate knowledge from the fields of physical science, biology and mathematics to analyze crime scene evidence. Topics include analysis of DNA, fingerprints, hairs, fibers, entomology, and blood spatter. Class time will be devoted to mastering techniques in evidence evaluation. Students will be required to identify and document evidence in mock crime scenes, analyze evidence and communicate analysis in a written format. The culminating final project is a choice assignment with many different possible assignments to choose from. A minimum grade of “C” in Biology CP and a strong work ethic are good predictors for success in this course.

THE HUMAN BODY (435) Prerequisite: Successful completion of Biology.	6 Credits Full Year Grades 10-12
<p>The Human Body has been designed to present an anatomical and physiological study of the human systems with an emphasis on homeostasis and the disruption of homeostasis by disease. Students will investigate how the structures of individual tissues come together to make a fully functional organ system. Students will be exposed and get an introduction to the various different body systems and will deepen their understanding of them through a year-long series of dissections; starting first at the organ level, then culminating in a full organism dissection where they can investigate the interconnectivity of the body systems. The course is divided into three major themes; protection, movement and support, and transport. This course will also look into cancer and various other diseases that can come about when systems become disrupted. This will be a unifying concept throughout the entire course, enabling students to have a grasp of different diseases they might interact with throughout their lives. A minimum grade of "C" in Biology CP as well as a strong work ethic, are good predictors for success in this course. This course is not connected to the Health Science Pathway or to Rutgers dual enrollment credit.</p>	

ANATOMY AND PHYSIOLOGY 1 (426) Prerequisite: Successful completion of Biology, Chemistry and Dynamics of Health Care in Society (including RHSP examination of 70% or better).	6 Credits Full Year Grades 11-12
<p>The Anatomy and Physiology I course is the first course in a two-year sequence of the study of the structure and function of the human body. This course follows a sequential development of the major body systems in an organized and structured curriculum. The course is designed to give the students a selective overview of human anatomical structure and an analysis of human physiological principles. Labs will include slide work, dissection of various animals and studies of the human skeleton and muscular system. The course will also use computer simulated dissection, including dissection, exercise physiology and biochemical principles. In this course, the following topics will be discussed: characteristics of life and levels of organization, biochemistry, cell structure and function, the integumentary system, the skeletal system, the muscular system, the nervous system, and special senses.</p> <p>This course is offered as a dual credit option through the Rutgers School of Health Science Professionals (4 credits). The minimum level of satisfactory performance in this course is a 'C-' or better. To receive a 'C-' (70% average) or better, students must first complete ALL course requirements specified above, including meeting the minimum attendance expectation. Students who have a 70% cumulative average or better at the exam registration cutoff will be eligible to take the Rutgers School of Health Professions, Health Science Careers standardized exam to determine college credit. For Anatomy and Physiology 1, the Rutgers School of Health Professions exam grade will be the grade listed on Rutgers SHP transcript. All students must attain a 70% or better on the Rutgers exam to earn college credits.</p> <p>In addition, the first half of Medical Terminology will be infused into this course. Students taking Anatomy and Physiology 2 (RHSP) the following year will have the opportunity to sit for both the Anatomy and Physiology 2 (RHSP) and the Medical Terminology (RHSP) exams.</p>	

ANATOMY AND PHYSIOLOGY 2 (427)	6 Credits Full Year
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Prerequisite: Successful completion of Biology, Chemistry, Dynamics of the Health Care in Society and Anatomy & Physiology 1 (including RHSP examinations of 70% or better for both).	Grades 11-12
<p>The Anatomy and Physiology 2 course is the second course in a two-year sequence of the study of the structure and function of the human body. This course follows a sequential development of the major body systems in an organized and structured curriculum. The course is designed to give the students a selective overview of human anatomical structure and an analysis of human physiological principles. Labs will include dissection of various animals and specific organs and various activities to study blood, digestive processes and excretory functions. The course will also use computer simulated dissection. In this course, the following topics will be discussed: the endocrine system, the cardiovascular system, including heart structure and function, blood, the lymphatic system and the immune system, the excretory system, the male and female reproductive systems and pregnancy.</p> <p>This course is offered as a dual credit option through the Rutgers School of Health Science Professionals (4 credits). The minimum level of satisfactory performance in this course is a 'C-' or better. To receive a 'C-' (70 average) or better, students must first complete ALL course requirements specified above, including meeting the minimum attendance expectation. Students who have a 70% cumulative average or better at the exam registration cutoff will be eligible to take the Rutgers School of Health Professions, Health Science Careers standardized exam to determine college credit. For Anatomy and Physiology 2, the Rutgers School of Health Professions exam grade will be the grade listed on Rutgers SHP transcript. All students must attain a 70% or better on the Rutgers exam to earn college credits.</p> <p>In addition, the second half of Medical Terminology will be infused into this course. Students taking Anatomy and Physiology 2 will have the opportunity to sit for both the Anatomy and Physiology 2 and the Medical Terminology exams.</p>	

MEDICAL TERMINOLOGY	0 Credits
Prerequisite: Successful completion of Anatomy & Physiology 1 (including RHSP examination of 'C' or better).	Full Year
Pre/Corequisite: Anatomy and Physiology 2 - RHSP	Grades 11-12
<p>Medical Terminology is the study of words that pertain to body systems, anatomy, physiology, medical processes and procedures and a variety of diseases. It provides specialized language for the health care team, enabling health care workers to communicate in an accurate, articulate and concise manner. This course is designed to give the students a comprehensive knowledge of word construction, definition and use of terms related to all areas of medical science. The course includes but is not limited to terms related to anatomy of the human body, functions of health and disease, and the use of language in processing medical/dental records and claim forms.</p> <p>This course is part of the dual enrollment option through the Rutgers School of Health Science Professionals. This course is split between Anatomy and Physiology 1 CP and Anatomy and Physiology 2 CP. This will better help students contextualize the terminology they are learning by relating it to the study of the human body. While there is no separate grade for medical terminology recorded on the LHS transcript, students will be taking terminology assessments throughout both years. These grades will be logged into a separate spreadsheet to help generate a summative grade. As a 3-credit, dual credit option through the Rutgers School of Health Science Professionals, the minimum level of satisfactory performance in this course is a 70% or better. To receive a 70% average or better, students must first complete ALL course requirements specified above, including meeting the minimum attendance expectation. Students who have a 70% cumulative average or better at the exam registration cutoff will be eligible to take the Rutgers School of Health Professions, Health Science</p>	

Careers standardized exam to determine college credit. For Medical Terminology, the Rutgers School of Health Professions exam grade will be the grade listed on Rutgers SHP transcript. All students must attain a 70% or better on the Rutgers exam to earn college credits.

AP PHYSICS 2 (458)

Prerequisite: Successful completion of AP Physics 1, Algebra 2 and an AP Science application is required.

Corequisite: Pre-Calculus.

6 Credits
Full Year
Grade 11-12

Completion of a summer assignment may be required for this course.

This course follows the curriculum set forth by the College Board and is equivalent to a second semester algebra-based Physics course. Students must have taken AP Physics 1 as a prerequisite course. Minimum grades of "B" or higher in AP Physics 1 and Algebra 2 Honors are good predictors for success in this course. Topics include fluid statics and dynamics, thermodynamics, electrostatics, electrical circuits, magnetic fields, electromagnetism, physical and geometric optics, and topics in modern physics. There will be a focus on inquiry-based laboratory activities which challenge students to design and carry out experiments targeting certain learning objectives. After the AP exam in May, students will utilize their conceptual and mathematical understanding to successfully complete engineering design challenges. It is expected that all students take the AP Physics 2 exam in May.

AP PHYSICS C Mechanics (456)

Prerequisite: Successful completion of AP Physics 1, Algebra 1, 2, Geometry and Pre-Calculus and an AP Science application is required.

Prerequisite/Corequisite: Calculus.

6 Credits
Full Year
Grade 11-12

Completion of a summer assignment may be required for this course.

Advanced Placement Physics C: Mechanics is designed to be the equivalent of a college level course in calculus-based physics. This course provides the same foundation available in college for students majoring in the physical sciences or engineering and is an intensive and analytical course with calculus applied whenever appropriate. AP Physics C: Mechanics provides instruction in each of the following content areas: kinematics; Newton's laws of motion; work, energy, and power; systems of particles and linear momentum; circular motion and rotation; and oscillation and gravitation. Minimum grades of "B" or higher in Pre-Calculus Honors and AP Physics 1 are good predictors for success in this course. It is expected that all students take the AP Physics C - Mechanics exam in May.

AP PHYSICS C Electricity and Magnetism (455)

Prerequisite: Successful completion of AP Physics 1, Algebra 1, 2, Geometry and Pre-Calculus and an AP Science application is required.

Prerequisite/Corequisite: Calculus.

6 Credits
Full Year
Grade 11-12

Completion of a summer assignment may be required for this course.

Advanced Placement Physics C: Electricity and Magnetism is designed to be the equivalent of a college level course in calculus-based physics. This course provides the same foundation available in college for students majoring in the physical sciences or engineering and is an intensive and analytical course with calculus applied whenever appropriate. AP Physics C: Electricity and Magnetism provides instruction in each of the following content areas: electrostatics, conductors, capacitors, and dielectrics;

electric circuits; magnetic fields; and electromagnetism. Minimum grades of “B” or higher in Pre-Calculus Honors and AP Physics 1 are good predictors for success in this course. It is expected that all students take the AP Physics C – Electricity and Magnetism exam in May.

AP SEMINAR (234) Prerequisite: AP Seminar application and teacher recommendation required. Due to limited availability, enrollment in this course is based on acceptance into the program.	5 Credits Full Year Grades 10-11
Completion of a summer assignment may be required for this course. Please check with the instructor for further details. Students must apply and be selected for this two-year AP Capstone program. Students will develop their analytical skills by exploring appropriate themes and topics selected by the teachers and the students. Students will learn to synthesize information from multiple sources, develop their own perspectives in research-based essays, and design oral and visual representations. Students will be expected to complete an individual paper, presentation, and end-of-course exam as well as a team research project. These benchmark assignments will be submitted to the College Board and contribute to the final AP score. The second course needed to complete the AP Capstone program, <i>AP Research</i> , will be offered the following school year.	

AP RESEARCH (235) Prerequisite: Successful completion of AP Seminar.	5 Credits Full Year Grade 11-12
Completion of a summer assignment may be required for this course. Please check with the instructor for further details. This full-year elective course will be the second class needed to complete the two-year AP Capstone program. This course will allow students to deeply explore an academic topic, problem, or issue of their own choice and interest. Through this investigation, students will cultivate the skills and discipline necessary to conduct independent research. Students will learn to design an effective and ethical plan of investigation, which utilizes various academic research methods. The students will demonstrate their understanding by constructing a 5,000-word academic thesis paper as well as present and perform an oral defense of their research methodology.	

NATURAL RESOURCES AND ECOLOGY (445) (formerly known as Sustainability Science 1) Prerequisite: Successful completion of Biology	6 Credits Full Year Grades 10-12
Natural Resources and Ecology (NRE) is a full year lab course devoted to applying science and engineering practices to managing our natural resources from an ecological perspective. NRE is one of nine courses offered by the Curriculum for Agricultural Science Education (CASE), a national program devoted to providing career-based curricula in agricultural science education, especially in natural resources management. Successful completion of an end-of-year exam can earn 3 college credits from Rutgers University as a substitute for a Natural Resources Course offered through the School of Environmental and Biological Sciences (SEBS). This course represents the first course in the Sustainability Pathway at LHS, and an alternative to Environmental Science CP that will fulfill necessary NJ state science standards.	

SUSTAINABILITY SCIENCE 2 (429) Prerequisite: Successful completion of Biology, Environmental Science and Sustainability Science 1	6 Credits Full Year Grade 11-12
<p>In this is the culminating course for the LHS Sustainability Pathway, students will assume the role of researcher and steward to their communities, both local and global. Designed for a student interested in pursuing a career in environmental engineering or sustainable business, this course is a hand-on, independent study with the teacher assuming the role as coach to assist in student-driven projects. Sustainability Science 2 is the second full year lab course devoted to applying science and engineering practices to confronting sustainability issues within our community, at the local, national, and global scale. Major units of study are tailored to students' individual interests. This project-based course will combine independent research, experimentation, engineering design, and community outreach opportunities with the LHS community, local businesses, and universities.</p>	

Science Elective Courses

Full Year Courses

Science Research Program

INTRODUCTION TO RESEARCH METHODS HONORS (423) Prerequisite: Successful completion of Biology. Application and teacher recommendation required. Due to limited availability, enrollment in this course is based on program acceptance.	5 Credits Full Year Grade 10
<p>Completion of a summer assignment is required for this course.</p> <p>The Science Research program at Livingston High School is a three-year sequence of courses that begins with the 10th Grade student. Students have the opportunity to perform research projects and participate in the scientific research community as part of their high school experience. They will learn time management, sophistication in dealing with professionals, and bibliographic research using online services. Students choose a topic from mathematics, physical sciences, life sciences, social sciences, or psychology and pursue this research for three years. The first year is dedicated to searching for and defining a topic of interest, learning the process of primary article dissection, basic statistics, presentation of knowledge in written and oral forms, finding a mentor, and collaborating to host the Annual Science Research Symposium.</p>	

INTERMEDIATE RESEARCH METHODS HONORS (434) Prerequisite: Minimum grade of B in Introduction to Research Methods Honors.	5 Credits Full Year Grade 11
<p>Completion of a summer assignment is required for this course.</p> <p>This is the second course in the three-year Science Research Program. After completing a summer research experience, students will continue obtaining, evaluating, and synthesizing primary sources on their topic of interest. They will engage in activities that help them to strengthen their ability to pose research questions, design experimental procedures, analyze and interpret data, construct explanations, and communicate their findings. Students will solidify a summer experience in which they will conduct authentic research on their topic, which allows them to write their culminating research</p>	

paper during their senior year. Students in Intermediate Research Methods Honors will take a leadership role in developing and executing the Science Research Program's Annual Science Symposium.

ADVANCED RESEARCH METHODS (443) Prerequisite: Minimum grade of B in Intermediate to Research Methods Honors.	5 Credits Full Year Grade 12
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Completion of a summer assignment is required for this course.
After conducting their authentic research projects during the summer, students in Advanced Research Methods will write their culminating research paper. This paper will include an abstract, introduction, methods section, data and analysis section, discussion section, acknowledgements, and literature cited. These research papers will be submitted to various Science Research competitions throughout the year. Students will also develop presentations on their research, which will include elevator speeches and a 10-12 minute PowerPoint presentation. As seniors, these students will be the keynote speakers at the Science Research Annual Science Symposium. Because of the level of advanced research conducted, this course will receive AP weighting when grades are calculated.

Science Elective Courses Semester Courses

ASTRONOMY (433) Prerequisite: Successful completion of Biology.	2.5 Credits Semester Grades 10-12
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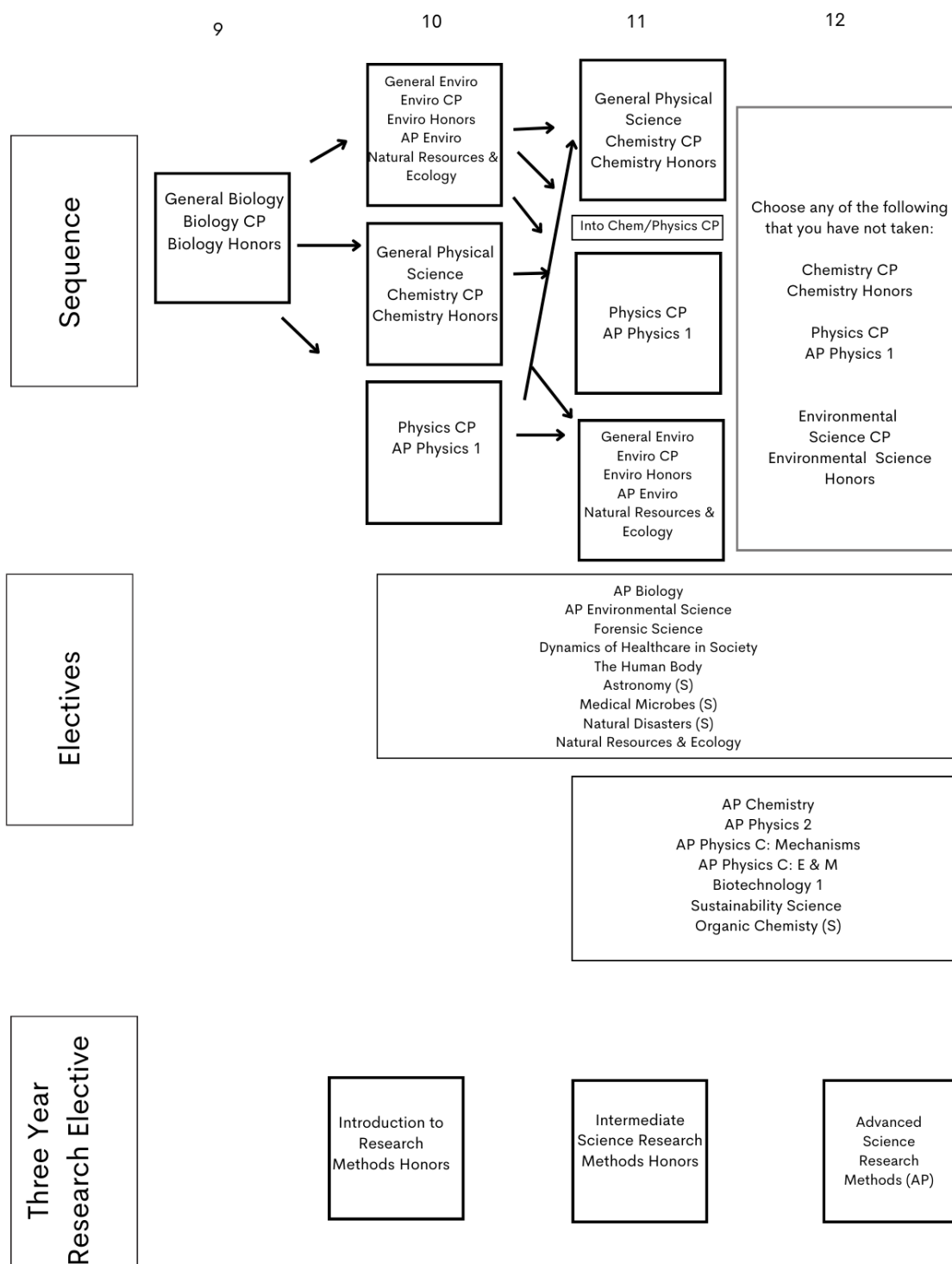
Science begins with observation. Ancient societies used the motions of the Sun, Moon, and stars to establish their cultures and sustain their people. The field of astronomy has changed dramatically over the last millennia, and with every new discovery, our understanding of the Universe changes as well. This semester course is designed to provide students with an exploratory experience in astronomy topics including: gravity, orbital motion, constellations, moon phases, telescopes, the solar system, stellar evolution, galaxies, the big bang, and the possibility of life outside our solar system. Hands-on lab activities as well as use of the STARLAB simulator are methods to explore these topics in greater depth.

MEDICAL MICROBES (437) Prerequisite: Successful completion of Biology.	2.5 Credits Semester Grades 10-12
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Despite enormous advances in treatment and prevention made during the 20th Century, infectious diseases remain a leading cause of death worldwide. Today, diseases once thought eradicated are re-emerging, others historically responsive to treatment are becoming increasingly drug-resistant, and emerging pathogens are posing new threats to human health. The goal of this semester course is to give students a basic understanding of the causes, pathology, and treatments of human infectious diseases, if they are known through the eyes of Public Health. Though not a lab class, students will have the opportunity to explore plating, isolating and identifying bacteria, as well as simulations of viral outbreaks that mimic our recent pandemic. We will look at the rise of HIV/AIDS from both a historical perspective and early 'gum-shoe' epidemiology, and compare it to the rise of SARS Cov-2 (Covid 19). Students will also explore how socioeconomic conditions and human decisions affect the spread of disease.

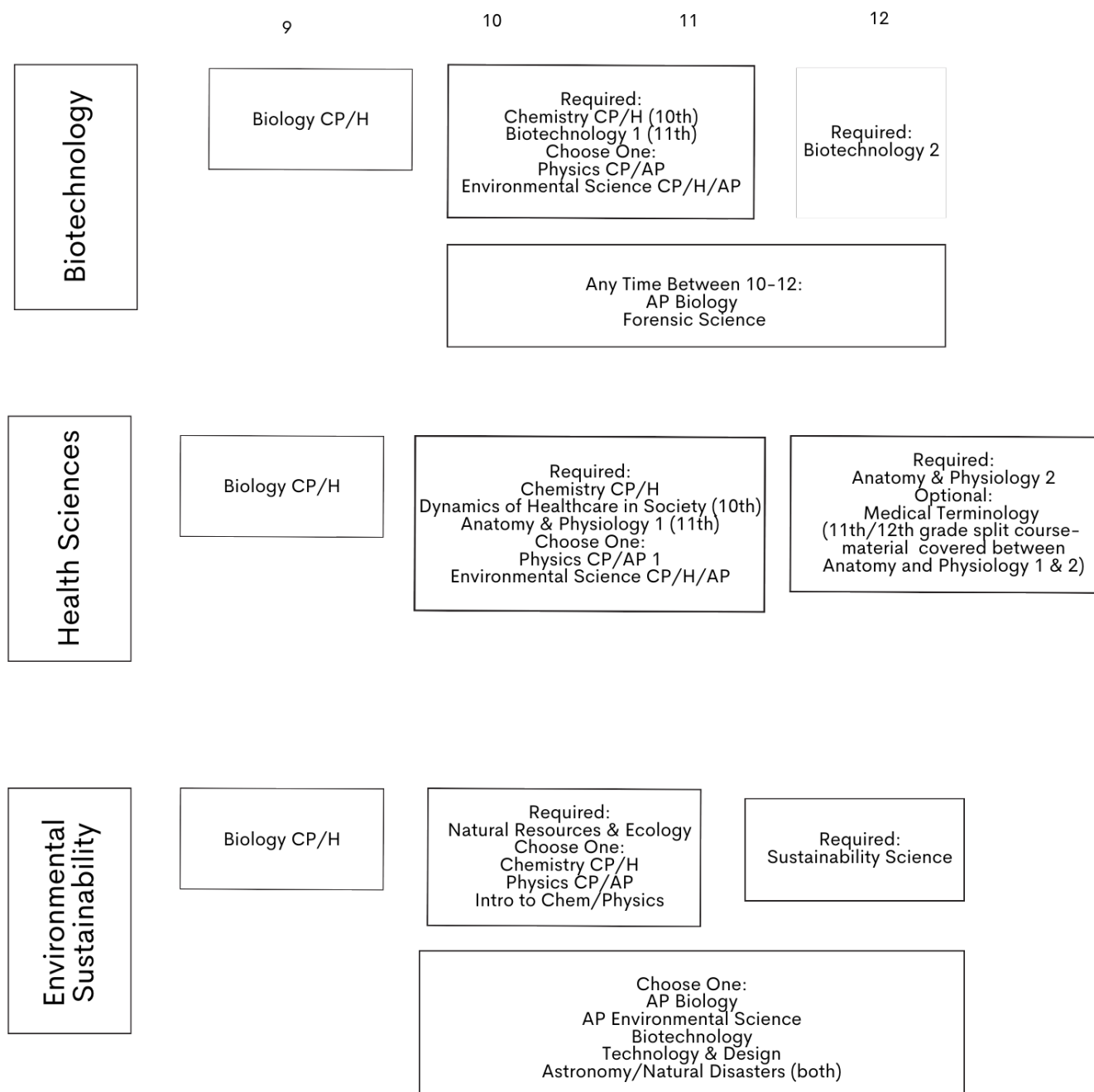
NATURAL DISASTERS (438) Prerequisite: Successful completion of Biology.	2.5 Credits Semester Grades 10-12
<p>This semester course will use historical case studies to examine the causes and impacts of natural disasters such as tsunamis, earthquakes, volcanoes, and hurricanes. To accomplish this, students will learn how Earth systems and processes work, how humans interact with them, with sometimes disastrous results, and how disasters can be mitigated. Socioeconomic issues such as economic costs, costs to human and ecosystem health, and aid relief and recovery in developed versus undeveloped nations will be incorporated into class discussions.</p>	
ORGANIC CHEMISTRY (436) Prerequisite: Successful completion of Biology and Chemistry.	2.5 Credits Semester Grades 11-12
<p>Organic Chemistry is a semester course designed to provide a general background in organic chemistry for students interested in any medical field or a specific career in science. Organic Chemistry deals specifically with the structures, synthesis, and reactions of carbon-containing compounds. This organic chemistry course will help students to understand the reactions, industrial uses, biological significance, and environmental concerns associated with alkanes, alkenes, alkynes, alcohols, ethers, aldehydes, ketones, organic acids, and amines as well as provide students with an introduction to polymer chemistry. Topics have been chosen by carefully examining prerequisite knowledge from biology and chemistry classes, looking at background information needed for college, medical school and other professional fields, and by examining the relevancy of the material in terms of students' lives. Labs are scheduled within regular class periods and are all safe "hands-on" activities. A minimum grade of "B" in Chemistry CP or a grade of "C" in Chemistry Honors would be a good predictor for success in this course.</p>	

Course Sequence for Science



Science Career Pathways

***Note: these represent completion of entire pathways. The first course in each sequence is open to all students from 10th grade on.**



Social Studies Department

The goal of the Social Studies Department at Livingston High School is to study the decisions of the past in order for our students to become responsible citizens and participate in the formation of a better future. Through the study of history, our students will gain insight into the complexities of national and world issues and understand potential consequences of actions. Each phase of our program offers students an extensive knowledge base, critical thinking skills, progressive mastery of oral and written communication, comprehensive geography skills, appreciation of artistic and cultural pursuits, and numerous opportunities to examine and discuss values and ethics of the global community and the American society. In order for our democracy to continue to grow and become more inclusive, we need a participatory, educated, and responsible populace.

The New Jersey Department of Education mandates students receive three core courses in the area of Social Studies. These three courses include one course (5 credits) of World History and two courses (10 credits) of United States History. The department offers these core courses at the CP and Honors level with an Advanced Placement opportunity in US History II. A humanities option is also available for students interested in exploring the interaction between History, Literature and the Arts. While these are the requirements as per the NJDOE for graduation, please consult with your school counselor regarding your post-secondary program goals and specific requirements.

Beyond the mandatory courses, the department also offers 18 different elective options. These courses explore a variety of topics of interest. Students who are interested in a future involving social studies can investigate a number of career pathways. These courses include both semester and full year terms as well as CP and Advanced Placement levels. The Holocaust and Genocide course provides an opportunity to receive college-credit through a dual enrollment arrangement with Kean University.

There can be courses where students may have proficiency in the content from prior or out-of-school programs or experiences. If a student seeks to enroll in a course and has not taken the required pre-requisite at Livingston High School, the student must demonstrate his/her comparable proficiencies to the department supervisor. Students may not enter into a course without successful completion of a required pre-requisite or department supervisor approval. Upon supervisory approval, students will be notified if they are permitted to enter the requested course.

Please visit the LHS Social Studies Department website for additional information: [click here](#).

Social Studies Core Courses

GENERAL MODERN WORLD HISTORY (271) Prerequisite: This course is assigned at the recommendation of the Child Study Team and is a Resource Center Level course.	5 Credits Full Year Grade 9
This required course is the foundation of the Social Studies program and is designed to give students an international perspective on the historical forces that shape the global community. Students will develop social studies skills, and consider the impact of current issues in Europe, Asia, the Middle East, Latin America, and Africa. This course is designed for students with emergent critical thinking, reading, writing, and oral communication skills. The goals and objectives identified in each student's IEP will be addressed throughout this course.	
MODERN WORLD HISTORY CP (212) Prerequisite: None.	5 Credits Full Year

	Grade 9
<p>This required course represents the foundation of the Social Studies program at the High School. The course is designed to give students an international perspective on the historical forces that have shaped the global community. Students will analyze the complex and interdependent roots of the political, social, cultural, and economic structures in Europe, Asia, the Middle East, Latin America, and Africa. A primary question is how historical decisions and forces shaped current issues and cultural intersections in all continents. Students will consider the patterns of individuals and societies interactions with their environment and surrounding, both past and present. Through a thematic organization, this course enables students to examine human development and interactions across time periods. This approach allows students to assess the historical impact of each of these themes on our modern world.</p>	

MODERN WORLD HISTORY HUMANITIES CP (212H) Prerequisite: None.	5 Credits Paired with English 1 Humanities CP Full Year Grade 9
<p>Must be taken in conjunction with English 1 Humanities</p> <p>This interdisciplinary course will link four subjects (History, English, Art and Music) to explore the historical, literary, and cultural influences that have shaped the United States. Students will have a dedicated period for both English and History, and will have an Art and Music teacher assigned to both sections for supplemental lessons. Students will be immersed in a variety of texts, including literature, non-fiction, electronic media, film, music, and fine arts in order to create their own original print and non-print works. Students will have opportunities for experiential learning through field trips, projects, and specialized art and music lessons that highlight the humanities curriculum. These courses are designed to synthesize concepts in Modern World History, the acquisition of literacy skills, and an appreciation and application of the Fine and Performing Arts as a way of developing a cohesive understanding of the human experience from the Renaissance to the present. Selection of 9th grade Humanities will require two dedicated class periods and will fulfill the Social Studies and English standards required for graduation by the state of New Jersey.</p>	

MODERN WORLD HISTORY HONORS (210) Prerequisite: None.	5 Credits Full Year Grade 9
<p>This required course represents the foundation of the social studies program at the high school. The design of the course will encourage students to examine topics in greater depth with an emphasis on the evaluation of how historical events shaped the global community. Students will apply their understanding to assess political, social, cultural, and economic development within an international framework. Independent reading, informative class discussion, and research-based assignments facilitate student interaction with course themes and contemporary issues. Through a thematic organization, this course enables students to trace important developments that influence human interaction across time periods. This approach allows students to assess the historical impact of each of these themes on our modern world and develop global citizenship competencies, including cultural competence, empathy, and interdisciplinary problem solving.</p>	

MODERN WORLD HISTORY HUMANITIES HONORS (210H) Prerequisite: None.	5 Credits Paired with English 1 Humanities H Full Year Grade 9
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Must be taken in conjunction with English 1 Humanities Honors

This interdisciplinary course will link four subjects (History, English, Art and Music) to explore the historical, literary and cultural influences that have shaped the United States. Students will have a dedicated period for both English and History, and will have an Art and Music teacher assigned to both sections for supplemental lessons. Students will be immersed in a variety of texts, including literature, non-fiction, electronic media, film, music, and fine arts in order to create their own original print and non-print works. Students will have opportunities for experiential learning through field trips, projects, and specialized art and music lessons that highlight the humanities curriculum. These courses are designed to synthesize concepts in Modern World History, the acquisition of literacy skills, and an appreciation and application of the Fine and Performing Arts as a way of developing a cohesive understanding of the human experience from the Renaissance to the present. Selection of 9th grade Humanities will require two dedicated class periods and will fulfill the Social Studies and English standards required for graduation by the state of New Jersey. Honors will be distinguished by a variety of additional independent readings, informative class discussions, and research-based assignments to highlight the relationship between course themes and contemporary issues.

GENERAL US HISTORY 1 (272) Prerequisite: This course is assigned at the recommendation of the Child Study Team and is a Resource Center Level course.	5 Credits Full Year Grade 10
This required course is designed to give students insight into the historical forces that shaped and continue to shape New Jersey and the United States. Students will consider the importance of the basic foundations of the United States from the pre-colonial period to the end of the 19 th century, and make connections to current local and national events. This course is designed for students with emergent critical thinking, reading, writing, and oral communication skills. The goals and objectives identified in each student's IEP will be addressed throughout this course.	

US HISTORY 1 CP (232) Prerequisite: Successful completion of Modern World History.	5 Credits Full Year Grade 10
This course examines the history of the United States from the geo-political context in which the colonies were founded to the United States as an emerging power during the early 20 th century. This required course is designed to give students insight into the historical forces that shaped and continue to shape New Jersey and the United States. Students will analyze the complex political, social, cultural, and economic foundations of the United States, and make connections to current local and national events. Students will explore the Constitution as a founding document of the United States and examine the forces of change that tested the Constitution.	

US HISTORY 1 HUMANITIES CP (232H) Prerequisite: Successful completion of Modern World History.	5 Credits Paired with English 2 Humanities CP
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	Full Year Grade 10
<p>Must be taken in conjunction with English 2 Humanities</p> <p>This interdisciplinary course will link four subjects (History, English, Art and Music) to explore the historical, literary and cultural influences that have shaped the United States. Students will have a dedicated period for both English and History, and will have an Art and Music teacher assigned to both sections for supplemental lessons. In this humanities course students will examine the economic, literary, political, and intellectual influences that helped develop a unique American identity from Pre-Columbian societies and continuing through the beginning of the 20th century. Students will be immersed in a variety of texts, including literature, non-fiction, electronic media, film, music, and fine arts in order to create their own original print and non-print works. Students will have opportunities for experiential learning through field trips, projects, and specialized art and music lessons that highlight the humanities curriculum. These courses are designed to synthesize concepts in Modern American History, the acquisition of literacy skills, and an appreciation and application of the Fine and Performing Arts as a way of developing a cohesive understanding of the human experience from the turn of the 20th century to the present. Selection of 10th grade Humanities will require two dedicated class periods and will fulfill the Social Studies and English standards required for graduation by the state of New Jersey.</p>	

<p>US HISTORY 1 HONORS (230) Prerequisite: Successful completion of Modern World History.</p>	<p>5 Credits Full Year Grade 10</p>
<p>Completion of a summer assignment is required for this course.</p> <p>This course is designed to prepare students for the United States History II Advanced Placement course. Students will be introduced to a rigorous academic curriculum and AP-caliber assignments and assessments that will include multiple choice and open-ended questions. Students are expected to independently read and take notes on the same textbook that is used in AP USII. Students selecting this course should also demonstrate a strong aptitude for writing. This course will provide students with a strong factual and analytical experience with selected themes in early American history. Students will not only evaluate the historic forces that shaped the development of the United States from pre-Columbian societies continuing through the end of the 19th century, but also will analyze various interpretations of the past and develop new interpretations that address current trends in historiography.</p>	

<p>US HISTORY 1 HUMANITIES HONORS (230H) Prerequisite: Successful completion of Modern World History.</p>	<p>5 Credits Paired with English 2 Humanities H Full Year Grade 10</p>
<p>Must be taken in conjunction with English 2 Humanities Honors</p> <p>This interdisciplinary course will link four subjects (History, English, Art and Music) to explore the historical, literary and cultural influences that have shaped the United States. Students will have a dedicated period for both English and History, and will have an Art and Music teacher assigned to both sections for supplemental lessons. In this humanities course students will examine the economic, literary, political, and intellectual influences that helped develop a unique American identity from Pre-Columbian societies and continuing through the beginning of the 20th century. Students will be immersed in a variety of texts, including literature, non-fiction, electronic media, film, music, and</p>	

fine arts in order to create their own original print and non-print works. Students will have opportunities for experiential learning through field trips, projects, and specialized art and music lessons that highlight the humanities curriculum. These courses are designed to synthesize concepts in Modern American History, the acquisition of literacy skills, and an appreciation and application of the Fine and Performing Arts as a way of developing a cohesive understanding of the human experience from the turn of the 20th century to the present. Selection of 10th grade Humanities will require two dedicated class periods and will fulfill the Social Studies and English standards required for graduation by the state of New Jersey. Honors will be distinguished by a variety of additional independent readings, informative class discussions, and research-based assignments to highlight the relationship between course themes and contemporary issues.

GENERAL US HISTORY 2 (273)

Prerequisite: This course is assigned at the recommendation of the Child Study Team and is a Resource Center Level course.

5 Credits

Full Year

Grade 11

This course is designed to give students insight into the historical forces that shaped and continue to shape New Jersey and the United States. Students will develop social studies skills, and consider the importance of the basic foundations of the United States from the end of the 19th century to the present, and make connections to current local and national events. This course is designed for students with emergent critical thinking, reading, writing, and oral communication skills. The goals and objectives identified in each student's IEP will be addressed throughout this course.

US HISTORY 2 CP (242)

Prerequisite: Successful completion of US History 1.

5 Credits

Full Year

Grade 11

This course is designed to give students insight into the historical forces that shaped—and continue to shape—New Jersey and the United States. Students will analyze the complex political, social, cultural, and economic foundations of the United States from the Progressive Era to the present, and make connections to current local and national events. The design of the course will encourage students to examine topics in greater depth with an emphasis on the evaluation of how events shaped modern American culture.

US HISTORY 2 HUMANITIES CP (242H)

Prerequisite: Successful completion of United States History 1.

5 Credits

Paired with English 3

Humanities CP

Full Year

Grade 11

Must be taken in conjunction with English 3 Humanities

This interdisciplinary course will link four subjects (History, English, Art and Music) to explore the historical, literary and cultural influences that have shaped the United States. Students will have a dedicated period for both English and History, and will have an Art and Music teacher assigned to both sections for supplemental lessons. Students will be immersed in a variety of texts, including literature, non-fiction, electronic media, film, music, and fine arts in order to create their own original print and non-print works. Students will have opportunities for experiential learning through field trips, projects, and specialized art and music lessons that highlight the humanities curriculum. These courses are designed to synthesize concepts in Modern American History, the acquisition of literacy

skills, and an appreciation and application of the Fine and Performing Arts as a way of developing a cohesive understanding of the human experience from the turn of the 20th century to the present. Art and Music teachers will supplement instruction and enrich content. Selection of 11th grade Humanities will require two dedicated class periods and will fulfill the Social Studies and English standards required for graduation by the state of New Jersey.

US HISTORY 2 HONORS (244)

Prerequisite: Successful completion of US History 1.

**5 Credits
Full Year
Grade 11**

This course is designed to give students insight into the historical forces that shaped—and continue to shape—New Jersey and the United States. Students will analyze the complex political, social, cultural, and economic foundations of the United States from the Progressive Era to the present, and make connections to current local and national events. The design of the course will encourage students to examine topics in greater depth with an emphasis on the evaluation of how events shaped modern American culture. Frequent and lengthy assignments will be used to analyze the impact of historical themes on contemporary issues. These assignments will include the independent reading of a historical novel and completion of an analytical research paper.

US HISTORY 2 HUMANITIES H (244H)

Prerequisite: Successful completion of United States History 1.

**5 Credits
Paired with English 3
Humanities H
Full Year
Grade 11**

Must be taken in conjunction with English 3 Humanities Honors

This interdisciplinary course will link four subjects (History, English, Art and Music) to explore the historical, literary and cultural influences that have shaped the United States. Students will have a dedicated period for both English and History, and will have an Art and Music teacher assigned to both sections for supplemental lessons. Students will be immersed in a variety of texts, including literature, non-fiction, electronic media, film, music, and fine arts in order to create their own original print and non-print works. Students will have opportunities for experiential learning through field trips, projects, and specialized art and music lessons that highlight the humanities curriculum. These courses are designed to synthesize concepts in Modern American History, the acquisition of literacy skills, and an appreciation and application of the Fine and Performing Arts as a way of developing a cohesive understanding of the human experience from the turn of the 20th century to the present. Art and Music teachers will supplement instruction and enrich content. Selection of 11th grade Humanities will require two dedicated class periods and will fulfill the Social Studies and English standards required for graduation by the state of New Jersey. Honors will be distinguished by a variety of additional independent readings, informative class discussions, and research-based assignments to highlight the relationship between course themes and contemporary issues.

AP US HISTORY 2 (241) Prerequisite: Successful completion of US History 1 and AP US History 2 application is required.	5 Credits Full Year Grade 11
Completion of a summer assignment is required for this course. This course is a continuation of the two-year sequence in United States History and is one of the most challenging courses offered by the Social Studies Department. Following the national College Board Advanced Placement United States History curriculum, this course is designed to give students a strong analytical experience with selected themes and historical thinking skills. Students will not only evaluate the historic forces that shaped the development of the United States from the end of the 19 th century to the modern world, but also will analyze multiple interpretations of the past and develop new interpretations that address current trends in historiography. It is expected that all students take the AP United States History exam in May.	

Social Studies Elective Courses

Full Year Courses

AP AFRICAN AMERICAN STUDIES (262) Prerequisite: Successful completion of US History I.	5 Credits Full Year Grades 11-12
Completion of a summer assignment is required for this course. AP African American Studies follows a rigorous curriculum, set by the national College Board Advanced Placement. This course is a multidisciplinary approach to the study of African American history and culture from the emergence of slavery in the American colonies to the present. It intends to focus on forced and voluntary migrations such as the slave trade and the Great Migration, cultural movements such as the Harlem Renaissance, and political movements such as the struggle for Civil Rights. This course complies with the Amistad New Jersey State Mandate. This course will also place the experiences of ordinary African Americans in the context of these movements, as well as in the larger templates of national and international histories.	

AP COMPARATIVE GOVERNMENT AND POLITICS (260) Prerequisite: Successful completion of Grade 9.	5 Credits Full Year Grades 10-12
Completion of a summer assignment is required for this course. Comparative Government and Politics follows a rigorous curriculum, set by the national College Board Advanced Placement, designed to introduce students to the rich diversity of political life outside the United States. The course uses a comparative approach to examine the political structures; policies; and the political, economic, and social challenges among six selected countries: Great Britain, Mexico, Russia, Iran, China, and Nigeria. This course is designed to introduce students to fundamental concepts used by political scientists to study the governments and politics. It is expected that all students take the AP Comparative Politics exam in May.	

AP HUMAN GEOGRAPHY (252) AP HUMAN GEOGRAPHY (252W)	5 Credits Full Year
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Prerequisite: Successful completion of Grade 9 and AP Human Geography application is required.	Grades 10-12
Completion of a summer assignment is required for this course. AP Human Geography is an introductory college-level human geography course. Students cultivate their understanding of human geography through data and geographic analyses as they explore topics like patterns and spatial organization, human impacts and interactions with their environment, and spatial processes and societal changes. This course follows the curriculum from the most recent course and exam description by the College Board. Students looking to apply their classroom work to the real world have the opportunity to enroll in AP Human Geography WE Service. In the AP with WE Service program, students engage in service learning activities to strengthen their understanding of AP course content and skills, using what they're learning to tackle real-life social issues. There is an opportunity for students to earn college credit by taking the AP Human Geography exam in May.	

AP SEMINAR (234) Prerequisite: AP Seminar application approval and teacher recommendation required.	5 Credits Full Year Grades 10-11
Completion of a summer assignment may be required for this course. Please check with the instructor for further details. Students must apply and be selected for this two-year AP Capstone program. Students will develop their analytical skills by exploring appropriate themes and topics selected by the teachers and the students. Students will learn to synthesize information from multiple sources, develop their own perspectives in research-based essays, and design oral and visual representations. Students will be expected to complete an individual paper, presentation, and end-of-course exam as well as a team research project. These benchmark assignments will be submitted to the College Board and contribute to the final AP score. The second course needed to complete the AP Capstone program is <i>AP Research</i> .	

AP RESEARCH (235) Prerequisite: Successful completion of AP Seminar.	5 Credits Full Year Grade 11-12
Completion of a summer assignment may be required for this course. Please check with the instructor for further details. This full-year elective course will be the second class needed to complete the two-year AP Capstone program. This course will allow students to deeply explore an academic topic, problem, or issue of their own choice and interest. Through this investigation, students will cultivate the skills and discipline necessary to conduct independent research. Students will learn to design an effective and ethical plan of investigation, which utilizes various academic research methods. The students will demonstrate their understanding by constructing a 5,000-word academic thesis paper as well as present and perform an oral defense of their research methodology.	

AP WORLD HISTORY: MODERN (261) Prerequisite: Successful completion of Grade 9.	5 Credits Full Year Grades 10-12
Following the National College Board Advanced Placement curricula, this course is designed to develop students' abilities to think conceptually about world history from 1200 CE to the present.	

Students will apply historical thinking & writing skills as they explore five themes of human development. AP World History encompasses the history of the five major geographical regions of the globe: Africa, the Americas, Asia, Europe, and Oceania, with special focus on historical developments and processes that cross multiple regions. It is expected that all students take the AP World History exam in May.

AP US GOVERNMENT AND POLITICS (250)

Prerequisite: Successful completion of US History 1.

**5 Credits
Full Year
Grades 11-12**

Following the national College Board Advanced Placement curriculum, AP United States Government and Politics introduces students to key political ideas, institutions, policies, interactions, roles, and behaviors that characterize the political culture of the United States. The course examines politically significant concepts and themes, through which students learn to apply disciplinary reasoning to assess the causes and consequences of political events, and interpret data to develop evidence-based arguments

It is expected that all students take the AP US Government and Politics exam in May.

MODERN EUROPEAN HISTORY CP (222)

Prerequisite: Successful completion of Grade 11.

**5 Credits
Full Year
Grade 12**

This full-year course is designed to give students insight into the historical forces that continue to define Europe. Students will analyze the complex political, social, cultural, and economic foundations of Europe from the 14th century to the present, with particular emphasis on events in the 20th century. This course is designed for students with above-average critical thinking, reading, writing, and oral communication skills.

MODERN EUROPEAN HISTORY HONORS (220)

Prerequisite: Successful completion of Grade 11.

**5 Credits
Full Year
Grade 12**

Completion of a summer assignment is required for this course.

This full-year course is designed to give students insight into the historical forces that continue to define Europe. Students will analyze the complex political, social, cultural, and economic foundations of Europe from the 14th century to the present, with particular emphasis on events in the 20th century. Frequent and lengthy assignments will be used to analyze the impact of historical themes on contemporary issues. This course is designed for students with above-average critical thinking, reading, writing, and oral communication skills.

AP EUROPEAN HISTORY (251)

Prerequisite: Successful completion of Grade 11 and AP European History application is required.

**5 Credits
Full Year
Grade 12**

Completion of a summer assignment is required for this course.

Following the national College Board Advanced Placement curriculum, this course is designed to give students a strong analytical experience with selected themes in European history. Students will not only evaluate the historic forces that shaped the development of Europe from 1350 to the present, but also will analyze multiple interpretations of the past and develop new interpretations that address current trends in historiography. It is expected that all students take the AP European History exam in May.

HOLOCAUST AND GENOCIDE STUDIES (245)

Prerequisite: Successful completion of US History 2.

5 Credits
Full Year
Grade 12

As a dual enrollment course, students who successfully complete this course will be eligible to receive three (3) college credits and an official college transcript from Kean University. This course is designed to give students the opportunity to consider the origins, conduct, and legacy of genocide from the early 20th century to the present. Students will analyze the Armenian Genocide, the Holocaust, the Cambodian “Killing Fields,” the Bosnian Crisis, the Rwandan Massacre, and the controversial genocide in the Sudan. This course complies with the New Jersey State Mandate for Holocaust and Genocide Education.

AP PSYCHOLOGY (249)

Prerequisite: Successful completion of Grade 11 and Successful completion of Grade 11.

5 Credits
Full Year
Grade 12

Completion of a summer assignment is required for this course.

This course follows the National College Board Advanced Placement and is designed to provide a rigorous university-level survey of Psychology. Students will examine the systematic and scientific study of the behavior and mental processes of human beings. Students will examine the psychological terms, concepts, and theories associated with each of the major perspectives within psychology. Students will also learn and apply the methodology psychologists employ in their practice. AP Psychology offers a course and exam in psychology via the College Board to qualified students who wish to receive college-level credit for an introductory psychology course (i.e. Psychology 101). It is strongly recommended that students take the AP Psychology exam in May.

Social Studies Elective Courses

Semester Courses

AFRICAN AMERICAN STUDIES (237)

Prerequisite: Successful completion of Grade 9.

2.5 Credits
Semester
Grades 10-12

This course combines history and literature to survey African American history and culture from the emergence of slavery in the American colonies to the present. It intends to focus on forced and voluntary migrations such as the slave trade and the Great Migration, cultural movements such as the Harlem Renaissance, and political movements such as the struggle for Civil Rights. This course complies with the Amistad New Jersey State Mandate. This course will also place the experiences of

ordinary African Americans in the context of these movements, as well as in the larger templates of national and international histories.

CLASSICAL FOUNDATIONS OF WESTERN CIVILIZATION (224)

Prerequisite: Successful completion of Grade 9.

2.5 Credits
Semester
Grades 10-12

This semester course will give students an intensive examination of Ancient Greece and Rome. Students will connect these ancient models with its continuing influence on Western culture, traditions and institutions. Students will begin by investigating Greece during its Bronze Age in the second millennium B.C.E. and conclude with the fall of Rome in the fifth century C.E.

COMMUNITY LEADERSHIP (247)

Prerequisite: None.

2.5 Credits
Semester
Grades 10-12

This semester elective is designed to empower students to take a more active role in their community through hands-on experiences in service-learning. This course will begin with an exploration of the historic origins of active citizenship and community involvement in America. Students will learn how to identify, create, and implement a service learning project using a six step framework of effective community engagement. Various case studies depicting effective community leadership will be studied and used as guides for student projects.

GENDER STUDIES (227)

Prerequisite: Successful completion of Grade 9.

2.5 Credits
Semester
Grades 10-12

This course is designed to give students insight into the experiences, historical conditions, and concerns of women both in the present and the past. Students will identify and think critically about issues of gender, and develop an awareness of women's status, rights, and opportunities in societies around the world.

MIDDLE EASTERN STUDIES (223)

Prerequisite: Successful completion of Grade 9.

2.5 Credits
Semester
Grades 10-12

This course is designed to encourage a sophisticated understanding of the conflicts and challenges that have defined the Middle East over the last 100 years. Students will analyze the region's history, geography, politics, economy, religions, and varied cultures. Ultimately, the purpose of this course is to provide an introductory approach to better understand the dynamics in this volatile region and to cultivate a greater understanding of the integral relationship between a region's geography, society, and economy. By the end of this course, students will have a deep understanding of the geopolitical climate of the Middle East and be able to answer the question, "What went wrong?"

PSYCHOLOGY (239) Prerequisite: Successful completion of Grade 10.	2.5 Credits Semester Grades 11-12
This course is designed to promote a better understanding of the study of human behavior and mental functioning. Students will explore the history of psychology and analyze the research methods utilized in this discipline. They will discover theories used to explain human development, personality, motivation, emotion, stress, and social behavior and complete a research-based project on mental illness and treatment. Psychology includes a variety of formal and informal discussions, simulations and demonstrations, individual and group projects, as well as other oral and written assessments.	

SENIOR MENTORS (255) Prerequisite: None.	2.5 Credits Semester Grade 12
Senior Mentors is a new semester course that will provide 12th grade students an opportunity to develop their skills as collaborative leaders through training that will include but not be limited to group facilitation skills, understanding one's role as a leader, communicating with a co-facilitator, goal-setting and attainment, motivation and engagement, building trust and respect, active listening, time management, and understanding various leadership styles and their effectiveness in myriad situations. Students will then be provided the opportunity to put their learning into practice by mentoring 9th grade students at LHS with the necessary support and guidance as they transition to LHS.	

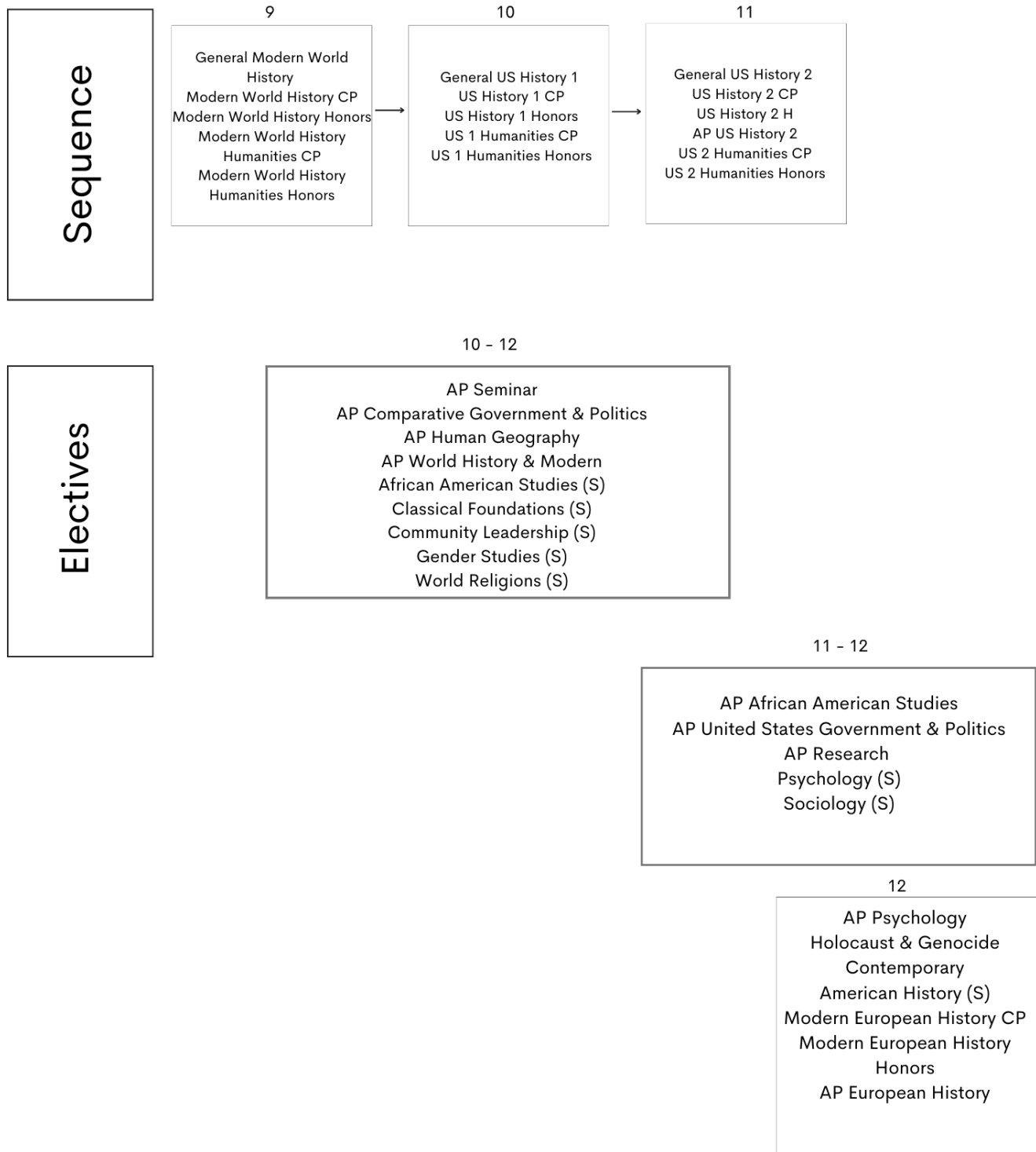
SOCIOLOGY (238) Prerequisite: Successful completion of Grade 10.	2.5 Credits Semester Grades 11-12
The primary goal of this course is to develop a greater understanding of social relations, group interactions, the impact of the social environment on each of us, and the social issues facing us today. This will be accomplished through sociological research, oral presentations, group discussions, and other projects related to topics including culture, socialization, gender roles, stratification, and deviant behavior.	

CONTEMPORARY AMERICAN HISTORY (225) Prerequisite: Successful completion of US History 2.	2.5 Credits Semester Grades 12
This course is designed to more deeply investigate historical events of the recent past. Starting with the election of Ronald Reagan and the re-emergence of a conservative political movement, students will utilize a thematic approach to understand historical trends through the 21 st century. These themes will include economic developments, domestic and foreign policy influences, social pressures and political divisions. By the end of this course, students will have a stronger contextual understanding of the history of their own lifetimes.	

WORLD RELIGIONS (226) Prerequisite: None.	2.5 Credits Semester
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	Grades 10-12
<p>The goal of this course is to expose students to the experiences of religions throughout the world in order to build a deeper cultural understanding and participate in a diverse global society. This course is designed to provide a brief introduction to major religious traditions, including Hinduism, Buddhism, Confucianism, Daoism, Judaism, Christianity, and Islam. By looking at both the origins of religion and our modern world, students will have a fuller understanding of the beliefs, culture, and conflict surrounding the religions of the world. Students will understand the connection between religion and society, and the many ways these two ideas are intertwined. Topics of study will include each tradition's historical origins, conceptions of the sacred, rituals and practices, and contemporary trends.</p>	

Course Sequence for Social Studies



Technology, Design and Engineering Department

Technology, Design, and Engineering (TDE) Department courses provide students with an opportunity to develop an understanding of technology, engineering, design, and innovation. In these courses, students are actively involved in hands-on problem-based situations where they need to design, build, test, and document solutions. Students in all courses are exposed to related careers and the requirements for seeking further study. The department offers courses in the following areas: Engineering and Architecture CAD and Design, Visual/Graphic Communication, Electronics/Robotics, Transportation/Automotive Technology, and Theatre/Woods/Construction Technology.

All the courses listed below satisfy the 21st Century Life & Careers graduation requirement (minimum of 5 credits required for graduation). While these are the requirements as per the NJDOE for graduation, please consult with your school counselor regarding your post-secondary program goals and specific requirements.

There can be courses where students may have proficiency in the content from prior or out-of-school programs or experiences. If a student seeks to enroll in a course and has not taken the required pre-requisite at Livingston High School, the student must demonstrate his/her comparable proficiencies to the department supervisor. Students may not enter into a course without successful completion of a required pre-requisite or department supervisor approval. Upon supervisor approval, students will be notified if they are permitted to enter into the requested course.

Please visit the LHS Technology Department website for additional information: [click here](#).

Technology Department Full Year Courses

TECHNOLOGY & DESIGN 1 (728) Prerequisite: None.	5 Credits Full Year Grades 9-12
Through a series of “real-world” contextualized design problems, students will develop the knowledge and skills that will enable them to better understand the connection between science, technology, engineering, and design. Students will develop and apply knowledge and hard/soft skills that will enable them to design, develop, build, test, and present solutions to technological issues in science and technology. This course is highly recommended for students interested in STEM careers, especially mechanical engineering and physical science.	
TECHNOLOGY & DESIGN 2 (729) Prerequisite: Successful completion of Technology and Design 1 or demonstration of comparable proficiencies.	5 Credits Full Year Grades 10-12
Technology and Design 2 provides students with a more in-depth understanding of how engineering/design ideas are generated, proposals developed, models/prototypes/products fabricated, and ideas presented. Students will become familiar with metallic and composite materials, CAD fundamentals, CNC/CAM makerspace tools and machines, control technologies, and the patent process. An emphasis in the class will be on inventions/innovations, and the development of solutions to “real-world” problems and issues. As a dual enrollment course, students who earn a minimum	

grade of “C” in this course are eligible to receive dual enrollment credit for Fundamentals of Engineering Design 101 at NJIT.

VISUAL/GRAPHIC COMMUNICATIONS 1 (718)

Prerequisite: None.

**5 Credits
Full Year
Grades 9-12**

Visual/Graphic Communications provides students with a comprehensive understanding of the tools, techniques, and processes that allow one to effectively communicate ideas in a variety of visual and graphic modes. Using a “graphic design” approach, students work with a variety of tools including cameras, film scanners, computer software, (Photoshop, Illustrator, InDesign) and printers/presses to produce photographs, page layouts, web page layouts, silkscreen prints, and other printed media.

VISUAL/GRAPHIC COMMUNICATIONS 2 (738)

Prerequisite: Successful completion of Visual/Graphic Communications 1.

**5 Credits
Full Year
Grades 10-12**

Through a series of hands-on, design-oriented projects, students will become familiar with the Graphic Design process, design-oriented software, and the connection between photography, text layout, advertising, and print media. Students will develop advanced levels of knowledge and proficiency with Adobe Photoshop, Illustrator, and InDesign and use a variety of printing techniques (screen printing, dye-sublimation, etc.) to produce products/design solutions to personal, school, and community problems and situations.

PRODUCTION GRAPHICS (734)

Prerequisite: Successful completion of Visual/Graphic Communications 2.

**5 Credits
Full Year
Grades 11-12**

Production Graphics focuses on the techniques and processes necessary to design, layout, prepare, and produce print media. Students utilize software (Illustrator, Photoshop, In Design, etc.) to create posters, logos, newsletters, and a variety of other graphic designs. Students will learn about type styles, the process for preparing photographs for publication, and the various ways products are printed (screen printing, offset lithography, etc.). Students are expected to prepare a portfolio of work from the class.

TRANSPORTATION AND AUTOMOTIVE SYSTEMS (714)

Prerequisite: None.

**5 Credits
Full Year
Grades 9-12**

Transportation and Automotive Systems provides students with an overview of transportation-related technologies and systems. Through hands-on projects and assignments, students will become familiar with the design processes related to various types of vehicles and their impact on the consumer and society. In addition, the course provides students with the basic knowledge needed to maintain automobiles in the 21st century, including the use of contemporary computer-assisted diagnostic equipment. Alternative fueled vehicles and power sources will be covered in the course.

Students perform lab assignments on their own vehicle or school-provided cars. Career awareness and consumer knowledge are integrated throughout the course.

AUTO MECHANICS (724)

Prerequisite: Successful completion of Transportation and Automotive Systems or demonstration of comparable proficiencies.

5 Credits
Full Year
Grades 10-12

Auto Mechanics takes students deeper into the workings of today's automotive vehicles. Classroom and lab experiences integrate technical and academic coursework with hands-on lab/shop experiences throughout the year. Students rebuild engines and learn about diagnosing on-board vehicle computer systems. Additional areas of study include: servicing and operation of brakes, electrical/electronic systems, steering/suspension, automatic and manual transmission/transaxles, climate control, and basic body repair/maintenance. Students are encouraged to service their own vehicles or may service school cars.

AUTOMOTIVE & POWER SYSTEMS TECHNOLOGY 1 (731)

Prerequisite: Successful completion of Transportation and Automotive Systems or demonstration of comparable proficiencies.

5 Credits
Full Year
Grades 10-12

This course provides students with the opportunity to delve into current and future automotive and power system technologies that improve or increase performance and/or efficiency. Through classroom and lab experiences that integrate technical and academic coursework with hands-on lab/shop experiences, students will become familiar with electronic/computer control, electric/hybrid drive systems, chassis/suspension design and related "green energy and power" technologies. In addition to basic maintenance and troubleshooting, students will have the opportunity to design, build, test, and evaluate alternative designs and concepts in the energy, power, and transportation/automotive fields.

AUTOMOTIVE & POWER SYSTEMS TECHNOLOGY 2 (741)
Prerequisite: Successful completion of Automotive & Power Systems Technology 1 or demonstration of comparable proficiencies.

5 Credits
Full Year
Grades 11-12

This capstone course will provide students with the opportunity to apply the technical and academic content and lab/work skills related to automotive and power system technologies developed in lower level classes. Students will be challenged to design, develop, fabricate, and maintain automotive and power systems that address a wide range of situations and scenarios, including, but not limited to the Shell Ecomarathon, Solar Decathlon, electric vehicle design, and national competitions related to energy, power, and transportation. Students will also have the opportunity to work on automotive and green energy projects of interest to them.

INTRODUCTION TO COMPUTER ASSISTED DESIGN (715)

Prerequisite: None.

5 Credits
Full Year
Grades 9-12

This course provides students with an introduction to the CAD and rendering softwares used to produce 2 and 3-dimensional drawings of ideas, concepts and solutions. Through a series of

hands-on experiences, students will become familiar with the sketching, scale drawing, print reading, visualization, and dimensioning techniques used by engineers, architects and designers. AutoCAD software will be used throughout the course. Students will also be introduced to 3-D printing technology to generate effective prototypes and models of designs.

The course will prepare students to specialize in either Architecture CAD 2 **OR** Engineering and Product Design in Level 2.

ARCHITECTURE CAD 2 (735)

Prerequisite: Successful completion of Architecture CAD 1 or demonstration of comparable proficiencies.

5 Credits
Full Year
Grades 10-12

Architecture CAD 2 provides students interested in architecture with knowledge and experience related to broad and open-ended design scenarios. The course combines CAD skills learned in Architecture CAD 1 with a series of visualization activities and an overview of the “real world” design process. Students will develop materials that can be used in their college application portfolio. The course will also appeal to students interested in the building trades and interior design.

ELECTRICAL/COMPUTER SCIENCE ENGINEERING (709)

Prerequisite: None.

5 Credits
Full Year
Grades 9-12

Students will become familiar with the soft and hard skills that will lead to success in the electrical/computer science/engineering areas. Through a series of design-related problems focusing on electricity/electronic fundamentals, materials and properties, basic coding, robotics, and radio control, students will become familiar with the engineering design process, documentation techniques, team skills, sketching/rendering, time-management skills, tool and machine safety and use, algorithmic thinking, and fabrication/troubleshooting skills. This course provides a solid foundation for AP Computer Science Principles and AP Computer Science A.

ELECTRONIC SYSTEMS (725)

Prerequisite: A minimum grade of C in Electrical/Computer Science/Engineering or demonstration of comparable proficiencies.

5 Credits
Full Year
Grades 10-12

Electronics Systems provides students with a comprehensive overview of DC electricity fundamentals and an introduction to digital electronics. Students, through a series of lab experiences and design projects, will become familiar with voltage, current, and power, as well as digital circuit, analysis, design, and application. This course is recommended for students interested in engineering, computers, and/or physics-related careers.

ENGINEERING & PRODUCT DESIGN CAD 2 (745)

Prerequisite: Successful completion of ENGINEERING & PRODUCT DESIGN CAD 1 or demonstration of comparable proficiencies.

5 Credits
Full Year
Grades 10-12

Engineering and Product Design CAD 2 provides students interested in engineering and computer modeling careers with the knowledge and skills to develop intricate computer models/animations of

solutions to technological problems. The course combines prerequisite CAD skills with open-ended design scenarios. Included in the course will be the use of CIM and CAM techniques to produce additive and subtractive models. At the conclusion of this course, students will be eligible to sit for the Autodesk Inventor/Fusion badging certificate. **As a dual enrollment course, students who earn a minimum grade of “C” in this course are eligible to receive dual enrollment credit for MET 103 Engineering Graphics & Intro to CAD from NJIT.**

INDEPENDENT STUDY IN TECHNOLOGY (746, 747)

Prerequisite: A minimum grade of B in one of the specified technology sequences is a good predictor for success in this course or demonstration of comparable proficiencies.

**5 Credits
Semester
Grades 11-12**

This course is offered to students who have successfully completed both Level 1 and Level 2 courses in one of the following areas: Architecture/Engineering CAD, Automotive Mechanics, Technology and Design, Fashion, Visual/Graphic Communication or Woods/Stagecraft. The student must contract with a sponsoring technology teacher in one of the areas specified. The nature and detail of the work to be completed by the student must be mutually agreed upon prior to the beginning of the course. This course is for students who intend to enter design-related competitions and/or develop a college admissions portfolio.

ROBOTICS (750)

Prerequisite: Successful completion of Technology & Design 1, Electrical/Computer Science/Engineering or demonstration of comparable proficiencies.

**5 Credits
Full Year
Grades 10-12**

This course presents an overview of robotics in practice and includes the following topics: motion planning, mobile mechanisms, sensors, control mechanisms and programming. Students in this course will become familiar with electronic, mechanical and pneumatic systems common to robots and the techniques used to program controllers and robots. This class will focus on the application of course topics through the planning, development, programming, and testing of solutions to a series of design problems. Students are expected to participate in a state/national robotics competition as part of the course.

WOOD TECHNOLOGY 1 (717)

Prerequisite: None.

**5 Credits
Full Year
Grades 9-12**

Wood Technology 1 is an introductory course that provides students with the opportunity to learn the skills and processes associated with various types of woodworking. Through hands-on projects that use woodworking tools and techniques, students develop competence with woodworking safety, project planning and layout, basic project construction, joinery, manufacturing production, and construction systems. Students plan and construct projects aligned with their interests and abilities.

WOOD TECHNOLOGY 2 (727)

Prerequisite: Successful completion of Wood Technology 1.

**5 Credits
Full Year
Grades 10-12**

Wood Technology 2 is an advanced-level course that provides students with the opportunity to expand their woodworking skills through hands-on design and guided instruction. In addition to developing more advanced woodworking techniques, students enhance initial skills acquired in Wood Technology 1. Students develop advanced techniques for laying out and planning projects, constructing projects, performing joinery techniques, and mass-producing products. Students also have the opportunity to be involved in a local construction service project.

STAGECRAFT 1 (723)

Prerequisite: None.

5 Credits

Full Year

Grades 9-12

Stagecraft 1 is intended for students who have an interest in stage/set design and construction and/or lighting/sound management. Students will learn the fundamentals of set/scenery design and theater layout. Students learn how to safely construct scenery and sets and to operate the various types of lighting and sound equipment associated with theatrical productions. After-school participation with school productions is not required for the class.

STAGE CRAFT 2 (733)

Prerequisite: Successful completion of Stage Craft 1 or demonstration of comparable proficiencies.

5 Credits

Full Year

Grades 10-12

Stage Craft 2 provides students interested in theater set design and construction and/or theater lighting an opportunity to expand the skills learned in StageCraft 1. Through a series of hands-on design projects, students will acquire the knowledge and skills necessary to manage and organize a production. This course is for the student who has a serious interest in theater arts. After-school participation with school productions is not required for this class.

AP COMPUTER SCIENCE PRINCIPLES (752)

Prerequisite: None.

5 Credits

Full Year

Grades 11-12

AP Computer Science Principles introduces students to the central ideas of computer science and instills the central ideas and practices of computational thinking. The course is designed to be an equivalent of a first semester introductory college computing course and will provide students with an overview of knowledge and practices that will enable students to develop creative computational artifacts and analyze computational data, information or knowledge.

Rather than focus on a specific programming language, this course focuses on using technology and programming in an iterative process similar to what artists, writers, computer scientists, and engineers use to bring ideas to life. Through class instruction and individual, as well as collaborative application of concepts, principles, and understandings to a series of design scenarios/problems, students will develop the language, knowledge, skills, and aptitudes to address computational-related issues.

Major areas of study include: creativity and computing, abstraction, data and information, algorithms, programming, the internet, and the global impact of computing.

TECHNOLOGY & DESIGN 3 (748) Prerequisite: Successful completion of Technology and Design 2 or demonstration of comparable proficiencies.	2.5 Credits Semester Grades 11-12
<p>Technology and Design 3 provides students with an opportunity to expand on the concepts and skills developed in Technology and Design 2. The student must contract with a sponsoring technology teacher in Tech and Design. Students will develop and refine technology, design, and engineering skills through the leading/directing of collaborative teams that focus on a local, state, and/or national design scenario, project, and competition. Students in Technology & Design 3 are expected to be deeply committed to a specific project/competition (must be approved by the teacher) and utilize the class to independently research, design, develop, build, test, evaluate, and present their design ideas.</p>	

TECHNOLOGY: TODAY AND TOMORROW (751) Prerequisite: None.	2.5 Credits Semester Grades 11-12
<p>Technology: Today and Tomorrow is a semester elective for juniors and seniors who want to expand their understanding of how technology shapes and is shaped by culture and society. In an interesting, multi-media manner, with extensive hands-on projects/assignments, this course will provide students with an interactive opportunity to explore the major modern areas of technology, engineering, and design that impact the daily lives of most people and/or promise to do so in the future. Topics in the course include: 1) Tools, Machines, and Materials that Changed the World: From Monster Machines to Nanotechnology, 2) The Evolution of Energy, Power, and Transportation Technologies: Getting Lean and Green, 3) The Evolution of Buildings and Structures: How Tall and Far Can They Go?, 4) The Evolution of Communications: How Computers, Cell Phones, and 3-D Imagery are Changing the World, 5) Space – The Final Frontier: Are <u>You</u> Ready to Go?, 6) Biotechnology and its Impact on Society, 7) The Military and its Role in Technology Transfer, 8) All This Stuff – Where Does It All Go? 9) Big Disasters: Learning from Colossal Engineering Failures, and 10) Amazing Inventions and Inventors.</p>	

INDEPENDENT STUDY IN TECHNOLOGY (746, 747) Prerequisite: A minimum grade of B in one of the specified technology sequences is a good predictor for success in this course or demonstration of comparable proficiencies.	2.5 Credits Semester Grades 11-12
<p>This course is offered to students who have successfully completed both Level 1 and Level 2 courses in one of the following areas: Architecture/Engineering CAD, Automotive Mechanics, Technology and Design, Fashion, Visual/Graphic Communication or Woods/Stagecraft. The student must contract with a sponsoring technology teacher in one of the areas specified. The nature and detail of the work to be completed by the student must be mutually agreed upon <u>prior to</u> the beginning of the course. This course is for students who intend to enter design-related competitions and/or develop a college admissions portfolio. Students can obtain the application for the Independent Study from their school counselor. The deadline for students to complete the application for an Independent Study is the last day of school in June.</p>	

Course Sequence for Technology By Concentration/Areas of Interest*

	9	10	11	12
Engineering/Design (Mechanical)	Technology & Design 1 Intro to CAD	Technology & Design 1 Technology & Design 2 Intro to CAD Engineering & Product Design CAD 2 Robotics	Technology & Design 1 Technology & Design 2 Technology & Design 3 (S) Intro to CAD Engineering & Product Design CAD 2 Robotics Tech: Today & Tomorrow (S)	Technology & Design 1 Technology & Design 2 Technology & Design 3 (S) Intro to CAD Engineering & Product Design CAD 2 Robotics Tech: Today & Tomorrow (S)
Architecture/Civil Engineering	Intro to CAD	Intro to CAD Architecture CAD 2 Interior Design (S)	Intro to CAD Architecture CAD 2 Interior Design (S) Engineering & Product Design CAD 2 Tech: Today & Tomorrow (S)	Intro to CAD Architecture CAD 2 Interior Design (S) Engineering & Product Design CAD 2 Tech: Today & Tomorrow (S) Independent Study
Graphic Design	Visual/Graphic Communication 1	Visual/Graphic Communication 1 Visual/Graphic Communication 2	Visual/Graphic Communication 1 Visual/Graphic Communication 2	Visual/Graphic Communication 1 Visual/Graphic Communication 2 Independent Study Production Graphics
Wood Working/ Construction/Stage Theatre	Wood Technology 1 Stage Craft 1 Interior Design (S)	Wood Technology 1 Wood Technology 2 Stage Craft 1 Stage Craft 2 Interior Design (S)	Wood Technology 1 Wood Technology 2 Stage Craft 1 Stage Craft 2 Interior Design (S) Tech: Today & Tomorrow (S)	Wood Technology 1 Wood Technology 2 Stage Craft 1 Stage Craft 2 Interior Design (S) Tech: Today & Tomorrow (S) Independent Study

Course Sequence for Technology By Concentration/Areas of Interest*

	9	10	11	12
Transportation/ Automotive Technology & Engineering	Transportation and Automotive Systems	Transportation and Automotive Systems Auto Mechanics Automotive & Power Systems Technology 1	Transportation and Automotive Systems Auto Mechanics Automotive & Power Systems Technology 1 Automotive & Power Systems Technology 2 Tech: Today & Tomorrow	Transportation and Automotive Systems Auto Mechanics Automotive & Power Systems Technology 1 Automotive & Power Systems Technology 2 Tech: Today & Tomorrow
Electrical/Computer Science/Engineering Design & Robotics	Electrical/ Computer Science/ Engineering Computer Programming (Math)	Electrical/ Computer Science/ Engineering Computer Programming (Math) AP Computer Science A (Math) Electronics Fabrication Electronic Systems Robotics	Electrical/ Computer Science/ Engineering Computer Programming (Math) AP Computer Science A (Math) AP Computer Science Principals Electronics Fabrication Electronic Systems Robotics Tech: Today & Tomorrow (S) Technology	Electrical/ Computer Science/ Engineering Computer Programming (Math) AP Computer Science A (Math) AP Computer Science Principals Electronics Fabrication Electronic Systems Robotics Tech: Today & Tomorrow (S) Technology

Visual Arts Department

The Visual Arts Department offers a full range of exciting courses to suit every student's interests and abilities. The program offers opportunities for students to explore a variety of media and to learn about art history and master artists. With the exception of the Printmaking course and the Mural Painting & Design course, all courses in this department are full-year offerings and range from the introductory level to Advanced Placement courses.

Prior experience in Art is not a prerequisite for enrollment in many courses offered. Advanced Art students have the opportunity for the exploration of Art in greater depth through advanced course offerings, as well as Advanced Placement for possible college credit. The New Jersey Student Learning Standards in the Visual and Performing Arts are an integral part of all courses in the Art Department. While there are the requirements as per the NJDOE for graduation, please consult with your school counselor regarding your post-secondary program goals and specific requirements.

Please visit the LHS Art Department website for additional information: [click here](#).

Visual Arts Department Full Year Courses

CERAMICS 1 (811) Prerequisite: None.	5 Credits Full Year Grades 9-12
This full-year course is an introductory level pottery course. The hand-building methods of pinch, coil, and slab techniques used in Ceramic construction will be presented. Students will also learn additive and subtractive sculptural techniques. Basic wheel throwing techniques will be introduced, as well as surface decoration and glazing techniques. Ceramic sculpture is explored with inspiration from artists from the past and present throughout the world. Students in this course will develop a comprehensive knowledge of aesthetics and art criticism.	
CERAMICS 2 (842) Prerequisite: Successful completion of Ceramics 1.	5 Credits Full Year Grades 10-12
The Ceramics 2 course continues the study of various Ceramic hand building, sculptural processes. This course will integrate the design and construction of Ceramic ware using the full spectrum of artistic tools, techniques and materials. The students will also learn advanced surface decoration and glazing techniques/methods. Art history, criticism, aesthetics and careers will be studied, with a focus on Ceramics. This course is highly recommended for, but not exclusive to, students interested in art and art related careers. This class will serve as a <u>recommended prerequisite</u> for students preparing for Advanced Placement Studio Art in Ceramics/3D Design.	
CREATIVE PHOTOGRAPHY 1 (827) Prerequisite: None.	5 Credits Full Year Grades 9-12
Creative Photography is a full-year course in which students will explore the creative and technical skills required to produce an artistic photographic image. This course provides units of study that include a thorough knowledge of the SLR 35mm camera, digital photography, and Adobe Photoshop.	

Students will have the opportunity to build a strong photographic foundation to develop an individual approach to seeing, thinking and creating. Students will recognize the works and contributions of master photographers and will evaluate their work and the work of others through the critique process. This course is highly recommended for students interested in taking Creative Photography 2.

CREATIVE PHOTOGRAPHY 2 (829)

Prerequisite: Successful completion of Creative Photography 1.

**5 Credits
Full Year
Grades 10-12**

In this course, experienced photography students apply the skills learned in their first year of photography to create advanced imagery. In Creative Photography 2, students will encounter a wide range of digital photographic processes, including: color printing, Photoshop, photographic manipulation, multiple images, photographic sculptures, solarization and others. This course will elaborate upon the photographic techniques and processes covered in Creative Photography 1 in a digital format and explore careers in the photographic industry. Students will be inspired by the work of both modern and traditional photography masters. This class will serve as a recommended prerequisite for students preparing for Advanced Placement Studio Art in Photography.

DIGITAL IMAGING 1 (812)

Prerequisite: None.

**5 Credits
Full Year
Grades 9-12**

This full-year introductory level course explores the creative and technical skills required to build a strong foundation in a variety of digital media. This course provides a multifaceted artistic experience, which includes digital photography, video, and animation. Students have the opportunity to develop and produce images utilizing various software programs. This is an exciting and comprehensive course of study for any student interested in the digital art world. In the Mac lab, students will learn to use Adobe Photoshop, Maya, Garage Band, Adobe After Effects, and iMovie software. Students will also study digital artists, participate in self/class critique, and understand aesthetics.

DIGITAL IMAGING 2 (813)

Prerequisite: Successful completion of Digital Imaging 1.

**5 Credits
Full Year
Grades 10-12**

This full-year advanced level course will challenge students to create advanced digital images, videos, 2-D interactive games, and 2-D and 3-D animations. Students will explore the advanced creative and technical skills to master the media of digital imaging. In the Mac lab, students will learn and utilize Flash, Photoshop, Illustrator, Painter, Maya, and iMovie software. This is an exciting and comprehensive class for any student with an interest in the digital art world. As with all the art classes, students will learn about digital artists throughout the world and participate in self/class critique. This class will serve as a recommended prerequisite for students preparing for Advanced Placement Studio Art in Digital Imaging.

DRAWING (814)

Prerequisite: None.

**5 Credits
Full Year
Grades 9-12**

In this full-year course, students develop the ability to observe, record, perceive, explore, imagine, and create through the process of drawing. Students will learn drawing processes and explore various forms of media such as: graphite, colored pencils, charcoal, watercolor, and pen and ink. Emphasis is placed on experimental drawing techniques, mixed media and printmaking techniques. The drawing styles of the great master artists will be explored, as well as styles from current artists around the world, in addition to self/class critiques. This class will serve as a suggested preparation for students interested in Advanced Placement Studio Art in Drawing/Design.

METAL ARTS (818)
Prerequisite: None.

5 Credits
Full Year
Grades 9-12

This full-year course offers students an opportunity to explore the multifaceted world of metal sculpture and jewelry design. Students are provided with the opportunity to learn basic metal sculptural processes and will develop skills in design using various metals and wire. The techniques used to create unique, one of a kind sculptural and jewelry constructions include sawing, piercing, wire forming, and soldering.

PAINTING (833)
Prerequisite: None.

5 Credits
Full Year
Grades 9-12

This full-year introductory course is designed for all students seeking a strong foundation in the medium of painting. Various painting styles and media will be explored as the class progresses, and students will be inspired by the work of both modern and traditional artists. Different painting media are taught including oil, acrylic, and watercolor. Students will learn to use various techniques to create works of art in realistic, abstract, and non-objective styles. This class will serve as a suggested preparation for students interested in Advanced Placement Studio Art in Drawing/Design.

PORTFOLIO DEVELOPMENT (837)
Prerequisite: Successful completion of Visual Arts or any Level 1 Art course.

5 Credits
Full Year
Grades 10-12

In this course, a variety of media are explored on a comprehensive level. Emphasis will be placed on improving skills and techniques in artwork preparation and execution with exposure to an extensive background in art history, criticism, and aesthetics. A portfolio of work that will demonstrate the range of each student's skills and abilities will be developed. This course serves as a prerequisite for students preparing for Advanced Placement Studio Art in painting, drawing or 2-dimensional design. Students will also become familiar with career opportunities in the arts.

SCULPTURE (821)
Prerequisite: None

5 Credits
Full Year
Grades 9-12

This full-year course is designed to introduce students to the two basic sculptural processes, additive and subtractive, which will be used in the creation of three-dimensional forms. This course integrates the four basic methods of producing sculpture in a series of studio experiences, which include skill development in modeling, carving, constructing, and assembling. Studio work will include relief sculpture, sculpture in the round, assemblage, construction, and kinetic sculpture. The full spectrum of sculptural tools, techniques, and materials will be utilized. Students will have the opportunity to work with a variety of media including clay, wood, wire, plaster, metal, fiber, plastic, cardboard, paper, and found objects. Art history, criticism, aesthetics, and careers will be studied.

TELEVISION PRODUCTION (820) Prerequisite: None	5 Credits Full Year Grades 9-12
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This full-year class is an introductory course for all students seeking a strong foundation in all aspects of TV production. Basic training on TV studio and portable video equipment is provided, and students will gain an understanding of the production and postproduction processes. Hands-on training is obtained by producing studio projects in digital video media and in a state-of-the-art television studio.

ADVANCED TELEVISION PRODUCTION (830) Prerequisite: Successful completion of Television Production.	5 Credits Full Year Grades 10-12
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In this course, experienced television students apply the skills learned in *Television Production* to produce programs used throughout the school and district, thereby furthering their skills in television production. Students will learn more advanced theories in television, in addition to the history of television. Students are introduced to digital video technology through the use of digital video (DV) cameras and computer editing and to multiple camera electronic field production through the use of a sophisticated remote production vehicle. While participating in a more in-depth study of the medium of television, students will produce programs of many formats including information, entertainment, community service, and public relations. Many of the activities are related to the production of programs for broadcast over cable TV. Students will be inspired by the work of both modern and traditional television masters.

TV NEWS/AM WIRED (840) Prerequisite: Successful completion of Television Production and written entrance test.	5 Credits Full Year Grades 10-12
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In this course, experienced television students apply the skills learned in *Television Production* to produce a morning announcement/news program for Livingston High School, thereby furthering their skills in TV journalism. While participating in a more in-depth study of electronic newsgathering and studio production, students will create a daily program that is both informative and entertaining to viewers. Students will also use advanced skills to produce this daily five-minute program, while examining numerous news shows and exploring various journalistic approaches. Through experimentation, the limits of the five-minute time slot will be stretched and the full potential of this format will be realized. Students will develop methods of monitoring the show's effectiveness at informing, educating, and entertaining its audience, as well as assessing its impact upon public relations and community service. A grade of "B" or higher in Television Production is a good predictor of success in this course.

VISUAL ARTS (810) Prerequisite: None	5 Credits Full Year Grades 9-12
<p>This full-year course is an introductory level class for all students seeking a strong foundation in the Visual Arts and who seek an outlet for creative expression. Students will be exposed to a full spectrum of artistic tools, techniques and materials, as well as art history, criticism and aesthetics. The Elements of Art and Principles of Design are the focus of this course, giving students a vehicle for their creativity. This course may serve as a prerequisite for students preparing for Advanced Placement Studio Art and is recommended for students with an interest in art or an art-related career.</p>	

AP STUDIO ART (850, 850A, 850C, 850D) Prerequisite: Portfolio review and successful completion of two sequential full year courses in the area of concentration.	5 Credits Full Year Grades 11-12
<p>Completion of a summer assignment is required for this course.</p> <p>This full-year Advanced Placement Studio Art course provides high school students with college-level studio art experiences leading to a portfolio of work for evaluation by the College Board. The portfolio is the vehicle through which students can demonstrate their ability to deal with the fundamental concerns of the Visual Arts and earn credit and/or advanced placement at the college level. AP Studio Art students create a portfolio of work to demonstrate the artistic skills and ideas they have developed, refined, and applied over the course of the year to produce visual compositions. The AP Program offers three studio art courses and portfolios: Two-Dimensional Design, Three-Dimensional Design, and Drawing — corresponding to the most common college foundation courses. Students may choose to submit any or all of the Drawing, Two-Dimensional Design, or Three-Dimensional Design portfolios. Students may apply to study in the following media: drawing, painting, printmaking, photography, 2-dimensional design, sculpture, ceramics, metal arts, and digital imaging. It is expected that all students take the AP Studio Art exam in May.</p> <ul style="list-style-type: none"> • AP STUDIO ART - DRAWING PORTFOLIO (850): The <u>Drawing Portfolio</u> shows aptitude and study of realistic/observational skills. The medium need not be limited to drawing only; it may also encompass painting and or anything else that is 2-dimensional in nature. • AP STUDIO ART - DESIGN PORTFOLIO (850): The <u>Design Portfolio</u> shows aptitude and study of the basic “Principles of Design”, such as rhythm, movement, balance, proportion, variety, emphasis, harmony, and unity. The subject matter is generally not completely realistic and can be abstract in nature. • AP STUDIO ART – 2D DESIGN - PHOTOGRAPHY PORTFOLIO (850A): The <u>Photography Portfolio</u> shows students’ exploration into various techniques and media. Students will further develop their personal voice in the Visual Arts as they work in photography. They are expected to become independent thinkers and to apply their knowledge of the Elements of Art and Principles of Design to their photographs in order to demonstrate mastery of two-dimensional design skills and concepts. • AP STUDIO ART – 3D DESIGN – CERAMICS (850C): The <u>3D Design Portfolio</u> consists of Ceramics, Metal Arts, Sculpture or Digital 3D Design. Students are expected to become independent thinkers and to apply their knowledge of the Elements of Art and Principles of Design to their work in a variety of media in order to demonstrate mastery of three-dimensional design skills and concepts. • AP STUDIO ART – 2D DESIGN - DIGITAL IMAGING (850D): The <u>Digital Imaging Portfolio</u> shows students’ advanced digital images, videos, 2-D interactive games, and 2-D and 3-D animations. Students will continue to explore advanced creative and technical skills to master the 	

media of digital imaging. In the Mac lab, students will utilize Flash, Photoshop, Illustrator, Painter, Maya, and iMovie software to create a portfolio of work.

AP ART HISTORY (851) Prerequisite: None	5 Credits Full Year Grades 10-12
<p>Completion of a summer assignment is required for this course.</p> <p>This full-year Advanced Placement Art History course provides students with a college level course that explores the nature of art, art making, and responses to art. The focus of the course is to develop an understanding of studies in architecture, sculpture, painting, and other art forms within historical and cultural contexts. In this course, students will examine major forms of artistic expressions and art movements, from ancient times to the present and include a variety of non-western works of art. Students will become active participants in the global art world, engaging with its form and content. They will experience, research, discuss, read, and write about art, artists, art making, responses to, and interpretations of art. Students will learn to examine and critically analyze works of art with intelligence and sensitivity. No prior experience in the history of art is assumed; indeed, students who have done well in other humanities courses, such as History and Literature, or in any of the Studio Arts are especially encouraged to enroll. While the course does not assume prior training or seek primarily to identify students who will major in art history in college, it does require a high degree of commitment to academic work and to the purpose of a program designed to meet college standards. It is expected that all students take the AP Art History exam in May.</p>	

INDEPENDENT STUDY IN VISUAL ARTS (843, 845) or TV (841) ART Prerequisite: Completion of AP Studio Art TV Prerequisites: Completion of both TV Production and Advanced TV Production Candidates must complete an application and obtain approval by the Supervisor of Visual and Performing Arts.	2.5 or 5 Credits Semester or Full Year Grades 11-12
<p>Art: This course is offered to students who have successfully completed an Advanced Placement Studio Art course with a minimum of a "B" average in the selected area of study. Independent study in Art must correspond with the selected area of study of the completed AP Studio Art course.</p> <p>TV: This course is offered to students who have successfully completed both TV Production and Advanced TV Production with a minimum of a "B" average.</p> <p>The student must contact a sponsoring teacher in the specific discipline requested. Prior to the approval of this study, the student, with the input from the sponsoring teacher, must also complete an application. The application outlines the scope and sequence, benchmarks, specific works to be completed, as well as assessments. Admission to the program must be approved by the sponsoring teacher, the Supervisor of Visual and Performing Arts, and an Assistant Principal.</p>	

Visual Art Department Semester Courses

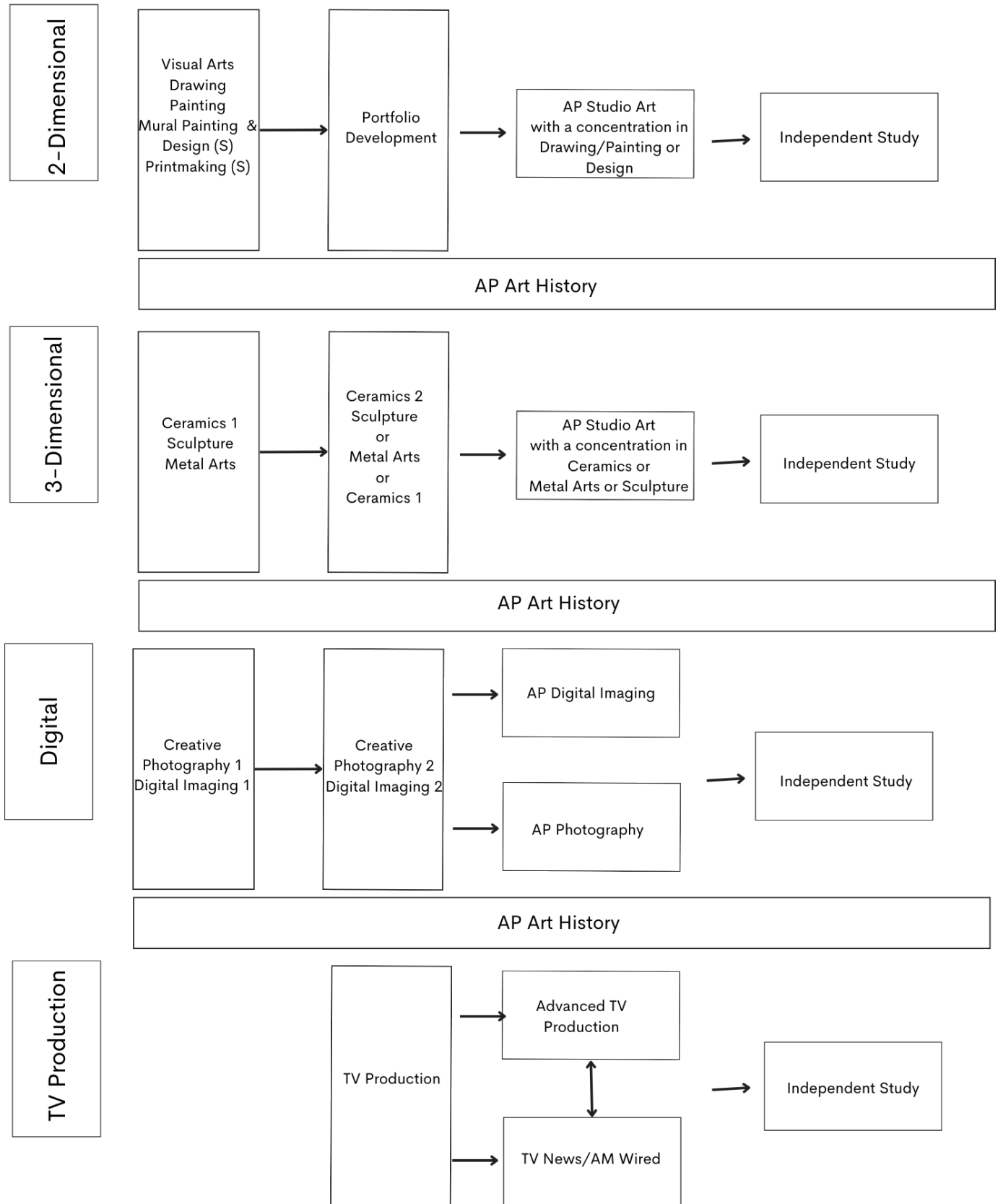
MURAL PAINTING AND DESIGN (834) Prerequisite: None	2.5 Credits Semester
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	Grades 9-12
<p>This semester course is a collaborative art course which emphasizes student group participation in mural painting and design. Students will learn about the history of mural painting, learn how to propose a design/plan, as well as how to execute a mural within a group. Students will learn about visual symbols, composition, proportion/scale drawings, drawing and digital design, color theory, and group cooperation. Students will learn how to take a concept from an idea to a visual representation, as well as how to create large scale site-specific paintings.</p>	

PRINTMAKING (844) Prerequisite: None	2.5 Credits Semester Grades 9-12
<p>This semester course explores the medium of printmaking in both relief and intaglio format. Students will learn the technical aspect of creating prints using a printing press as they incorporate the Elements of Art, aesthetic standards, and Principles of Design into their work. A portfolio of prints will be developed as students learn to create their own work. Types of prints to be created include: collagraph, dry point, wood block, linoleum; including single and multiple color plates, reductive printmaking, as well as monoprinting.</p>	

INDEPENDENT STUDY IN VISUAL ARTS (843, 844) or TV (841) ART Prerequisite: Completion of AP Studio Art TV Prerequisites: Completion of both TV Production and Advanced TV Production Candidates must complete an application and obtain approval by the Supervisor of Visual and Performing Arts.	2.5 or 5 Credits Semester or Full Year Grades 11-12
<p>Art: This course is offered to students who have successfully completed an Advanced Placement Studio Art course with a minimum of a "B" average in the selected area of study. Independent study in Art must correspond with the selected area of study of the completed AP Studio Art course.</p> <p>TV: This course is offered to students who have successfully completed both TV Production and Advanced TV Production with a minimum of a "B" average.</p> <p>The student must contact a sponsoring teacher in the specific discipline requested. Prior to the approval of this study, the student, with the input from the sponsoring teacher, must also complete an application. The application outlines the scope and sequence, benchmarks, specific works to be completed, as well as assessments. Admission to the program must be approved by the sponsoring teacher, the Supervisor of Visual and Performing Arts, and an Assistant Principal. Students can obtain the application for the Independent Study from their school counselor. The deadline for students to complete the application for an Independent Study is the last day of school in June.</p>	

Course Sequence for Visual Arts



Theatre Arts Pathway

Students interested in completing the TAP! Pathway will successfully complete the following requirements:

Requirement A

All three to be taken over the course of four years
The following three courses must be successfully completed:
Speech and Drama
Theatre Arts 1
Stagecraft 1

Requirement B

Two to be taken over the course of four years
Choose two additional courses and successfully complete:
Chorus
Creative Writing
Dance (One semester course to replace PD)
Mural Painting
Music Theory (CP or AP)
Piano
Public Speaking and Debate
Stagecraft 2
Theatre Arts 2

Requirement C

Over the course of four years
Participation in the LHS Fall Drama and/or the Spring Musical -
At least three of the eight productions during the student's high school years

***All three requirements (A, B, and C) must be fulfilled in order to successfully complete the TAP! Pathway and receive a certificate.**

World Languages Department

All four World Language programs in Chinese, French, Italian and Spanish at Livingston High School are aligned with the World-Readiness Standards for Learning Languages formulated by ACTFL, the American Council for the Teaching of Foreign Languages. Courses encompass the New Jersey Student Learning Standards, which address the need to prepare students for an interdependent global environment with a focus on the acquisition of communication skills and cultural competency. Our programs address standard number seven (7). Students are taught and assessed in the three modes of communication: Interpretive, Interpersonal, and Presentational. These indicate progress in a student's ability to understand, interact with, and produce the target language. While there are the requirements as per the NJDOE for graduation, please consult with your school counselor regarding your post-secondary program goals and specific requirements.

The World Languages Department courses offer a range of exciting topics to suit every student's interests and abilities. The program offers opportunities for students to explore communication, cultures, connections, comparisons, and communities in different modes and media in the target language. The world languages courses are designed for students who are able to develop language skills at different paces and different ranges of language proficiency levels. The goal of the World Languages programs is to provide different communicative competence level courses to make second language acquisition available for all students.

At times, there can be courses where students may have a language proficiency in the World Language from prior or out-of-school programs or experiences. If a student seeks to enroll in a course, and has not taken the required prerequisite language course at Livingston High School, the student must demonstrate language proficiency to the department supervisor. Students may not enter into a course without successful completion of a required prerequisite assessment for department supervisor approval. Upon supervisor approval, students will be notified if they are permitted to enter into the requested course.

Also offered is a sequence of ESL (English as a Second Language) courses for students whose native language is not English. English Language Learners (ELLs) are administered an English language proficiency exam to determine their eligibility to enroll in ESL courses.

Please visit the LHS [World Language Department website](#) for additional information.

Chinese Language Courses

CHINESE 1 CP (510) Prerequisite: None.	5 Credits Full Year Grades 9-12
<p>The goal of Level 1 courses is for students to be able to communicate in the target language using words, lists, memorized phrases, and simple sentences. Level 1 courses are the foundation courses in which basic communication skills pertaining to everyday topics are learned. Students are introduced to the four language domains of listening, speaking, reading, and writing through the use of active learning strategies, media, and technology. Basic language usage and cultural awareness are developed through the sequential building of vocabulary and basic grammatical concepts. At the completion of a Level 1 course, the majority of students are expected to perform at the Novice-Mid to Novice-High range of language proficiency. Students enrolled in these courses are expected to participate in the target language activities in class.</p> <p>*In the Level 1 Chinese course, simple writing in simplified or traditional characters will be introduced. Reading text is mostly based on Pinyin Romanization.</p>	

CHINESE 2 CP (520) Prerequisite: Successful completion of Chinese 1.	5 Credits Full Year Grades 9-12
<p>The goal of Level 2 courses is for students to be able to communicate in the target language in simple sentences and to handle simple transactions related to everyday life. The four language domains of listening, speaking, reading, and writing continue to be developed with an emphasis on expanding vocabulary and improving the student's ability to understand and use important grammatical concepts. Language usage and cultural knowledge continue to be developed through the sequential building of the interpretive, interpersonal, and presentational modes of communication. At the completion of a Level 2 course, the majority of students are expected to perform at the Novice-High range of language proficiency. Students enrolled in these courses are expected to communicate primarily in the target language in class.</p> <p>*In Level 2 Chinese, writing in simplified or traditional characters will be further developed. Reading text is based on Chinese characters with some Pinyin Romanization.</p>	

CHINESE 3 CP (535) Prerequisite: Successful completion of Chinese 2.	5 Credits Full Year Grades 9-12
<p>The goal of Level 3 courses is for students to be able to communicate in the target language using strings of sentences and to ask and answer questions to handle transactions of everyday life. The four language domains of listening, speaking, reading, and writing continue to be developed with an emphasis on the development of extensive vocabulary and complex grammatical forms. Cultural competencies are developed through readings, presentations, and discussions. At the completion of a Level 3 course, the majority of students are expected to perform at the Novice-High to Intermediate-Low range of language proficiency. Students enrolled in these courses are expected to communicate primarily in the target language in class.</p>	

*In Level 3 Chinese, exposure of adapted authentic texts will complement the interpretive skill of the spoken and written Chinese language. Writing in either traditional or simplified characters will be further developed through increased regular practice. This course engages students in an exploration of both contemporary and historical Chinese culture.

CHINESE 3 HONORS (530)

Prerequisite: Successful completion of Chinese 2.

5 Credits
Full Year
Grades 9-12

Completion of a summer assignment is required for this course.

The goal of Level 3 Honors courses is for students to be able to spontaneously produce the target language using strings of sentences and to be able to ask and answer questions to handle transactions of everyday life. Emphasis is placed on understanding and using complex grammatical forms and on the acquisition of extensive vocabulary. Students continue to develop proficiency in the four language domains: listening, speaking, reading, and writing and to develop linguistic and cultural competence through the sequential building of interpretive, interpersonal, and presentational skills. At this level, students are challenged with more intensive and extensive communicative experiences. At the completion of a Level 3 Honors course, the majority of students are expected to perform at the Intermediate-Low to Intermediate-Mid range of language proficiency. Students enrolled in these courses are expected to communicate in the target language in class.

*Chinese 3 Honors: Reading of advanced texts written in colloquial Chinese will enhance the student's mastery of both written Chinese and the grammar and syntax of the spoken language. Character writing will be further developed through increased practice and training. The course engages students in an exploration of both contemporary and historical Chinese culture.

CHINESE 4 CP (544)

Prerequisite: Successful completion of Chinese 3.

5 Credits
Full Year
Grades 9-12

The goals of Level 4 courses are for students to be able to communicate and produce the target language by using strings of sentences and simple paragraphs, to ask and answer questions, offer opinions, summarize, compare and contrast and perform oral or written simple analysis on a given topic. The fourth level of language study is based on activities that develop proficiency in the four language domains: listening, speaking, reading, and writing. There is extensive study of culture and the development of literacy skills (reading and writing) at this level. Communicative competence and extensive cultural knowledge are developed through the sequential building of the interpretive, interpersonal, and presentational modes of communication. At the completion of a Level 4 course, the majority of students are expected to perform at the Intermediate-Low to Intermediate-Mid range of language proficiency. Students enrolled in these courses are expected to communicate primarily in the target language in class.

*In Level 4 Chinese, exposure of adapted authentic texts will complement the interpretive skill of the spoken and written Chinese language. Writing and typing in either traditional or simplified characters will be further developed through increased regular practice. Language proficiency will be further developed to enable students to successfully speak about a variety of uncomplicated, basic, and

communicative topics and social situations. This course engages students in an exploration of both contemporary and historical Chinese culture.

CHINESE 4 HONORS (545)

Prerequisite: Successful completion of Chinese 3.

5 Credits

Full Year

Grades 9-12

Completion of a summer assignment is required for this course.

The goals of the Level 4 Honors courses are for students to be able to use complex grammatical forms to discuss cultural concepts and to be able to spontaneously discuss opinions and other abstract ideas. This course focuses on the acquisition of extensive vocabulary, the in-depth study of culture, the development of literacy skills (listening, speaking, reading, and writing), and preliminary preparation for the Advanced Placement course. All learning activities are designed to further develop communicative competence in the three modes of communication: interpretive, interpersonal, and presentational. At the completion of a Level 4 Honors course, the majority of students are expected to perform at the Intermediate-Mid to Intermediate-High range of language proficiency. Students enrolled in these courses are expected to communicate in the target language in class.

*Chinese 4 Honors: Reading of advanced texts written in colloquial Chinese will enhance the student's mastery of both written Chinese and the grammar and syntax of the spoken language. Character writing will be further developed through extensive training and practice. The course engages students in an exploration of both contemporary and historical Chinese culture.

AP CHINESE (550)

Prerequisite: Successful completion of Chinese 4.

5 Credits

Full Year

Grades 10-12

Completion of a summer assignment is required for this course.

Advanced Placement Language and Culture course is designed for the students who wish to receive credit or advanced standing in college. The course prepares students to take the Advanced Placement exam in Chinese. Students who enroll should possess a solid command of grammar and competence in listening, speaking, reading and writing the target language. AP courses reflect interest in the arts, current events, literature and sports shared by the students and teacher. Extensive training in the organization and writing of compositions is included. At the completion of an Advanced Placement course, the majority of students are expected to perform at the Intermediate-High to Advanced-Low range of language proficiency. Students enrolled in these courses are expected to communicate in the target language in class. It is expected that all students take the AP exam in May.

French Language Courses

FRENCH 1 CP (513) Prerequisite: None.	5 Credits Full Year Grades 9-12
<p>The goal of Level 1 courses is for students to be able to communicate in the target language using words, lists, memorized phrases and simple sentences. Level 1 courses are the foundation courses in which basic communication skills pertaining to everyday topics are learned. Students are introduced to the four basic language domains of listening, speaking, reading, and writing through the use of active learning strategies, media, and technology. Basic language usage and cultural awareness are developed through the sequential building of vocabulary and basic grammatical concepts. At the completion of a Level 1 course, the majority of students are expected to perform in the Novice-Mid to Novice-High range of language proficiency. Students enrolled in these courses are expected to participate in the target language activities in class.</p>	

FRENCH 2 CP (523) Prerequisite: Successful completion of French 1.	5 Credits Full Year Grades 9-12
<p>The goals of Level 2 courses are for students to be able to communicate in the target language in simple sentences and to handle simple transactions related to everyday life. The four language domains of listening, speaking, reading, and writing continue to be developed with an emphasis on expanding vocabulary and improving the student's ability to understand and use important grammatical concepts. Language usage and cultural knowledge continue to be developed through the sequential building of the interpretive, interpersonal, and presentational modes of communication. At the completion of a Level 2 course, the majority of students are expected to perform in the Novice-High range of language proficiency. Students enrolled in these courses are expected to communicate primarily in the target language in class.</p>	

FRENCH 2 HONORS (524) Prerequisite: Successful completion of French 1.	5 Credits Full Year Grades 9-12
<p>Completion of a summer assignment is required for this course.</p> <p>The goal of the Level 2 Honors courses in French and Spanish is for students to achieve extensive language development in the areas of vocabulary usage, complex grammatical application and cultural knowledge. Honors courses are recommended for students who want to be challenged in a more competitive environment. At this level, there is an emphasis on building communicative competence in the four language domains: listening, speaking, reading, and writing, and developing emergent linguistic and cultural literacy in the target language. At the completion of a Level 2 Honors course, the majority of students are expected to perform at the Novice-High to Intermediate-Low range of language proficiency. Students enrolled in these courses are expected to communicate in the target language in class.</p>	

FRENCH 3 CP (533) Prerequisite: Successful completion of French 2.	5 Credits Full Year Grades 9-12
<p>The goals of Level 3 courses are for students to be able to communicate in the target language using strings of sentences and to ask and answer questions to handle transactions of everyday life. The four language domains of listening, speaking, reading, and writing continue to be developed with an emphasis on the development of extensive vocabulary and complex grammatical forms. Cultural competencies are developed through readings, presentations and discussions. At the completion of a Level 3 course, the majority of students are expected to perform at the Novice-High to Intermediate-Low range of language proficiency. Students enrolled in these courses are expected to communicate primarily in the target language in class.</p>	

FRENCH 3 HONORS (537) Prerequisite: Successful completion of French 2.	5 Credits Full Year Grades 9-12
<p>Completion of a summer assignment is required for this course.</p> <p>The goals of Level 3 Honors courses are for students to be able to spontaneously produce the target language using strings of sentences and to be able to ask and answer questions to handle transactions of everyday life. Emphasis is placed on understanding and using complex grammatical forms and on the acquisition of extensive vocabulary. Students continue to develop proficiency in the four language domains: listening, speaking, reading, and writing and to develop linguistic and cultural competence through the sequential building of interpretive, interpersonal, and presentational skills. At this level, students are challenged with more intensive and extensive communicative experiences. At the completion of a Level 3 Honors course, the majority of students are expected to perform at the Intermediate-Low to Intermediate-Mid range of language proficiency. Students enrolled in these courses are expected to communicate in the target language in class.</p>	

FRENCH 4 CP (543) Prerequisite: Successful completion of French 3.	5 Credits Full Year Grades 9-12
<p>The goals of Level 4 courses are for students to be able to communicate and produce the target language by using strings of sentences and simple paragraphs, to ask and answer questions, offer opinions, summarize, compare and contrast and perform oral or written simple analysis on a given topic. The fourth level of language study is based on activities that develop proficiency in the four language domains: listening, speaking, reading and writing. There is extensive study of culture and the development of literacy skills (listening, speaking, reading, and writing) at this level. Communicative competence and extensive cultural knowledge are developed through the sequential building of the interpretive, interpersonal, and presentational modes of communication. At the completion of a Level 4 course, the majority of students are expected to perform at the Intermediate-Low to Intermediate-Mid range of language proficiency. Students enrolled in these courses are expected to communicate primarily in the target language in class.</p>	

FRENCH 4 HONORS (547) Prerequisite: Successful completion of French 3.	5 Credits Full Year Grades 9-12
<p>Completion of a summer assignment is required for this course.</p> <p>The goals of the Level 4 Honors course are for students to be able to use complex grammatical forms to discuss cultural concepts and to be able to spontaneously discuss opinions and other abstract ideas. This course focuses on the acquisition of extensive vocabulary, the in-depth study of culture, the development of literacy skills (listening, speaking, reading, and writing), and preliminary preparation for the Advanced Placement course. All learning activities are designed to further develop communicative competence in the three modes of communication: interpretive, interpersonal, and presentational modes. At the completion of a Level 4 Honors course, the majority of students are expected to perform at the Intermediate-Mid to Intermediate-High range of language proficiency. Students enrolled in these courses are expected to communicate in the target language in class.</p>	

FRENCH 5 CP (555) Prerequisite: Successful completion of French 4.	5 Credits Full Year Grades 9-12
<p>The goals of the Level 5 course are for students to be able to further develop proficiency in the interpretive, interpersonal, and presentational modes of communication at a pre-advanced level. Students research and present projects on topics of current interest to sharpen and build their communicative skills in the language domains of listening, speaking, reading, and writing. Current topics of interest are researched and discussed through various media that include technology, websites, books, videos, and other authentic print and non-print materials. At the completion of a Level 5 course, the majority of students are expected to perform at the Intermediate-Mid to Intermediate-High range of language proficiency. Students enrolled in these courses are expected to communicate in the target language in class.</p>	

AP FRENCH (553) Prerequisite: Successful completion of the French 4.	5 Credits Full Year Grades 10-12
<p>Completion of a summer assignment is required for this course.</p> <p>Advanced Placement Language and Culture courses are designed for students who wish to receive credit or advanced standing in college. This course prepares students to take the Advanced Placement exam in French. Students who enroll should possess a solid command of grammar and competence in listening, speaking, reading, and writing the target language. AP courses reflect interest in the arts, current events, literature, and sports shared by the students and teacher. Extensive training in the organization and writing of compositions is included. At the completion of an Advanced Placement course, the majority of students are expected to perform at the Intermediate-High to Advanced-Low range of language proficiency. Students enrolled in these courses are expected to communicate in the target language in class. It is expected that all students take the AP exam in May.</p>	

Italian Language Courses

ITALIAN 1 CP (511) Prerequisite: None.	5 Credits Full Year Grades 9-12
<p>The goal of Level 1 courses is for students to be able to communicate in the target language using words, lists, memorized phrases and simple sentences. Level 1 courses are the foundation courses in which basic communication skills pertaining to everyday topics are learned. Students are introduced to the four basic language domains of listening, speaking, reading, and writing through the use of active learning strategies, media, and technology. Basic language usage and cultural awareness are developed through the sequential building of vocabulary and basic grammatical concepts. At the completion of a Level 1 course, the majority of students are expected to perform at the Novice-Mid to Novice-High range of language proficiency. Students enrolled in these courses are expected to participate in the target language activities in class.</p>	

ITALIAN 2 CP (521) Prerequisite: Successful completion of Italian 1.	5 Credits Full Year Grades 9-12
<p>The goals of Level 2 courses are for students to be able to communicate in the target language in simple sentences and to handle simple transactions related to everyday life. The four language domains of listening, speaking, reading, and writing continue to be developed with an emphasis on expanding vocabulary and improving the student's ability to understand and use important grammatical concepts. Language usage and cultural knowledge continue to be developed through the sequential building of the interpretive, interpersonal, and presentational modes of communication. At the completion of a Level 2 course, the majority of students are expected to perform at the Novice-High range of language proficiency. Students enrolled in these courses are expected to communicate primarily in the target language in class.</p>	

ITALIAN 3 CP (531) Prerequisite: Successful completion of Italian 2.	5 Credits Full Year Grades 9-12
<p>The goals of Level 3 courses are for students to be able to communicate in the target language using strings of sentences and to ask and answer questions to handle transactions of everyday life. The four language domains of listening, speaking, reading, and writing continue to be developed with an emphasis on the development of extensive vocabulary and complex grammatical forms. Cultural competencies are developed through readings, presentations, and discussions. At the completion of a Level 3 course, the majority of students are expected to perform at the Novice-High to Intermediate-Low range of language proficiency. Students enrolled in these courses are expected to communicate primarily in the target language in class.</p>	

ITALIAN 3 HONORS (540) Prerequisite: Successful completion of Italian 2.	5 Credits Full Year Grades 9-12
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Completion of a summer assignment is required for this course.

The goals of Level 3 Honors courses are for students to be able to spontaneously produce the target language using strings of sentences and to be able to ask and answer questions to handle transactions of everyday life. Emphasis is placed on understanding and using complex grammatical forms and on the acquisition of extensive vocabulary. Students continue to develop proficiency in the four language domains: listening, speaking, reading, and writing and to develop linguistic and cultural competence through the sequential building of interpretive, interpersonal, and presentational skills. At this level, students are challenged with more intensive and extensive communicative experiences. At the completion of a Level 3 Honors course, the majority of students are expected to perform at the Intermediate-Low to Intermediate-Mid range of language proficiency. Students enrolled in these courses are expected to communicate in the target language in class.

ITALIAN 4 CP (548)**Prerequisite: Successful completion of Italian 3.****5 Credits
Full Year
Grades 9-12**

The goals of Level 4 courses are for students to be able to communicate and produce the target language by using strings of sentences and simple paragraphs, to ask and answer questions, offer opinions, summarize, compare, contrast, and perform oral or written simple analysis on a given topic. The fourth level of language study is based on activities that develop proficiency in the four language domains: listening, speaking, reading, and writing. There is extensive study of culture and the development of literacy skills (listening, speaking, reading and writing) at this level. Communicative competence and extensive cultural knowledge are developed through the sequential building of the interpretive, interpersonal, and presentational modes of communication. At the completion of a Level 4 course, the majority of students are expected to perform at the Intermediate-Low to Intermediate-Mid range of language proficiency. Students enrolled in these courses are expected to communicate primarily in the target language in class.

ITALIAN 4 HONORS (541)**Prerequisite: Successful completion of Italian 3.****5 Credits
Full Year
Grades 9-12****Completion of a summer assignment is required for this course.**

The goals of the Level 4 Honors course are for students to be able to use complex grammatical forms to discuss cultural concepts and to be able to spontaneously discuss opinions and other abstract ideas. This course focuses on the acquisition of extensive vocabulary, the in-depth study of culture, the development of literacy skills (listening, speaking, reading, and writing), and preliminary preparation for the Advanced Placement course. All learning activities are designed to further develop communicative competence in the three modes of communication: interpretive, interpersonal, and presentational. At the completion of a Level 4 Honors course, the majority of students are expected to perform at the Intermediate-Mid to Intermediate-High range of language proficiency. Students enrolled in these courses are expected to communicate in the target language in class.

ITALIAN 5 CP (558)**Prerequisite: Successful completion of the Italian 4.****5 Credits
Full Year
Grades 9-12**

The goals of the Level 5 course are for students to be able to further develop proficiency in the interpretive, interpersonal, and presentational modes of communication at a pre-advanced level. Students research and present projects on topics of current interest to sharpen and build their communicative skills in the language domains of listening, speaking, reading, and writing. Current topics of interest are researched and discussed through various media that include technology, websites, books, videos, and other authentic print and non-print materials. At the completion of a Level 5 course, the majority of students are expected to perform at the Intermediate-Mid to Intermediate-High range of language proficiency. Students enrolled in these courses are expected to communicate in the target language in class.

AP ITALIAN AP (551)

Prerequisite: Successful completion of the Italian 4.

5 Credits
Full Year
Grades 10-12

Completion of a summer assignment is required for this course.

Advanced Placement Language and Culture courses are designed for students who wish to receive credit or advanced standing in college. This course prepares students to take the Advanced Placement exam in Italian. Students who enroll should possess a solid command of grammar and competence in listening, speaking, reading, and writing the target language. AP courses reflect interest in the arts, current events, literature, and sports shared by the students and teacher. Extensive training in the organization and writing of compositions is included. At the completion of an Advanced Placement course, the majority of students are expected to perform at the Intermediate-High to Advanced-Low range of language proficiency. Students enrolled in these courses are expected to communicate in the target language in class. It is expected that all students take the AP exam in May.

Spanish Language Courses

INTRODUCTION TO SPANISH (519) Prerequisite: This course is assigned at the recommendation of the Child Study Team.	5 Credits Full Year Grades 9-12
<p>Introduction to Spanish is a full-year course designed to meet the World Languages graduation requirement. Emphasis is placed on the communicative introductory skills of listening and speaking. Cultural awareness is an important element of this course. Interdisciplinary strands are included in order to expand and enhance the student's knowledge base in both the English and Spanish languages. Students enrolled in this course are expected to participate in communicative activities in class.</p>	

SPANISH 1 CP (512) Prerequisite: None.	5 Credits Full Year Grades 9-12
<p>The goal of Level 1 courses is for students to be able to communicate in the target language using words, lists, memorized phrases and simple sentences. Level 1 courses are the foundation courses in which basic communication skills pertaining to everyday topics are learned. Students are introduced to the four basic language domains of listening, speaking, reading, and writing through the use of active learning strategies, media and technology. Basic language usage and cultural awareness are developed through the sequential building of vocabulary and basic grammatical concepts. At the completion of a Level 1 course, the majority of students are expected to perform at the Novice-Mid to Novice-High range of language proficiency. Students enrolled in these courses are expected to participate in the target language activities in class.</p>	

SPANISH COMMUNICATION & CULTURES CP (526) Prerequisite: Successful completion of Spanish 1.	5 Credits Full Year Grades 10-12
<p>The Spanish Communication and Cultures course is designed for students who may need additional support in language skill development in the four basic language domains of listening, speaking, reading, and writing. It reviews and expands upon the concepts learned in Spanish 1 to solidify and promote a deeper understanding of the basic language usage, cultural awareness and products, practices, and perspectives of the Spanish speakers across the globe. At the completion of this course, the majority of students are expected to perform at the Novice-Mid to Novice-High range of language proficiency.</p>	

SPANISH 2 CP (522) Prerequisite: Successful completion of a Spanish 1.	5 Credits Full Year Grades 9-12
<p>The goals of Level 2 courses are for students to be able to communicate in the target language in simple sentences and to handle simple transactions related to everyday life. The four language domains of listening, speaking, reading, and writing continue to be developed with an emphasis on expanding vocabulary and improving the student's ability to understand and use important grammatical concepts. Language usage and cultural knowledge continue to be developed through the</p>	

sequential building of the interpretive, interpersonal, and presentational modes of communication. At the completion of a Level 2 course, the majority of students are expected to perform at the Novice-High range of language proficiency. Students enrolled in these courses are expected to communicate primarily in the target language in class.

SPANISH 2 HONORS (525)

Prerequisite: Successful completion of Spanish 1 course.

5 Credits
Full Year
Grades 9-12

Completion of a summer assignment is required for this course.

The goal of the Level 2 Honors courses is for students to achieve extensive language development in the areas of vocabulary usage, complex grammatical application and cultural knowledge. Honors courses are recommended for students who want to be challenged in a more competitive environment. At this level, there is an emphasis on building communicative competence in the four language domains: listening, speaking, reading, and writing, and developing emergent linguistic and cultural literacy in the target language. At the completion of a Level 2 Honors course, the majority of students are expected to perform at the Novice-High to Intermediate-Low range of language proficiency. Students enrolled in these courses are expected to communicate in the target language in class.

SPANISH 3 CP (532)

Prerequisite: Successful completion of a Spanish 2.

5 Credits
Full Year
Grades 9-12

The goals of Level 3 courses are for students to be able to communicate in the target language using strings of sentences and to ask and answer questions to handle transactions of everyday life. The four language domains of listening, speaking, reading, and writing continue to be developed with an emphasis on the development of extensive vocabulary and complex grammatical forms. Cultural competencies are developed through readings, presentations, and discussions. At the completion of a Level 3 course, the majority of students are expected to perform at the Novice-High to Intermediate-Low range of language proficiency. Students enrolled in these courses are expected to communicate primarily in the target language in class.

SPANISH 3 HONORS (536)

Prerequisite: Successful completion of Spanish 2.

5 Credits
Full Year
Grades 9-12

Completion of a summer assignment is required for this course.

The goals of Level 3 Honors courses are for students to be able to spontaneously produce the target language using strings of sentences and to be able to ask and answer questions to handle transactions of everyday life. Emphasis is placed on understanding and using complex grammatical forms and on the acquisition of extensive vocabulary. Students continue to develop proficiency in the four language domains: listening, speaking, reading, and writing and to develop linguistic and cultural competence through the sequential building of interpretive, interpersonal, and presentational modes of communication. At this level, students are challenged with more intensive and extensive communicative experiences. At the completion of a Level 3 Honors course, the majority of students

are expected to perform at the Intermediate-Low to Intermediate-Mid range of language proficiency. Students enrolled in these courses are expected to communicate in the target language in class.

SPANISH 4 CP (542)**Prerequisite: Successful completion of Spanish 3.****5 Credits
Full Year
Grades 9-12**

The goals of Level 4 courses are for students to be able to communicate and produce the target language by using strings of sentences and simple paragraphs, to ask and answer questions, offer opinions, summarize, compare, contrast, and perform oral or written simple analysis on a given topic. The fourth level of language study is based on activities that develop proficiency in the four language domains: listening, speaking, reading, and writing. There is extensive study of culture and the development of literacy skills at this level. Communicative competence and extensive cultural knowledge are developed through the sequential building of the interpretive, interpersonal, and presentational modes of communication. At the completion of a Level 4 course, the majority of students are expected to perform at the Intermediate-Low to Intermediate-Mid range of language proficiency. Students enrolled in these courses are expected to communicate primarily in the target language in class.

SPANISH 4 HONORS (546)**Prerequisite: Successful completion of Spanish 3.****5 Credits
Full Year
Grades 9-12****Completion of a summer assignment is required for this course.**

The goals of the Level 4 Honors course are for students to be able to use complex grammatical forms to discuss cultural concepts and to be able to spontaneously discuss opinions and other abstract ideas. This course focuses on the acquisition of extensive vocabulary, the in-depth study of culture, the development of literacy skills (listening, speaking, reading, and writing), and preliminary preparation for the Advanced Placement course. All learning activities are designed to further develop communicative competence in the three modes of communication: interpretive, interpersonal, and presentational. At the completion of a Level 4 Honors course, the majority of students are expected to perform at the Intermediate-Mid to Intermediate-High range of language proficiency. Students enrolled in these courses are expected to communicate in the target language in class.

SPANISH 5 CP (554)**Prerequisite: Successful completion of Spanish 4.****5 Credits
Full Year
Grades 9-12**

The goals of the Level 5 course are for students to be able to further develop proficiency in the interpretive, interpersonal, and presentational modes of communication at a pre-advanced level. Students research and present projects on topics of current interest to sharpen and build their communicative skills in the language domains of listening, speaking, reading, and writing. Current topics of interest are researched and discussed through various media that include technology, websites, books, videos, and other authentic print and non-print materials. At the completion of a Level 5 course, the majority of students are expected to perform at the Intermediate-Mid to Intermediate-High range of language proficiency. Students enrolled in these courses are expected to communicate in the target language in class.

AP SPANISH (552) Prerequisite: Successful completion of Spanish 4.	5 Credits Full Year Grades 10-12
<p>Completion of a summer assignment is required for this course.</p> <p>Advanced Placement Language and Culture courses are designed for the students who wish to receive credit or advanced standing in college. This course prepares students to take the Advanced Placement exam in Spanish. Students who enroll should possess a solid command of grammar and competence in listening, speaking, reading and writing the target language. AP courses reflect interest in the arts, current events, literature, and sports shared by the students and teacher. Extensive training in the organization and writing of compositions is included. At the completion of an Advanced Placement course, the majority of students are expected to perform at the Intermediate-High to Advanced-Low range of language proficiency. Students enrolled in these courses are expected to communicate in the target language in class. It is expected that all students take the AP exam in May.</p>	

English as a Second Language Courses

ENGLISH AS A SECOND LANGUAGE 1 (501) Prerequisite: Placement test and ESL teacher recommendation.	5 Credits Full Year Grades 9-12
This course is offered in place of the English course sequence for students whose native language is not English and whose English language proficiency level ranges from beginner (entering) through emerging as determined by a State-approved placement test. Advanced students of ESL may also follow the English course sequence as an elective. A modified program consisting of two periods of ESL each day is offered to students requiring intensive ESL.	

ENGLISH AS A SECOND LANGUAGE 2 (502) Prerequisite: Placement test and ESL teacher recommendation.	5 Credits Full Year Grades 9-12
This course is offered in place of the English course sequence for students whose native language is not English and whose English language proficiency level ranges from beginner (emerging) through intermediate (developing) as determined by a State-approved placement test. Advanced students of ESL may also follow the English course sequence as an elective. A modified program consisting of two periods of ESL each day is offered to students requiring intensive ESL.	

ENGLISH AS A SECOND LANGUAGE 3 (503) Prerequisite: Placement test and ESL teacher recommendation.	5 Credits Full Year Grades 9-12
This course is offered in place of the English course sequence for students whose native language is not English and whose English language proficiency level ranges from advanced (developing) through expanding as determined by a State-approved placement test. Advanced students of ESL may also follow the English course sequence as an elective. A modified program consisting of two periods of ESL each day is offered to students requiring intensive ESL.	

ENGLISH AS A SECOND LANGUAGE 4 (504) Prerequisite: Placement test and ESL teacher recommendation.	5 Credits Full Year Grades 9-12
This course is offered in place of the English course sequence for students whose native language is not English and whose English language proficiency level ranges from advanced (expanding) through bridging as determined by a State-approved placement test. Advanced students of ESL may also follow the English course sequence as an elective. A modified program consisting of two periods of ESL each day is offered to students requiring intensive ESL.	

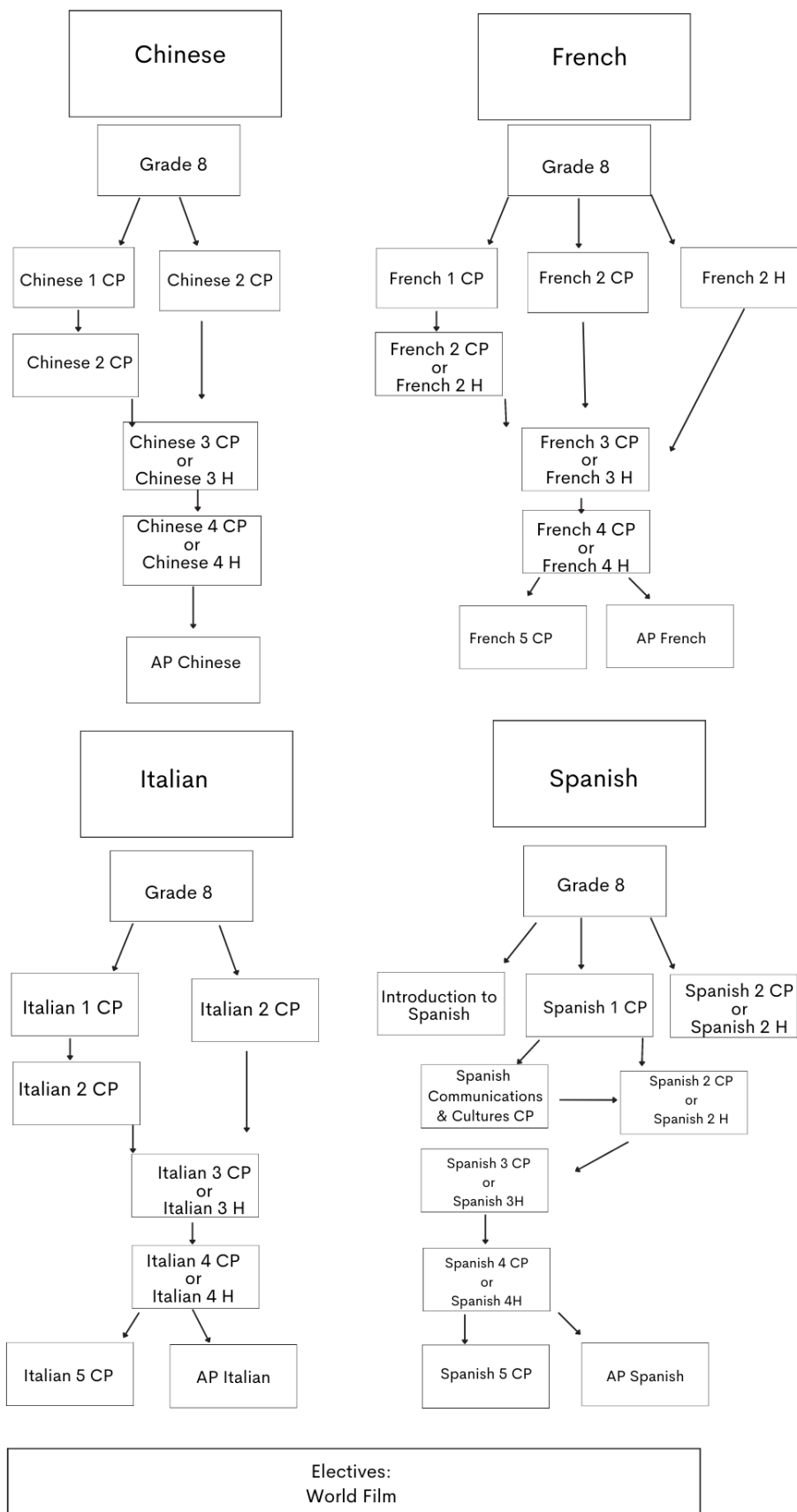
ENGLISH AS A SECOND LANGUAGE LAB (505) Prerequisite: Placement test and ESL teacher recommendation.	5 Credits Full Year Grades 9-12
This course is offered as a second period ESL reading or tutorial class in place of the English course sequence for students whose native language is not English and whose English language proficiency	

level ranges from beginner (entering) through advanced (bridging) as determined by a State-approved placement test. Students requiring a second period of ESL are recommended to take ESL Lab. Advanced students of ESL may also follow the English course sequence as an elective.

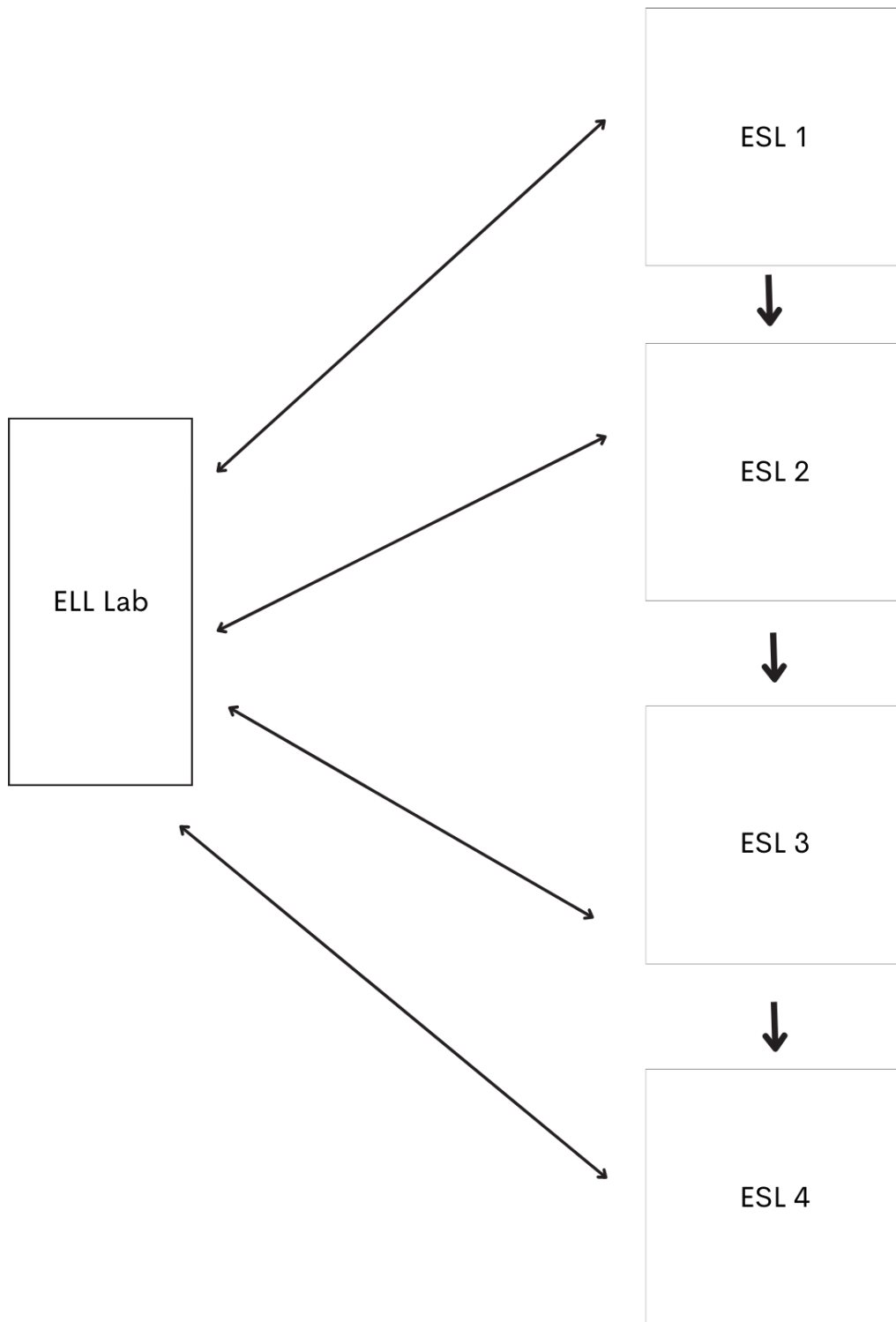
World Language Elective Courses

WORLD FILM (138)	5 Credits
Prerequisite: Successful completion of English 2.	Full Year
	Grades 11-12
The World Film course is for students who are interested in world film as an art form, not just as a means for entertainment. Students explore film/cinema from an artistic, technical, social, historical, and analytical point of view. A part of the course includes analytical writing projects that are assigned as homework and independent research.	

Course Sequence for World Language



Course Sequence for English as a Second Language



Appendix

AP Capstone Program

[AP Capstone™](#) is a diploma program from the College Board based on two year long AP courses: AP Seminar and AP Research. Rather than teaching subject-specific content, these courses develop students' skills in research, analysis, evidence-based arguments, collaboration, writing, and presenting. Students who complete the two-year program can earn one of two different AP Capstone awards, which are valued by colleges across the United States and around the world.

AP Seminar

+

AP Research

Computer/Software Applications Courses

Course Name	Department
Creative Photography 1 Creative Photography 2 AP Creative Photography	Art
Digital Imaging 1 Digital Imaging 2 AP Digital Imaging	Art
Television Production Advanced Television Production AM Wired	Art
Computer Applications	Business
Microsoft Office Specialist	Business
Web Design	Business
Music Technology 1 Music Technology 2	Music
Visual/Graphic Communications 1 Visual/Graphic Communications 2	Technology, Design, & Engineering
Introduction to Computer Assisted Design Architecture CAD 2 Engineering & Product Design CAD 2	Technology, Design, & Engineering

Interdisciplinary Courses

The following courses offer an opportunity for interdisciplinary experiences that allow students to integrate the knowledge, concepts, and skills of multiple disciplines. This experience will broaden students' understanding of a variety of topics as they explore the natural connections and relationships of the respective subject areas.

Course Title
Theatre Arts 1, Theatre Arts 2
Dance
English 1 Humanities CP & Honors
English 2 Humanities CP & Honors
English 3 Humanities CP & Honors
Biotechnology
Introduction to Research Methods Honors
AP Seminar
AP Research
Modern World History Humanities CP & Honors
US History 1 Humanities CP & Honors
US History 2 Humanities CP & Honors
World Film

Programming/Coding Courses

The following courses offer technology integration within the content of the course and provide cross-curricular opportunities to broaden students' understanding and experience of computer and technological literacy.

Course Name	Department
Computer Programming	Math
Explorations in Data Science & Python	Math
Electrical/Computer Science Engineering	Technology, Design, & Engineering
Robotics	Technology, Design, & Engineering
AP Computer Science Principles	Technology, Design & Engineering
AP Computer Science A	Math

Three Year Research Elective

The Science Research Program at Livingston High School is a three-year sequence of courses that starts with Introduction to Research Methods Honors in the 10th grade.

10th Grade	Introduction to Research Methods
11th Grade	Intermediate Science Research Methods Honors
12th Grade	Advanced Science Research Methods Honors

Theatre Arts Pathway

Students interested in completing the TAP! Pathway will successfully complete the following requirements:

Requirement A

All three to be taken over the course of four years
The following three courses must be successfully completed:
Speech and Drama
Theatre Arts 1
Stagecraft 1

Requirement B

Two to be taken over the course of four years
Choose two additional courses and successfully complete:
Chorus
Creative Writing
Dance (One semester course to replace PD)
Mural Painting
Music Theory (CP or AP)
Piano
Public Speaking and Debate
Stagecraft 2
Theatre Arts 2

Requirement C

Over the course of four years
Participation in the LHS Fall Drama and/or the Spring Musical -
At least three of the eight productions during the student's high school years

***All three requirements (A, B, and C) must be fulfilled in order to successfully complete the TAP! Pathway and receive a certificate.**