

# PRINCETON HIGH SCHOOL

## Program of Study



Grades 9-12  
2023-2024

# **PRINCETON HIGH SCHOOL**

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**NOTE:**

Traditionally, Princeton High School offers a comprehensive program of studies. Final decisions regarding the actual offering of any course for the upcoming school year will depend upon enrollment and budget constraints. Therefore, not all courses listed in this catalog are guaranteed to run every school year nor are students guaranteed spots in classes.

## **INTRODUCTION**

This catalog is a reference manual for students, parents, and school personnel actively involved in curriculum planning at Princeton High School. It is a complete guide to the possible course offerings at Princeton High School. Each department has described its specific course offerings, highlighting the chief components of each course, as well as prerequisites for enrollment.

## **DISTRICT AFFIRMATIVE ACTION POLICY**

As delineated by Title IX of the Education Amendments of 1972 and New Jersey Administrative Code 6A:7, it is the policy of the Princeton Public Schools not to discriminate based on gender, race, color, creed, religion, ancestry, national origin, age, marital, social, or economic status, disability, or sexual identity or expression in its educational programs, school activities and employment policies.

Each school in our district has a copy of the District Affirmative Action Plan located in the office of the principal. A grievance procedure for alleged violations of this policy, including issues related to sexual harassment, has also been established as part of this plan.

## **SEXUAL HARASSMENT**

The Princeton Public School Board of Education seeks to provide a working and learning environment free from sexual harassment. It will be, then, a violation of this policy for students or staff members to harass other students or staff through conduct or communication of a sexual nature.

Any student or staff member who believes that he or she is a victim of sexual harassment should contact the building principal immediately.

## **HARASSMENT, INTIMIDATION AND BULLYING**

The New Jersey State definition of Harassment, Intimidation or Bullying is as follows:

“Harassment, Intimidation or Bullying” is defined as any gesture, any written, verbal or physical act, or any electronic communication that is reasonably perceived as being motivated either by any actual or perceived difference or characteristic, such as race, color, religion, gender, a mental, physical or sensory disability, sexual orientation, gender identity or expression, national origin or ancestry, or by any other distinguishing characteristic, that takes place on school grounds, at any school-sponsored function, on a school bus and that, or off school grounds; including via social media, that substantially disrupts or interferes with the orderly operation of the school or the rights of other students and that:

1. A reasonable person should know, under the circumstances, will have the effect of physically or emotionally harming a pupil or damaging the pupil’s property, or placing a pupil in reasonable fear of physical or emotional harm to his/her person or damage to his/her property.
2. Has the effect of insulting or demeaning any pupil or group of pupils.
3. Creates a hostile educational environment for the student by interfering with a student’s education or by severely or pervasively causing physical or emotional harm to the student.

In addition to the State definition, the Princeton Public Schools Board of Education has determined that Harassment, Intimidation and Bullying also includes any act by a student toward another student which may be reasonably perceived as, or as having the effect of, one student attempting to exercise power or control over another student so as to deprive that student of his/her freedom from fear, or right to have his/her individual dignity respected.

## **EQUAL EDUCATIONAL OPPORTUNITY**

The Princeton Public School’s Board of Education affirms its policy to ensure equal educational opportunity for all students and to prohibit discrimination because of sex, race, color, creed, religion, ancestry, national origin, sexual

orientation, social/economic status, parenthood, marital status, and disability in the educational programs and activities, including but not limited to course offerings, athletic programs, school counseling, tests and procedures, and vocational education opportunities through an Affirmative Action Program which shall be an integral part of every aspect of educational policies and programs.

### **SECTION 504/AMERICANS WITH DISABILITIES ACT (ADA)**

As delineated by Section 504 of the Rehabilitation Act of 1973 and the ADA of 1990, it is the policy of the Princeton Public Schools not to discriminate based on a disability in its admissions and employment policies and procedures.

### **PLANNING A PROGRAM OF STUDY**

Planning an appropriate program of study involves a collaborative effort between home and school. A student's selection of courses should be based on careful consideration of the student's aptitudes and abilities, personal interests and career aspirations.

In selecting a course of study, it is recommended that the following points be considered:

- Courses fulfill local graduation requirements.
- Prerequisite for a course has been met or exceeded.
- Courses are intellectually stimulating and personally enriching.
- Courses are relevant to post-graduate plans.
- Courses, not instructors, are chosen. Requests for schedule changes based on personnel issues will not be honored.
- Selected courses are discussed with those who can provide valuable insight, such as teachers, subject area supervisors and school counselors.
- Make good decisions about overall course load keeping the following factors in mind:
  - homework/assignment/project/independent work demands (AP and accelerated courses will have higher demands than other courses).
  - sport/extracurricular involvement and commitments after school that may take away from study/homework time
  - number of AP & accelerated courses (these courses will take up a lot of time, and therefore, students should select courses that keep their overall wellbeing in mind while maintaining a healthy balance).
- Make sound initial choices. You will have a course verification in June – changes after this point will be very difficult.

### **MINIMUM SCHEDULING REQUIREMENTS**

It is recommended that every Princeton High School student carry a minimum of 30 credits per year to meet the 120-credit requirement for graduation. Semester courses can run first and/or second semester, depending upon the number of student requests for enrollment.

### **GRADUATION REQUIREMENTS**

For a student to graduate from Princeton High School and receive the state endorsed Princeton Public Schools Board of Education diploma, each student must:

A. Demonstrate a minimum proficiency required by the state in language arts literacy and mathematics by means of subject specific NJSLA assessments, a Substitute Competency Test, or meet the criteria of the NJDOE Portfolio Appeal.

And

B. Successfully complete a minimum of 120 credits. The course work must include the following course requirements:

- |  |  |
|--|--|
| 1. English:  | 20 credits   |
| 2. Mathematics:  | 15 credits, including content equivalent to Algebra I and Geometry   |
| 3. Science:  | 15 credits, including content equivalent to Biology, and 2 additional laboratories/inquiry-based science courses |
| 4. United States History:  | 10 credits   |
| 5. World History:  | 5 credits  |
| 6. World Languages:  | 5 credits or pupil demonstration of proficiency  |
| 7. Physical Education and Health and Safety:   | 5 credits for each year of public high school enrollment in New Jersey   |
| 8. Visual, Fine, and Performing Arts:  | 5 credits  |
| 9. 21 <sup>st</sup> Century Life & Careers or Technical:   | 5 credits  |
| 10. Financial, Economic & Business Literacy:   | 2.5 credits  |
| 11. Elective Courses:  | 17.5 credits   |
| 12. Career Awareness / Community Service Program:  | 10 <sup>th</sup> grade.  |
| 13. PIRL online - <b>P</b> rin <del>ce</del> ton <b>I</b> n <del>tr</del> oduction to <b>R</b> acial <b>L</b> iteracy (Class of 2025 and beyond) |  |

Or

Option II

Pursuant to N.J.A.C 6A:8-5.1(a)2 New Jersey high school graduation requirements may be met in whole or in part through the completion of a program of study that meets or exceeds the New Jersey Content Standards. The purpose of Option II is to provide students with meaningful and relevant educational experiences beyond the scope of the current school curriculum. Prior approval is required. A program model may include, but is not limited to, the following:

- Independent Study
- Online Learning
- Community Service/Service-Learning Projects
- Study Abroad and Student Exchange
- College Coursework
- Teacher’s Aide
- Other structured learning experiences

The Option II alternative program of study must receive prior approval of the Option II Committee, meet or exceed the standards set forth in the New Jersey Standards, and students must demonstrate satisfactory performance in order for credit to be awarded.

Participation in Option II programs is completely voluntary, and a student may choose to complete graduation requirements through the traditional curriculum offerings, Option II programs, or a combination of the two. It is understood that students and their parents/guardians will be responsible for all costs, transportation, and personal safety of students wishing to participate in Option II programs.

**GRADE COMPLETION REQUIREMENTS**

A high school student will be promoted to the next grade when he or she has completed the credits requirements listed in the chart below.

PROMOTION	NUMBER OF CREDITS REQUIRED
Promotion to grade 10	30 credits
Promotion to grade 11	60 credits
Promotion to grade 12	90 credits

## ELIGIBILITY FOR PARTICIPATION IN ATHLETICS

To be eligible for athletic competition, a student must fulfill the following credit requirements, which vary by grade level as follows:

First Semester:

9 <sup>th</sup> Grade	all students are eligible
10 <sup>th</sup> – 12 <sup>th</sup> Grade	a student must have passed 30 credits required by the State of New Jersey for graduation during the preceding academic year.

Second Semester:

9 <sup>th</sup> - 12 <sup>th</sup> Grades:	a student must have passed 15 credits required by the State of New Jersey for graduation at the close of the proceeding semester.
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Full year courses will be equated as one-half of the total credits to be gained for the full year to determine credits passed during the preceding semester.

### **Participation in College Athletics**

Students interested in participating in college athletic programs regulated by the National Collegiate Athletic Association (NCAA) must be certified through their Initial Eligibility Clearinghouse. Students must achieve a certain level of academic achievement in high school to participate in college athletics. Additional information may also be obtained at [www.eligibilitycenter.org/](http://www.eligibilitycenter.org/). Applications should be submitted no later than the summer after the junior year. Coaches, parents, and prospective athletes should work closely with the Counseling and Athletic Department on college admissions.

## COURSE LEVELS

There are two levels of courses used to calculate a student's weighted grade point average.

**Unweighted:** Any course not designated as an advanced, advanced placement course, an accelerated course, or a Princeton University Course.

**Weighted:** Any course designated with an AP, ACC, ADV, or PU. Grade point equivalents increase for grades earned in weighted courses. For example: Standard "B+" = 3.3, ACC "B+" = 4.3.

## AP COURSES

Princeton High School offers AP courses in almost every department. These courses are open to all students, with basic prerequisites and course sequence requirements. The pacing and sequence of the AP courses are designed with the expectation that students will take the AP exam(s) in the spring. Students who plan to take the AP exam will be informed of the registration process in September.

Financial assistance for AP exams is available. In addition, if students are seeking College Board accommodations, they must request these accommodations through their school counselor **12 weeks** prior to testing to allow College Board processing time.

## CLASS/COURSE TRANSFER

Since student schedules are developed after considerable deliberation by students, parents, teachers, and counselors, course withdrawal is discouraged. Students will have until **June 15, 2023**, to make adjustments in their course requests.

Classes will only be changed for the following reasons:

- Student has been scheduled for an incorrect class
- Course level change because of summer work/study
- Elective(s) changes are possible only if the new elective(s) is/are offered during the same period.

All other changes must adhere to the following:

1. No student will be permitted to drop a course after **September 29, 2023**, without the express written permission of the parent, teacher, department supervisor, director of counseling, and the principal, or his/her designee.
2. A student who withdraws from a course at any time up to **September 29, 2023**, will be removed from the class roster. No record of this withdrawal will appear on the student's permanent record.
3. A student who is allowed to withdraw from a year or semester course at any time after the deadline will be removed from the class roster. A record of Withdraw Pass (WP) or Withdraw Fail (WF) will be maintained throughout the remainder of the year and recorded on the student's permanent transcript.
4. Changing courses after the academic year has begun can often be very disruptive to a student's schedule. Thus, elective course changes will not be permitted if they interfere with academic courses already scheduled. No new elective additions may be added after **September 20<sup>th</sup>** for a semester course and **September 29<sup>th</sup>** for a full year course. Second semester elective additions may be added no later than the second week of the second semester. Additionally, the student is responsible for completing all missed work.
5. In all schedule changes, a drop/add form must be completed and signed by all involved parties. There must be an open seat in the requested course. The department supervisor must grant prior approval before a schedule change is initiated.
6. If a change in schedule is affected due to course level, it should be understood by all involved parties that grades previously received will follow the student to the new course. Grades in AP/Honors courses will not receive weighted credit once the course transfer is made.
7. **Advancing of a Course Level (mathematics, science, and world languages):** Advancement of course level allows a student to bypass a prerequisite course by pursuing a **pre-approved**, organized course of study at a recognized institution outside the school day or school year. A student may advance a course level in each sequence of courses found in mathematics, sciences (AP courses only) and world languages with the understanding that:
  - **A student follows advancement policies and procedures as set forth by the departments.** Please note that deadlines for advancement or placement may apply.
  - Priority for placement into courses is given to those students who have enrolled in the course through the regular scheduling process
  - Placement decisions are made at the building level by the supervisor in conjunction with the principal and are considered final.

### **SCHEDULING TIMELINE**

Course of Study Orientation for Parents will be held **January 19, 2023**, at 7:00 pm for rising ninth grade students.

Course of Study Orientation for Students at Princeton Middle School, Cranbury Middle School, Princeton Charter School and Princeton High School will be held in January.

Students (and parents if so desired) will meet with the counselor individually to register for courses during the months of February through March. Remember to choose courses wisely as initial low requests totals may lead to the cancellation of a course. **It is important to choose courses wisely and to make solid decisions during this appointment because not all course changes later in the process will be honored.**

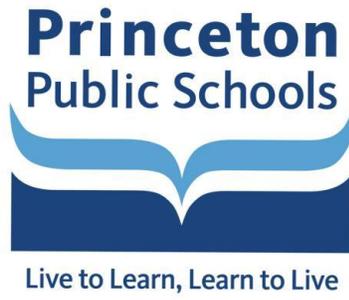
Initial course requests will be provided to students in **April 2023** to be verified by student and parent. Please contact the Counseling Office at 609-806-4282 immediately if any discrepancies are found. **Please note: All requests for course request changes must go through your school counselor within 10 days of the course request verification release.**

Final review of the teacher placement recommendations is due by **April 28, 2023**. The original course request will be changed to reflect the recommendation.

Class cancellation/class conflicts will be rectified on an ongoing basis once the master schedule is determined. Because of staffing and completion of the master schedule, requests for schedule or placement changes will not be honored after **June 15, 2023**.

Tests for approved advancement of course level will be given in **August 2023**.

Final schedules will be received by students before the first day of school. Please refer to the previously stated procedures for class and or course transfers.



## Visual and Performing Arts

Active participation in an arts program is a critical component in every child's education. Arts programs enrich students' lives and provide a vehicle for them to communicate and to express human emotion and ideas beyond the limits of language. In addition, study in the arts prepares students to be successful in a 21<sup>st</sup> century world that demands innovative thinking and creativity in an increasingly competitive global society. We believe that all students are capable of growth in the arts and that there are skills and concepts

inherent in the arts that cannot be taught in other disciplines. Participation in an arts program allows students to make connections across content areas and cultural boundaries. The courses listed below provide sequential instruction in each art discipline, challenging each student to reach his or her potential. **All courses listed in this department satisfy the Visual and Performing Arts requirement unless otherwise stated.**

### PROGRAM OPPORTUNITIES IN VISUAL ARTS

All students who are interested in visual art at PHS must first enroll in Studio Art I, our foundational course. For students who plan to take visual art classes for four years, the following sequence is suggested:

Studio Art I  
Studio Art II 2D or Studio Art II 3D or  
Art of Craft  
Studio Art III 2D or Studio Art III 3D  
Studio Art IV

Students may also wish to enroll in AP Art History during their junior or senior year.

**STUDIO ART I** **H74009**  
Grades: 9-12 5.0 Credits

This course is a full year studio experience that emphasizes the art process: learning to see, interpret, and make. Participants will work in both two- and three-dimensional formats on projects designed to improve technical skills and further develop personal expression. Students will be exposed to a range of materials and methods including but not limited to drawing, painting, printmaking, collage, carving, clay forming and glazing, and using a wide variety of sculptural materials. Visual presentations, demonstrations, critiques, and field trips will supplement the primarily hands-on studio course. Open to all, from beginners to experienced artists, this class is the prerequisite for all subsequent studio art classes at PHS.

**THE ART OF CRAFT** **H74007**  
Grades: 10-12 5.0 Credits  
*Prerequisite:* Studio Art I

This course is focused on making aesthetically functional objects. Students will explore the history and technique of various craft processes, both traditional and non-traditional, in two and three

dimensions. Students will work in a wide range of materials and with a variety of techniques, with approximately four projects per semester. This hands-on course utilizes videos, demonstrations, field trips, and previous student work as instructional supplements.

**STUDIO ART II (2D)** **H74001**  
Grades: 10-12 5.0 Credits  
*Prerequisite:* Studio Art I

This course will allow students to expand their technical and conceptual skills by utilizing the principles of two-dimensional media and design. Projects will build upon students' experience in Studio I through a widening range of materials and techniques. Emphasis will be placed on the development of each student's individual initiative and capacity for self-investigation and expression. Opportunities to display completed works at both in-school and outside-of-school exhibits will be provided. Those wishing to prepare an admissions portfolio for college or art school will be assisted and advised throughout this course.

**STUDIO ART III (2D)** **H74002**  
Grades: 11-12 5.0 Credits  
*Prerequisites:* Studio Art II (2D)

This course offers an intense and focused investigation into drawing and painting. The class is designed for the serious student who is motivated, disciplined, and intellectually mature. The course work is based upon the investigations in Studio II 2D and the first-year studio arts requirements at competitive art schools and/or universities that offer a BFA degree in studio art. This course emphasizes, in a coordinated and chronological way, the transition from teacher assignments to a student-generated conceptual

approach. Small group projects and individual works will be explored.

**STUDIO ART IV**

**H74003**

Grade: 12

5.0 Credits

*Prerequisite:* Three years of Studio Art (2D, 3D, or Art of Craft) or review of portfolio

Studio Art IV is the culminating visual arts course at Princeton High School. One purpose of the class is to prepare serious fine art students for admission to colleges, art schools, or universities through the creation and submission of a portfolio. Class work in the first semester is focused on reinforcing studio habits, techniques, and skills. The rest of the year is an ongoing process of individual and group artmaking and critique designed in a seminar format. Each student's individual artistic and developmental needs will be addressed; these needs form the basis for later studio assignments. Throughout the year, much emphasis will be placed on historical and contemporary arts issues. Trips to museums, galleries, and other out-of-school work will be planned. The year will culminate in the presentation of each student's individual portfolio and exhibit.

**STUDIO ART II (3D)**

**H74005**

Grades: 10-12

5.0 Credits

*Prerequisite:* Studio Art I

This course is for students who have successfully completed Studio Art I and wish to continue their study of sculpture on an advanced level. More in-depth assignments and processes will be introduced, and individual styles and interests will be encouraged and explored. Field trips, visiting artists, and slide/lectures will supplement this studio course. Opportunities to display completed works in a variety of settings will be offered and those wishing to prepare a college portfolio will be assisted and advised throughout the year.

**STUDIO ART III (3D)**

**H74007**

Grades: 11-12

5.0 credits

*Prerequisite:* Studio Art II (3D)

This course requires a high level of student interest and self-motivation in pursuing further exploration of 3D materials and methods, utilizing the skills and experience from the two previous 3D courses. Students will be expected to interpret the assigned projects both literally and metaphorically. Students will have the opportunity to include many mixed materials methods in their work, such as sound, light, found objects, and casting multiples. Art history from ancient through contemporary work will be studied and discussed. Individual and group critiques will be an integral part of this course. Field trips, videos, visiting artists, and slide lectures will supplement this primarily hands-on studio course.

**AP ART HISTORY**

**H74006**

Grades: 11-12

5.0 Credits

*Prerequisite:* Approval of the instructor and/or department supervisor

The AP Art History course welcomes students into the global art world to engage with its forms and content as they research, discuss, read, and write about art, artists, art making, and responses to and interpretations of art. By investigating specific course content of 250 works of art characterized by diverse artistic traditions from prehistory to the present, the students develop an in-depth, holistic understanding of the history of art from a global perspective. Students learn and apply skills of visual, contextual, and comparative analysis to engage with a variety of art forms, developing understanding of individual works and interconnections across history. The class is the equivalent of a two-semester introductory college or university art history survey course and is strongly recommended for students interested in any field of art, architecture, history, media, or visual culture.

**PROGRAM OPPORTUNITIES IN INSTRUMENTAL MUSIC**

**TIGER BAND I**

**H74010**

Grades: 9-12

5.0 Credits

*Prerequisite:* Placement audition is required.

Tiger Band I is a performing ensemble class for novice level students with limited experience in jazz repertoire. Students will concentrate on sight-reading as well as appropriate style playing including standard swing patterns and jazz articulations. Students will be introduced to all

major, Dorian, and mixolydian scales. Students will be introduced to jazz band literature that will promote student achievement and performance ability that is level appropriate. The literature and supplementary materials will promote a sequential development of the following skills: note reading, tone production, breath control, articulation, dynamics, phrasing, blend, balance, rhythmic analysis, music terminology, proper rehearsal, and performance etiquette.

**TIGER BAND II** **H74011**  
Grades: 9-12 5.0 Credits  
*Prerequisite:* Placement audition is required.

Tiger Band II is a performing ensemble class for novice level students having some prior experience with jazz repertoire. Students will concentrate on sight-reading as well as appropriate style playing including standard swing patterns and jazz articulations. Students will be introduced to all major, Dorian, mixolydian and blues scales. Students will be introduced to jazz band literature that will promote student achievement. The literature and supplementary materials will promote a sequential development of the following skills: note reading, tone production, breath control, articulation, dynamics, phrasing, blend, balance, rhythmic analysis, music terminology, proper rehearsal and performance etiquette.

**NASSAU BAND I** **H74012**  
Grades: 9-12 5.0 Credits  
*Prerequisite:* Placement audition is required.

Nassau Band I is a performing ensemble class for intermediate level students with limited experience in jazz repertoire. Students will concentrate on sight-reading as well as appropriate style playing, including standard swing patterns and jazz articulations. Students will be performing all major, Dorian, mixolydian and blues scales from memory. Students will be studying medium level jazz band literature that will promote student achievement and performance ability. The literature and supplementary materials will promote a sequential development of the following skills: note reading, tone production, breath control, articulation, dynamics, phrasing, blend, balance, rhythmic analysis, music terminology, proper rehearsal, and performance etiquette. In addition to the playing requirements, students in Nassau Band I will be introduced to chord theory and analysis as it pertains to their literature and as an introduction to improvisation.

**NASSAU BAND II** **H74013**  
Grades: 9-12 5.0 Credits  
*Prerequisite:* Placement audition is required.

Nassau Band II is a performing ensemble class for intermediate level students that have had prior experience with jazz repertoire. Students will concentrate on sight-reading as well as appropriate style playing including standard swing patterns and jazz articulations. Students will be performing all major, Dorian, mixolydian and blues scales from

memory. Students will be studying medium level jazz band literature that will promote student achievement and performance ability. The literature and supplementary materials will promote a sequential development of the following skills: note reading, tone production, breath control, articulation, dynamics, phrasing, blend, balance, rhythmic analysis, music terminology, proper rehearsal, and performance etiquette. In addition to the playing requirements, students in Nassau Band II will be introduced to chord theory and analysis as it pertains to their literature and as an introduction to improvisation.

**PHS JAZZ ENSEMBLE** **H74014**  
Grades: 9-12 5.0 Credits  
*Prerequisite:* Placement audition is required.

PHS Jazz Ensemble is a performing ensemble class for advanced students that have had prior experience with jazz repertoire. This group will perform at the big band dances held at Princeton High School as well as other community events. PHS Jazz Ensemble will also participate in a limited number of jazz festivals, which may include the New Jersey State Festival. Students will concentrate on sight-reading as well as appropriate style playing including swing patterns, several Latin styles and jazz articulations. Students will be performing all major, minor, Dorian, mixolydian and blues scales from memory. Students will be studying medium-advanced level jazz band literature that will promote student achievement and performance ability. The literature and supplementary materials will promote a sequential development of the following skills: note reading, tone production, breath control, articulation, dynamics, phrasing, blend, balance, rhythmic analysis, music terminology, proper rehearsal, and performance etiquette. In addition to the playing requirements, students in PHS Jazz Ensemble will study chord theory and analysis as it pertains to their literature and as part of their improvisation training.

**PRINCETON STUDIO BAND** **H74015**  
Grades: 9-12 5.0 Credits  
*Prerequisite:* Placement audition is required.

PHS Studio Band is a performing ensemble class for advanced students that have had prior experience with jazz repertoire. This group will perform at the big band dances held at Princeton High School as well as other community events. PHS Studio Band will also participate in a limited number of jazz festivals, which may include the NJ

State Festival. Students will concentrate on sight-reading as well as appropriate style playing including swing patterns, several Latin styles and jazz articulations. Students will be performing all major, minor, Dorian, mixolydian and blues scales from memory. Students will be studying advanced level jazz band literature that will promote student achievement and performance ability. The literature and supplementary materials will promote a sequential development of the following skills: note reading, tone production, breath control, articulation, dynamics, phrasing, blend, balance, rhythmic analysis, music terminology, proper rehearsal, and performance etiquette. In addition to the playing requirements, students in PHS Studio Band will study chord theory and analysis as it pertains to their literature and as part of their improvisation training.

**REPERTOIRE ORCHESTRA** **H74020**  
 Grades: 9-12 5.0 Credits

This course is the preparatory orchestra of the high school orchestral program; it will serve to develop the musical skills that are a prerequisite for membership in Sinfonia. Emphasis will be placed on improving individual technique, tone production, ensemble skills, and sight-reading. All Repertoire Orchestra members will participate in the regularly scheduled high school orchestral concerts.

**SINFONIA** **H74021**  
 Grades: 9-12 5.0 Credits  
*Prerequisite:* Placement audition is required; please contact the director via email during the registration process.

Designed for freshmen through seniors, this course will serve to develop the musical skills that are a prerequisite for membership in the PHS Orchestra. Emphasis will continue to be placed on developing individual technique, tone production, ensemble skills, ear training and sight-reading. All Sinfonia members will participate in the regularly scheduled

high school orchestral concerts.

**PHS ORCHESTRA** **H74022**  
 Grades: 10-12 5.0 Credits  
*Prerequisite:* Placement audition is required; please contact the director via email during the registration process.

Designed for advanced musicians, this course provides the opportunity to study and perform the varied orchestral literature of the 18<sup>th</sup>, 19<sup>th</sup>, and 20<sup>th</sup> centuries. In addition, emphasis will continue to be placed on developing individual technique, tone production, ensemble skills, ear training, and sight-reading. Repertoire will vary annually.

**AP MUSIC THEORY** **H74023**  
 Grades: 10-12 5.0 Credits  
*Prerequisites:* Ability to read and write musical notation, basic performance skills in voice or on an instrument, and approval of instructor and/or the department supervisor.

This course is designed to enhance a student's ability to recognize, understand, and describe the basic materials and processes of music that are heard or presented in a score. The student will develop aural skills, sight-singing skills, written skills, compositional skills, and analytical skills. The content will include mastery of the rudiments and terminology of music, which include: notation, intervals, scales and keys, chords, metric organization, rhythmic patterns, harmonization of a melody, realization of a figured bass, analysis of repertoire, functional triadic harmony in four-voice texture, tonal relationships, modulation, phrase structure, and small forms (e.g., rounded binary, simple ternary, strophic). Students will gain, in addition to technical knowledge and skills, exposure to and familiarity with a wide variety of musical literature and the ability to apply their knowledge and skills.

**PROGRAM OPPORTUNITIES IN VOCAL MUSIC**

**CHORALE I - SOPRANO / ALTO** **H74030**  
 Grade: 9 5.0 Credits

This choir is open to freshmen singing in the treble range. This course covers basic theory, harmony, sight-reading, phonetics, vocal techniques, ear training, and music appreciation. All styles of music are sung including music written for the treble voice in unison or for two or three parts, as well as major

works written for mixed voice ensembles (SATB). Repertoire varies from year to year.

**CHORALE II - TENOR / BASS** **H74031**  
 Grades: 9-12 5.0 Credits

This choir is open to all students singing in the Tenor and Bass range. The course covers basic theory, harmony, sight-reading, phonetics, vocal

techniques, tone production for the unchanged and changed voice, ear training, and music appreciation. All styles of music are sung, from glees to chants, in two, three, and four parts, as well as major works written for mixed voice ensembles (SATB). Repertoire varies from year to year.

**CANTUS** **H74032**  
Grades: 10-12 5.0 Credits

This choir is open to 10th through 12th graders singing in the treble range. The course offers a review of basic theory, harmony, sight-reading, and phonetics, while developing more advanced vocal technique and repertoire. Repertoire varies from year to year so that students may choose this course for more than one year and receive credit for each year

that it is selected.

**PHS CHOIR** **H74033**  
Grades: 10-12 5.0 Credits  
*Prerequisite:* Audition

This course includes the study of advanced musical compositions and seeks to develop a high level of vocal proficiency through special concerts given throughout the year. The Princeton High School Choir's repertoire spans the ages, with a range of choral music from Gregorian Chant to contemporary literature. The Choir performs a cappella and with all forms of accompaniment: piano, organ, instrumental, ensembles, and full orchestra. Repertoire varies from year to year.

PROGRAM OPPORTUNITIES IN THEATER ARTS

**DRAMA I** **H74040**  
Grades: 9-12 5.0 Credits

Activities in this introductory drama course promote spontaneity, creativity, self-confidence, body and vocal flexibility, concentration, cooperation and discipline. Students work collaboratively and creatively through the exploration of storytelling, ensemble building, stage movement, improvisation, script analysis, monologue study, scene study, playwriting, group devising, oral and written critiques, and the production process. Students will perform scenes from a variety of repertoire, ranging from Ancient Greek theatre to modern day contemporary theatre. Students learn the basics of the art of theater performance including stage directions, voice projection, relaxation, line memorization techniques, and handling stage fright. Students examine scripts and build characters by combining their own life experiences with the demands of the texts they are studying. **All students taking this course will participate in a public performance by this class.**

**DRAMA II: Exploring Theater History** **H74041**  
Grades: 9-12 5.0 Credits  
*Prerequisite:* Audition/Teacher recommendation or successful completion of Drama I.

In Drama II, students will focus on the craft of Acting through the lens of exploring theatre history. Through research, discussion, and practical application, students will understand theatre as the reflection and evolution of the social, religious, political, and economic influences throughout history. Students will actively journey through theatre history by

performing improvisations, monologues, scenes, and plays from various time periods. Students will master acting styles, manners, and stage movement appropriate to each period and culture studied in class. The course will cover important topics and seminal plays ranging from Ancient Greek Theatre to the present. Students will also work on developing improvisation, acting, design, and playwriting skills. **All students taking this course will participate in a public performance by this class.**

**DRAMA SEMINAR: Advanced Acting and Performance Technique** **H74042**  
Grades: 11-12 5.0 Credits  
*Prerequisites:* Audition/Teacher recommendation or successful completion of Drama II.

In Drama Seminar, students will experience many different aspects of Acting, Directing, Design Dramaturgy, Improv, Playwriting and Performance. This advanced course first focuses on the study of acting as a craft through the practical exploration of theories and methods of creating character and atmosphere. By utilizing numerous approaches including those of Konstantin Stanislavski, Uta Hagen, Sanford Meisner, Robert Cohen, the Laban Movement, and Anne Bogart's *Viewpoints*, students acquire a working knowledge of a variety of Acting methods and exercises for preparing, rehearsing, and performing a role. Secondly, students are introduced to the principles and techniques of playwriting including plot structure, dramatic action, point of view, mood, character development, setting, written dialogue, and stage directions. Finally, the study prepares students to confidently assume the

director's duties in preparation for the Student-Directed Play Festival. **All students taking this course will participate in a public performance by this class.**

**MUSICAL THEATRE: Acting, Song, and Dance**  
**H74043**

Grade: 10-12 5.0 Credits  
*Prerequisites:* Audition/Teacher recommendation.

The musical theatre performer must be a master of many styles of acting, singing, and dancing. This advanced course combines these separate disciplines into a complete program of study and training in all elements of the craft, including fundamentals of acting applied to musical theatre; script, score, and character analysis; personalizing a performance; acting styles in musical theatre; and practical steps to pursuing a career. Through solo, partner, and group work, students will handle a wide range of performance conventions and training requirements unique to musical theatre while developing a clearly articulated methodology for integrating all the elements of musical theatre into performance. Exercises and assignments include choosing audition material, building your book, how to use subtext and monologues to make the performance of a song more believable, phrasing

from lyrics rather than the music, using facial expressions and gestures to communicate emotions, staging a song, and how to overcome stage fright. Students will also learn dance steps and choreographic styles universally used in musical theatre choreography. **All students taking this course will participate in a public performance by this class.**

**DANCE** **H74016**  
Grades: 9-12 5.0 Credits

In this class, you will be introduced to a variety of dance styles, including salsa, waltz, hip-hop, country line dancing, Broadway, jazz, ballet, cha-cha, modern, square dance, tap, swing, and character dance. The class is entirely a kinesthetic course, with no paper, pencils or books required. Weekly assessments consist of performing dance combinations in class, with ample opportunities to practice and perfect beforehand. The class includes teacher-choreographed combinations set to teacher-selected music as well as teacher-choreographed combinations set to music and dance styles chosen by the members of the class. There will also be opportunities for students to choreograph. Students may repeat this course from year to year for additional performing arts credit.

## SPECIAL EDUCATION

Special Education student programs are selected in collaboration with the student, parents, the high school child study teams, and with input from teachers. The district program offerings include:

### **IN-CLASS RESOURCE PROGRAM (ICRP)**

The ICRP is designed to provide support services to classified students in the general education setting in the content areas of English, math, science, and social studies. Two teachers, a special education teacher and a content teacher, work collaboratively to instruct and assist students in the classroom. All students are expected to meet general education curricular requirements, with the support of individualized instructional strategies and modifications.

### **PULL-OUT REPLACEMENT RESOURCE PROGRAM**

The Resource Program is offered to students who experience difficulty with the rigor, pace and/or structure of mainstream academic subjects. Resource classes are offered in the following content areas: English, mathematics, social studies,

and science. Small group instruction is provided by highly qualified teachers who modify the general curriculum to meet the individual needs of students. Efforts are made to transition students into general education classes by teaching compensatory skills and strategies.

### **SUPPORT PROGRAM**

Students in support classes benefit from individual and small group instruction intended to provide compensatory skill development, remediation, pre-teaching of vocabulary and concepts, study skills, organizational strategies, and reinforcement. Support class is typically not appropriate for students receiving in-class support.

### **LEARNING AND LANGUAGE DISABILITY (LLD) PROGRAM**

This Program is designed to provide students who require greater academic and social support in the core academic subjects using a modified curriculum guide. As needed, students are provided with instruction in adult daily living, and vocational opportunities to acquire job related skills through the

district's School-to-Work program. Students in LLD Social Studies will cycle through US History 1 and 2, and the World History and Cultures Curriculum. Students in LLD Science will cycle through biology, environmental science, and chemistry.

### **AUTISM PROGRAM**

The Autism Program prepares students to maximize achievement and skills according to their individual potential in the areas of language pragmatics and communication, social interaction, academic coursework, functional life skills, and vocational skills. Academic course work is individualized in the program. Utilizing a behavioral approach, the program seeks to increase a student's independent functioning at school, home, and community. Vocational programming is included, based upon individual student needs, through School-to-Work.

### **SCHOOL-TO-WORK**

The primary purpose of this class is to address the individual needs of the students to develop functional job-related skills for adult life. This program will include instruction in communication for working as part of a group to participate on a job site, following written or oral directions, and asking for or offering assistance. Time on task, initiating, and following through to complete tasks will be emphasized. Student interests and talents will be examined to identify possible career paths. Specific job skills will be explored, as appropriate, for possible community based, supported, or sheltered placements. Opportunities within the school building will be explored, including tasks in the student services office, nurse's office, and in the school building in general. In addition, the student will develop a sense of responsibility, pride, and accomplishment by participating in the community of the school.

### **ADULT DAILY LIVING**

The primary purpose of this class is to address the individual needs of the students to develop functional home living and leisure skills for adult life. This program includes instruction in communication for working as part of a group to participate within a home setting, including following written or oral directions, asking for assistance, and offering assistance. Time on task, initiating, and following through to complete tasks will be emphasized. Specific home-based tasks such as: shopping, table setting, meal preparation, laundry, bed making, and cleaning chores will be modeled and practiced within the life skills lab setting and the community.

Leisure skills will be explored to develop positive use of free time, including exploring individual or community-based opportunities for sports, music, art, movies, and/or crafts. In addition, the student will develop a sense of responsibility and accomplishment by independently completing home skills, as well as becoming an active member within the community.

### **BRIDGES PROGRAM**

The Bridges Program supports students' emotional, social, and academic needs, while offering them the opportunity to be part of the comprehensive high school. This program integrates inclusion in the general academic program with both a therapeutic component and related support classes.

### **EXPLORING HORTICULTURE**

Grades: 9-12

5.0 Credits

This basic life science course satisfies the requirement for high school life science. It is for students who have an interest in horticulture, its effect on the environment, personal health, and community sustainability. The class integrates the practical application of horticulture as a means towards understanding how individual choices can influence or compromise a sustainable, healthy community. This is a science course with a focus on developing students' organizational and executive functioning skills through hands-on activities and project-based learning. Some topics to be studied are the changing face of Horticulture in the metropolitan area, plant structure and function, holiday and flower arrangements, container grown crops, soil as a thriving community, ecological landscape and lawn management through the seasons. The goal is to apply problem-based learning towards creating climate-resilient and livable communities through horticulture with the PHS Campus as the living model laboratory. Students are expected to collaborate and participate in hands-on, school-based projects that reinforce these featured themes. Students will be actively engaged within the school and are encouraged to collaborate with community-based environmental groups. Students should not be afraid to get their hands dirty nor to get their feet wet and have a strong work ethic.

## ENGLISH AS A SECOND LANGUAGE

ESL, or English as a Second Language, is a multi-tiered program for teaching English to non-native speakers. Its primary goal is communication in English. In this program, students are helped to use English actively in speaking and writing and to comprehend English that is spoken or written. Students work to develop academic proficiency in the four skills of listening, speaking, reading and writing. The ESL program is individualized for students dependent on their placement exam evaluation and previous course history and

experience. The goal is for students to eventually move into mainstream classes. Students with limited English can begin in our Welcome Center where they are supported through their transition into PHS, building on concepts, skills and vocabulary in both English and Math. Students may be placed into ESL English, History, Science and / or Math. Student schedules will be crafted based on placement decisions and graduation requirements. These will be monitored throughout the school year to support proficiency and development.



## ENGLISH LANGUAGE ARTS

The study of English each year is a requirement for every high school student in New Jersey. Students completing the Princeton High School English program will read from diverse literature. They will write frequently for different purposes, using a process approach, including revision, and editing for grammatical conventions. Students will also continue to develop their vocabulary, speaking, listening, writing and viewing skills.

### ENGLISH I

Grade: 9

**H14010**

5.0 Credits

**Required of all freshmen.** This course lays the foundation for future course work at Princeton High School. English I introduces students to a variety of modes of expression and genres found in world literature. Major units include autobiographical writings; storytelling through myths, short stories and novels; dramatic, and journalistic and oral presentations of issues; the sounds and images of poetry and non-print media. Students write regularly using a process approach, learning how to vary their writing for different purposes. Vocabulary and grammar are integrated with the literature study and writing.

### ENGLISH PLUS

Grade: 9 - 10

*Prerequisite:* None

Course eligibility: Teacher recommendation, C+ or below in previous English course

English Plus offers selected students additional support for the work of the English I and II class. The English I and II curriculum will be reinforced with particular attention given to reading comprehension, vocabulary development, writing skills, homework, and research projects. The purpose of the Plus class is to enable students to achieve their potential by providing opportunities for supervised completion of their assignments, assistance with skill development, and motivational activities to inspire commitment. Students will also benefit from guided group activities, enrichment field trips, and advisory activities. While this class is offered on a semester basis, it may be repeated during any semester a student is enrolled in English I or II.

### ENGLISH II

Grade: 10

*Prerequisite:* English I

**H14020**

5.0 Credits

**This course is required of all sophomores.** This course develops skills in interpretation, composition,

oral presentation and discussion, vocabulary, and critical thinking. Readings include works by a wide variety of authors including Shakespeare, Remarque, Wiesel, and Fugard. Some of the readings and projects enhance the understanding of historical events such as the Holocaust. A process approach to writing incorporates the use of student and teacher responses, revision, and portfolio assessment.

**ENGLISH III** **H14030**  
Grade: 11 5.0 Credits  
*Prerequisite:* English II

Students of American Literature will read, discuss, analyze, and write about a range of American literary works (early to recent, fiction and nonfiction) in several genres (novels, plays, essays, autobiographies, poems, and short stories). Students will write in a variety of modes, including critical essays and personal narratives. Grammar and usage are taught as needed. Vocabulary study parallels class readings.

**AP LANGUAGE AND COMPOSITION** **H14031**  
Grade: 11 5.0 Credits  
*Prerequisite:* B+ or better in English II or Supervisor's approval

Students in this course will be expected to handle increasingly sophisticated materials and develop skills in the analysis and evaluation of literature. Students need patience with texts, time to do the many varied assignments, and dedication to individual growth as users of the art of language. Among the authors represented are Hawthorne, Miller, Emerson, Poe, Wharton, Fitzgerald, Hemingway, Thoreau, and Whitman. Writing will be extensive and frequent.

**ENGLISH IV** **H14040**  
Grade: 12 5.0 Credits  
*Prerequisite:* English III or AP English III

English IV prepares students for college level courses through close reading, discussion, and writing related to works of literature such as *Things Fall Apart*, *Oedipus the King*, a Shakespearean play, the Arthurian legend, Romantic poetry, and various novels. The essential frame for the course is the cycle of the hero's adventure. Beginning with a study of creation myths, students will examine the human quest to know oneself and the world. By the end of the year, students will connect modern writings with this primal quest, thus readying themselves for their own journeys beyond high school. Emphasis is given

to writing coherent, specific, and grammatical essays. Opportunity for creative and personal writing, including the college application essay, is also provided.

**AP LITERATURE AND COMPOSITION** **H14041**  
Grade: 12 5.0 Credits  
*Prerequisites:* B+ or better in English III or Supervisor's approval

Major emphasis is on British literature, although some choices in Continental literature are included. Supplementary reading, to be done in addition to the regular class assignments, allows for a broader range of choices. Students who take this course study the literature in depth and write analytical and expository essays. Close analysis of poetry is a major part of this course.

**GREAT BOOKS** **H12002**  
Grades: 10-12 2.5 Credits

Great Books is a semester elective course in which students read a selected number of texts in both Eastern and Western literature and philosophy. The texts represent the best of humanity's thinking and writing throughout the ages and are those texts which have had a profound influence on humankind. Although the texts represent a challenge, the rigor of the course will derive from the seminar discussion format. Questioning will be encouraged as the texts present ideas that have intrigued man throughout the centuries. Students will be expected to prepare for the class daily, write papers on the readings, and contribute to the discussion. Possible authors/texts include Plato, Aristotle, Dante, Lucretius, Machiavelli, Montaigne, the TAO TE CHING, and the BHAGAVAD GITA.

**MEDIA STUDIES** **H12003**  
Grades: 9-12 2.5 Credits

Media Studies is a theoretical and practical course which teaches students how to analyze and decode the complicated messages of mass media, including television, radio, magazines, advertisements, newspapers, and films. The goal of this course is not to teach students what to think, but rather how to think about the media. Emphasis is placed upon critical viewing and thinking skills, as well as the creation of student media products. Students will learn how to refute stereotypes and uncover embedded or biased messages related to race, gender, ethnicity, age, disability, and socio-economic levels. Students will review research studies on issues such as violence in the media and

the blurring of news and entertainment. It is expected that students will participate in class discussions, projects, and hands-on activities. There is a strong emphasis on analytical writing in this course. **Successful completion of this class fulfills 2.5 credits of the 21st Century Life and Careers requirement.**

**PHILOSOPHY** **H12004**  
Grades: 10-12 2.5 Credits

Immersing students in critical thought, this course will serve as an introduction to philosophy. The course begins with the foundation of philosophy, logic. Students will learn the elements of a logical argument, how to symbolize arguments to evaluate them objectively, and how to construct and use logical proofs. From there, students will engage with an overview of the critical pillars of both Eastern and Western philosophy, both through primary texts of philosophy and through critical reading of literature through a philosophic lens. By the end of the course, students will take a practical approach to philosophy, applying various schools of moral philosophy to real-world problems.

**JOURNALISM I: An Introduction** **H12005**  
Grades: 9-12 2.5 Credits

Students in this course will learn to write and analyze the traditional core forms of journalism: news stories, feature stories, sports stories, the opinion column, and the editorial. While writing these forms, students will also study how codes of ethics and press law guide journalistic practice. Students will practice journalistic skills such as copyediting, interviewing, and meeting deadlines. The course relies on the daily newspaper and online publications, in addition to a class text, to inspire this introduction to the fundamentals of journalism.

**Successful completion of this class fulfills 2.5 credits of the 21st Century Life and Careers requirement.**

**JOURNALISM II** **H12006**  
Grades: 9-12 2.5 Credits  
*Prerequisite:* Journalism I

This course will provide students with the opportunity to practice journalism skills by researching articles through the internet; writing for publications for the various school venues through community outlets; having student writing critiqued by professional journalists; participating in video conferences; and interacting with professional journalists through e-mail or forums such as those provided by CNN. It is

expected that students will use class time to complete course projects as well as to complete assignments for school publications. The format will be that of a workshop, and assignments will be individualized.

**Successful completion of this class fulfills 2.5 credits of the 21st Century Life and Careers requirement.**

**CREATIVE WRITING** **H12027**  
Grades: 9-12 2.5 Credits

A laboratory approach to writing gives students the time and freedom to explore many forms of writing and to experience all stages of composing. The class serves as an immediate audience and as a support group in a relaxed, productive setting. Emphasis is on the writer's own personal process of writing rather than on rigid forms. Requirements are a genuine interest in writing, a willingness to share writing with other students, and the keeping of a writer's journal. Because the writers decide on the forms studied within a semester, every semester is unique. Students may enroll for one or two semesters.

**CONTEMPORARY LITERATURE** **H12009**  
Grades: 10-12 2.5 Credits

In this class, students will read novels, drama, and poetry from the later part of the twentieth century to understand forces and influences which shape modern life. There will be an emphasis on American and international authors to enable students to examine the human condition. Contemporary concerns about the individual, family, race, and gender will provide a focal point. National issues surrounding diversity and culture will also be addressed.

**MULTIMEDIA SPECIAL EFFECTS** **H12011**  
Grades: 9-12 2.5 Credits

In this class, students will explore unlimited creative possibilities for producing special effects. They will use software that efficiently produces motion graphics for film, video, multimedia, and the Web. The software will enable students to integrate with other editing tools to produce professional results. **Successful completion of this class fulfills 2.5 credits of 21st Century Life and Careers requirement.**

**FILM APPRECIATION** **H12010**  
Grades: 10-12 2.5 Credits

Students will be exposed to approximately ten films

representing the history of film, domestic and foreign film, and a variety of genres. Films will be viewed in their entirety, and students will write papers in response to the films. Genres studied may include silent comedy, the musical comedy, film noir, the adventure film, epic films, and mystery/suspense films. The course will focus both on directors and their achievements, and on great performances by individual actors and actresses. Students will learn the language of film analysis and read examples of film criticism.

**VIDEO PRODUCTION I** **H12012**  
Grades: 9-12 2.5 Credits

This course introduces the student to the basics of video production including camera operation, lighting, sound recording, crew positions, and editing. Students will work in teams and produce a variety of short projects aimed at developing style and proficiency. Shooting and editing will be done on digital systems both in the studio and “on location.” Completed projects will be eligible for review and acceptance to “Video PHS” for broadcast. Content issues will be explored, and technical skills will be developed. **Successful completion of this class fulfills 2.5 credits 21st Century Life and Careers requirement.**

**VIDEO PRODUCTION II** **H12013**  
Grades: 9-12 2.5 Credits  
*Prerequisite:* Video Production I

This course allows students to expand and practice the skills learned in Video Production I. Students will be required to bring two projects to completion, beginning with written treatments and scripts through shooting scripts, technical production, and post-production. Documentary, news magazine, interview, avant-garde, sports journalism, and other styles may be explored. Students will critique and assist each other in completion of projects. Advanced techniques in directing, lighting, camera operation, and sound recording will be learned and applied. Shooting and editing will be done on digital systems both in the studio and “on location.” Completed projects will be eligible for review and acceptance to “Video PHS” for broadcast. Those wishing to prepare an admission portfolio for college or technical schools will be assisted and advised throughout this course. **Successful completion of this class fulfills 2.5 credits 21st Century Life and Careers requirement.**

**FILMMAKING** **H12015**  
Grades: 9-12 2.5 Credits

Special attention will be paid in this course to learning the elements of shooting in the film style as well as translating literature into a visual medium. Students can produce either documentary or dramatic films, and both short subject and “Feature Length” will be possible. Film crew positions will be assigned as students assist each other with projects. Strict adherence will be paid to writing treatments, scripts and shooting scripts, directing talent for film, setting realistic shooting schedules, and the elements of budgeting a film. Completed projects will be eligible for review and acceptance to “Video PHS” for broadcast. Those wishing to prepare an admissions portfolio for college or technical schools will be assisted and advised throughout this course. **Successful completion of this class fulfills 2.5 credits 21st Century Life and Careers requirement.**

**PUBLIC SPEAKING** **H12016**  
Grade: 9-12 2.5 credits

Students in Public Speaking will learn the basics of speaking formally and informally in front of a group. Initial experiences will provide students with brief opportunities to present themselves in front of a group. Throughout the course, emphasis on voice, tone, eye contact, delivery, projection, and use of note cards will prepare students for frequent and longer speaking experiences. The semester will culminate in formal speaking projects which will include debate, speaking on a panel, and formal speeches using research. **Successful completion of this class fulfills 2.5 credits of the 21st Century Life and Careers requirement.**

**GAME DESIGN** **H12028**  
Grade: 10-12 2.5 credits

In Game Design, students will play, analyze, and create games. The course examines how we define games, what role games play in our lives, what makes them fun, and, ultimately, how to create games that others will enjoy. During the creation process, students will work through the process of game design: brainstorming their ideas, prototyping their game, playtesting with others, refining their design, and finalizing their game. The course will be focused on the practical elements of design but will also consider some aspects of the theory surrounding games and game design. Students will be expected to play diverse kinds of games, reflect

over their experiences, give peers meaningful feedback, and create their own designs.

**LITERATURE AND SOCIAL JUSTICE H42061**  
Grades: 10-12 2.5 Credits

This course will examine a process through which humans can achieve a state of harmony. The core focus of the course will be to read literature from a variety of voices that examines both human suffering and human triumph over suffering. The protagonist of Yan Martel's *The Life of Pi* discovers a way to

synthesize the worlds' religions to create peace within himself. In the *Bhagavad Gita*, Arjuna comes to understand that the war that is most worth fighting is not one against others, rather, it is an internal war against one's own ego. Langston Hughes, a champion of the black community, demonstrates in his poem "Advertisement for the Waldorf-Astoria" the mechanisms by which people are oppressed and he offers a means of overcoming that paradigm. Using the literature as their guide, students will grapple with questions surrounding social justice and how to create harmony in a discordant world.

## MATHEMATICS

The math courses at Princeton High School are designed to meet the needs of all students at all levels of development. All students must successfully complete three years (15 credits) in mathematics to be eligible for graduation. One of these courses must be a geometry course. The Math Department encourages all students to take a minimum of one mathematics course each year. The Math Department also encourages students to take every opportunity they can to develop their talent in mathematics. The department strongly recommends that students, in scheduling their mathematics courses, adhere to the course and level recommendations made by the stated prerequisites. The Mathematics Department would also like to see students, in addition to their math courses, investigate the opportunities available in computer programming including Visual Basic, Introduction to Computer Science using Java, Object Oriented Programming Using Java, AP Computer Science in Java, or Algorithms and Data Structures.

Many courses will be using the TI-84 graphing calculator on a regular basis. Students would benefit from acquiring their own calculator so they can store information and use it as they progress through their coursework. Calculators will be provided for classroom activities.

The Mathematics Department opens opportunities for students to advance a level. Students should review the criteria for advancement of a course level. There is an approval process that must be discussed with the student's counselor and approved by the department supervisor. A student will need to take a pre-approved 120-hour advancing credit course in the level being bypassed. A student will need to submit the Advancement of a Course Level Form to the supervisor before May 1, 2022. To be granted permission to move ahead to the next level a student must take the department approved exam for the bypassed course.

### PROGRAM OPPORTUNITIES IN MATHEMATICS

Co-enrollment of mathematics courses:

Due to the sequential nature of mathematics, the following are the only courses that may be taken concurrently: Math PLUS classes, AP Statistics, Intro to Statistics and Discrete Mathematics. Computer Science courses (Python Programming, Intro to Computer Science Using Java, Object Oriented Programming Using Java, AP Computer Science in Java) can be taken concurrently with mathematics courses but must be taken sequentially with other Computer Science courses. Geometry and Algebra II may also be taken concurrently **in grades 10 through 12 with the department supervisor approval and an A in PHS Algebra I. If taking both courses, only one course may be accelerated.**

**ALGEBRA I**

Grades: 9-12

**H24010**

5.0 Credits

*Prerequisites:* Successful completion of a pre-algebra course or an 8th grade math course.

This is a standard course in Algebra I. It makes the transition from the specifics of arithmetic to the generalizations of higher math. Topics include problem-solving, patterns and functions, data analysis, equations, and inequalities, as well as other key concepts outlined in the NJ Student Learning Standards.

**ALGEBRA I PLUS** **H24011**  
Grades: 9-10 5.0 Credits  
*Prerequisites:* Students taking Algebra I who have been identified as needing additional support through multiple measures of data.

The purpose of the PLUS class is to enable students to achieve their potential by providing academic support in identified areas of need. These areas will be assessed, and progress will be monitored to show the growth that supports their success in Algebra I.

**GEOMETRY I** **H24021**  
Grades: 9-12 5.0 Credits  
*Prerequisites:* Successful completion of Algebra I. Student with a C- or below in Algebra I are recommended to be enrolled in Geometry Plus.

The study of geometry includes triangles and their congruence, circles, spheres, quadrilaterals, similarity of polygons, characterizations of sets and construction, transformational geometry, and plane coordinate geometry.

**GEOMETRY I ACCELERATED** **H24022**  
Grades: 9-12 5.0 Credits  
*Prerequisites:* An A in middle school Algebra I or high school Algebra I, or B or above in Grade 8 Accelerated Algebra II (PMS Only).

Geometry I Accelerated is a rigorous course which covers most of the topics of plane geometry, with additional emphasis on the more complex theorems of solid geometry. The nature of geometric proofs is emphasized. A student who chooses this course should be aware of the following: the range of topics is greater and, in more depth, than a non-accelerated course, and the pace is faster.

**\*See Science for Co-Enrollment Requirement.**

**GEOMETRY I PLUS** **H24020**  
Grades: 9-12 5.0 Credits  
*Prerequisites:* Students taking Geometry I who have been identified as needing additional support through a criteria matrix.

The purpose of the PLUS class is to enable students to achieve their potential by providing academic support in identified areas of need. These areas will be assessed, and progress will be monitored to show the growth that supports their success in Geometry I.

**ALGEBRA II ELEMENTS** **H24030**  
Grades: 9-12 5.0 Credits  
*Prerequisites:* A passing grade in Geometry I.

Algebra II Elements will review many of the topics learned in Algebra I. Students will also study linear and quadratic functions, direct variations, radicals, and other related subjects. Concepts may be developed using the graphing calculator.

**ALGEBRA II** **H24031**  
Grades: 9-12 5.0 Credits  
*Prerequisites:* A passing grade in Geometry or Geometry Accelerated.

In Algebra II, students will cover traditional material on inequalities, graphing, functions, rational exponents, factoring, systems of equations, rational expressions, solutions of equations, quadratic relations, exponential function, and logarithms.

**\*See Science for Co-Enrollment Requirement.**

**ALGEBRA II ACCELERATED** **H24033**  
Grades: 9-12 5.0 Credits  
*Prerequisites:* A in both Algebra I and Geometry, or B or above in Geometry Accelerated.

**\*See Science for Co-Enrollment Requirement.**

Algebra II Accelerated is a rigorous course, which covers all the topics of standard Algebra II. Additional emphasis is placed on the concepts of functions, analysis, conics, logarithmic and exponential functions, and matrices. A student who chooses this course should be aware of the following: the range of topics is greater and, in more depth, than a non-accelerated course, and the pace is faster. Additional topics covered: conic sections, counting methods, probability, data analysis, statistics, sequences, and series.

**ALGEBRA II PLUS** **H24032**  
Grades: 9-12 5.0 Credits  
*Prerequisites:* Students taking Algebra II who have been identified as needing additional support through a criteria matrix.

The purpose of the PLUS class is to enable students to achieve their potential by providing academic support in identified areas of need. These areas will be assessed, and progress will be monitored to show the growth that supports their success in Algebra II.

## **APPLICATIONS AND MODELING OF MATH**

**H24044**  
Grade: 11-12 5.0 Credits  
*Prerequisites:* A passing grade in Algebra II or Algebra II Elements.

This course is designed to offer students the opportunity to build on their knowledge from Algebra II and apply it to model real world applications. An emphasis will be placed on trigonometry to prepare students for the SATs.

**PRE-CALCULUS** **H24051**  
Grades: 9-12 5.0 Credits  
*Prerequisites:* A passing grade in Geometry, Geometry Accelerated, Algebra II, or Algebra II Accelerated.

Pre-Calculus emphasizes the study of elementary functions and the sketching of their graphs. Functions are covered intensively. Trigonometry and applications are fully developed in this course. Other topics include logarithmic, exponential, and inverse functions.

**\*See Science for Co-Enrollment Requirement.**

**PRE-CALCULUS ACCELERATED** **H24052**  
Grades: 9-12 5.0 Credits  
*Prerequisites:* B or above in Algebra II Accelerated, or A in Algebra II and B or above in Geometry Accelerated, or A in Geometry

Pre-Calculus Accelerated is a rigorous course, which includes the topics developed in pre-calculus. It also includes selected topics in analytic geometry, probability, sequences and series, vectors, polar coordinates, parametric equations, limits, and an introduction to calculus. A student who chooses this course should be aware of the following: the range of topics is greater and, in more depth, than a non-accelerated course, and the pace is faster.

**\*See Science for Co-Enrollment Requirement.**

**PRE-CALCULUS PLUS** **H24053**  
Grades: 9-12 5.0 Credits  
*Prerequisites:* Students taking Pre-Calculus who have been identified as needing additional support through a criteria matrix.

This course would be taken concurrently with Pre-Calculus to support success. Students will have the opportunity to reinforce key concepts covered in prior courses so to build a solid foundation. In addition, students will be able to spend additional time reinforcing current skills/concepts in preparation for demonstration of knowledge.

**CALCULUS** **H24060**  
Grade: 9-12 5.0 Credits  
*Prerequisites:* Successful completion of Pre-Calculus

Calculus is designed to introduce concepts of differential and integral calculus, with the emphasis on a gradual, thorough approach. Use of a graphing calculator is integrated throughout the course.

**\*See Science for Co-Enrollment Requirement.**

**AP CALCULUS AB** **H24061**  
Grades: 9-12 5.0 Credits  
*Prerequisite:* A in Precalculus, or C+ or above in Pre-Calculus Accelerated.

This course covers the rate of change of a function, differentiation of algebraic and transcendental functions, plane analytical geometry, and integrals. Use of a graphing calculator is integrated throughout the course. This course is designed to prepare students to take the CEEB AP Calculus AB examination. Success on this exam could mean advanced placement for up to two semesters of college calculus.

**\*See Science for Co-Enrollment Requirement.**

**AP CALCULUS BC** **H24062**  
Grades: 9-12 5.0 Credits  
*Prerequisite:* B + in Pre-Calculus Accelerated or AP Calculus AB.

In addition to the topics of Calculus AB, students in this course will study differential equations, sequences, series, polar coordinates, and parametric equations. Use of a graphing calculator is integrated throughout the course. This is a rigorous course designed to prepare the student to take the CEEB AP Calculus BC examination. Success on this exam could mean advanced placement for up to three semesters of college calculus.

**\*See Science for Co-Enrollment Requirement.**

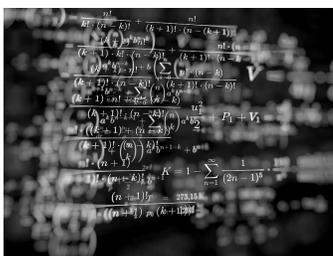
**MULTIVARIABLE CALCULUS AND LINEAR ALGEBRA** **H24063**  
Grades: 9-12 5.0 Credits  
*Prerequisite:* B or above in AP Calculus BC

The course covers the typical topics in a course in three-dimensional, multivariable calculus, including but not limited to vector valued functions, multivariate functions and their derivatives, multiple integrals, techniques, and theorems for the integration of vector fields. Topics from Linear Algebra will include linear transformations, Subspaces of  $\mathbb{R}^n$ , linear spaces, orthogonality, determinants, Eigenvalues and Eigenvectors, and linear differential operators.

**\*See Science for Co-Enrollment Requirement.**

**INTRODUCTION TO STATISTICS, DATA ANALYSIS AND PROBABILITY** **H22070**  
 Grade: 11-12 2.5 credits  
*Prerequisite:* C or above in Algebra II.

This course would serve as a non-rigorous first course in statistics, data analysis and probability with a strong emphasis on applications and the thinking behind data gathering and interpretation, rather than on theory and computation. (This course is not intended to prepare students for the AP exam in Statistics.) Students will learn about statistics and data by working with data. The use of graphing calculators will be incorporated throughout the course. This approach reflects the way real-life statisticians contribute to our understanding of the world. It will also help students be more discerning consumers of statistics, teaching them to look closely at what the numbers from surveys, election polls, and medical studies are really saying.



**AP STATISTICS** **H24072**  
 Grades: 11-12 5.0 Credits  
*Prerequisites:* B or above in Algebra II.

This course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. It is a college-level course and will follow the syllabus recommended by the College Entrance Examination Board. This course is designed to prepare students to take the CEEB AP Statistics examination.

**DISCRETE MATHEMATICS** **H22071**  
 Grade: 11-12 2.5 Credits  
*Prerequisites:* C or above in Algebra II.

Discrete mathematics is the study of mathematical topics which deal with things that can be counted using whole numbers, rather than continuous sets of numbers (like those covered in Algebra, Trigonometry and Calculus). The focus of this course will be on practical applications of discrete mathematics, particularly to issues of social choice and decision-making. Students will explore the connections among mathematical topics and real-life events and situations, while sharpening their problem solving, mathematical reasoning and communication skills.

**COMPUTER SCIENCE**

**All computer science courses may be applied toward the 21<sup>st</sup> Century Life & Careers requirement for graduation.**

**PYTHON PROGRAMMING** **H24073**  
 Grades: 9-12 5.0 Credits  
*Prerequisites:* C or above in Algebra I and enrolled in Geometry or higher.

Python is one of the most successful programming languages. This programming language course is the first course in a sequence of progressively more difficult computer language courses offered at PHS. This course lays the groundwork for students to eventually study Java programming.

**INTRODUCTION TO COMPUTER SCIENCE USING JAVA ACCELERATED** **H22074**  
 Grades: 10-12 2.5 Credits  
*Prerequisites:* B or above in Algebra I and ability to program at least one language.

Students in this course will learn the computer language Java and the concepts of object-oriented programming, modularization of code, and data encapsulation. Students will write programs featuring decision statements, functions, loops, arrays, structures, and classes. Out of class computer time is required. This course is a prerequisite for AP Computer Science Using Java.

**OBJECT ORIENTED PROGRAMMING USING JAVA ACCELERATED** **H22075**  
 Grades: 10-12 2.5 Credits  
*Prerequisite:* C or above in Introduction to Computer Science Using Java.

This is a continuation of Introduction to Computer Science Using Java. Topics include inheritance, polymorphic functions, run time binding, and contained classes. Out of class computer time is required. This course concentrates on the advanced features of Java. This course is a prerequisite for AP Computer Science Using Java.

**AP COMPUTER SCIENCE H24076**  
Grades: 10 -12 5.0 Credits  
*Prerequisites:* B or above in Object Oriented Programming Using Java Accelerated.

The objective of this course is to prepare students for the Advanced Placement Examination in Computer Science. Out of class computer time is required. Topics will include the fundamentals of data structures (stacks and queues, linked lists and trees), classic algorithms in sorting, and searching and analysis of run times.

**ALGORITHMS & DATA STRUCTURES-  
ADVANCED H24074**  
Grades: 10 -12 5.0 Credits  
*Prerequisites:* Completion of AP Computer Science

This course surveys the most important algorithms and data structures in use on computers today. Emphasis is given to algorithms for sorting, searching and string processing. Fundamental algorithms in several other areas are covered as well, including geometric and graph algorithms. The course will concentrate on developing implementations, understanding their performance characteristics, and estimating their potential effectiveness in applications.

**AP COMPUTER SCIENCE PRINCIPLES H24077**  
Grades: 9-12 5.0 Credits  
*Prerequisites:* C or above in Algebra I and enrolled in Geometry or higher.

This class will provide a broad overview of the field of computer science through an introductory college level course. Students will explore the fundamentals

of computational thinking as well as the impact of computers and technology in the world around us. Students learn to design and evaluate solutions and to apply computer science to solve problems through the development of algorithms and programs. They incorporate abstraction into code and use data to discover new knowledge. The coursework and assessments emphasize creativity, problem solving, collaboration, and communication through written, multimedia, and computer programming.

**APP DEVELOPMENT H24078**  
Grades: 9-12 5.0 Credits  
*Prerequisites:* C or above in Algebra I and enrolled in Geometry or higher.

This class will provide students with the opportunity to learn to code iOS apps while learning the basics of Swift, XCode, and object-oriented programming. This course prepares students interested in studying Java programming. No prior experience in programming needed

**APP INVENTOR H24079**  
Grade 9-12 5.0 Credits

MIT App Inventor is an intuitive, visual programming environment that allows everyone – even children – to build fully functional apps for Android phones, iPhones, and Android/iOS tablets. Those new to MIT App Inventor can have a simple first app up and running in less than 30 minutes. And what's more, our blocks-based tool facilitates the creation of complex, high-impact apps in significantly less time than traditional programming environments. The MIT App Inventor project seeks to democratize software development by empowering all people, especially young people, to move from technology consumption to technology creation.

## NON-TRADITIONAL ACADEMIC PROGRAMS

The non-traditional academic programs at PHS are designed to extend the learning opportunities beyond courses offered in the standard curriculum and to encourage non-traditional learning opportunities. The programs described in this section offer students the chance to participate in community-based experiential learning, independent study, support classes, tutorial programs, and interdisciplinary courses as well as to improve their own interpersonal skills through leadership and communication enhancement programs.

**CAREER AWARENESS/COMMUNITY SERVICE H94010**  
Grade: 10 Pass/Fail

Career Awareness/Community Service (CA/CS) is an excellent opportunity for students to explore career and community service interests in their own community. The program is facilitated through the Learning in the Community staff. Sophomore students are able to choose from a broad array of projects led by experienced junior or senior leaders. The program requires a personal journal, a two-page midterm essay, a final presentation, a career survey

discussion session, and on-site work, which is monitored by the program staff. CA/CS experience may also lead to internships, jobs, and leadership opportunities within the Learning in the Community Program.

**This program fulfills the career awareness/community service graduation requirement.**

**PIRL ONLINE-PRINCETON INTRODUCTION TO RACIAL LITERACY** **H92016**

Grades: 9-12 0 Credits  
Cohort Based

This will be a graduation requirement for the class of 2025 and beyond.

This course is a requirement for all students who wish to participate in curricular and co-curricular leadership opportunities (Teen PEP, Peer Group, Mindful Mentors, clubs, sports, performing arts, etc.).

This is an introductory class for PHS Students in grades 9-12. As part of a broader continuum of teaching and learning goals to embrace multicultural education and transformative school culture, this course explores critical self-reflection, critical humility, and critical love as a foundation for a life-long commitment to antiracist practice using anonymized, self-paced participation. An extended learning opportunity at the conclusion of the course will allow participants to join book clubs. There will be 3 cohorts throughout the school year.

**PEER GROUP PROGRAM** **H94012**  
Grade 9 No Credit

All freshmen are required to participate in the Peer Group Program at Princeton High School. The program is designed to support the freshmen in their transition into high school. In Peer Group, freshmen have the opportunity to meet new friends and discuss topics relevant to teens in a fun and relaxing group atmosphere. The meetings are facilitated by Senior Peer Leaders who attend a daily training class and a summer retreat. Topics for discussion include, but are not limited to friendship, trust, romantic relationships, music, substance abuse, stress, gossip, diversity, and harassment. Freshmen are assigned randomly to groups of approximately 14 to 16 members and the meetings begin in the first few weeks of the fall semester.

**PEER GROUP LEADER** **H92013**

Grade: 12 5.0 Credits  
*Prerequisites:* Application and interview process; deadlines apply

This program provides selected students with knowledge and experience in group dynamic and leadership skills. Students will be in training sessions five times per week and will lead discussion groups once a week with freshmen in first and second semesters. Attendance at several parent-student evening activities is also required. The Peer Group program offers a valuable orientation to the freshmen students. Peer Group discussions are led by high school seniors on Wednesday afternoons. The student leaders are selected through application and interview processes during the spring of their junior year. Students participating in this course/program must first take the online PIRL course prior to the start of the 2022-2023 school year.

**TEEN PEP** **H92014**

Grades: 11 5 Credits  
*Prerequisite:* 9<sup>th</sup>, 10<sup>th</sup> Health and application is required; deadlines apply

This is a full year course in sexual health education. Selected students will be trained to be leaders and peer educators and will conduct outreach workshops for peers, parents, and educators. Workshops will address the following topics: postponing sexual involvement, pregnancy prevention, HIV/AIDS prevention, STI (Sexually Transmitted Infection) prevention, parent-teen communication, sexual harassment, date rape, dating violence prevention, homophobia reduction, puberty education, and other sexual health concerns. Workshops will be presented during the designated class periods with outreach to 9<sup>th</sup> & 10<sup>th</sup> grade classes that meet at that time. This elective course is open to members of the junior and senior classes. Students participating in this course/program must first take the online PIRL course prior to the start of the 2022-2023 school year.

**AM TECHNICAL SCHOOL** **H94018**

**PM TECHNICAL SCHOOL** **H94019**

Grades: 11-12 20.0 Credits  
*Prerequisite:* Application and interview process; deadlines apply

**This course meets the 21st Century Life and Careers requirement.**

The Board of Education of the Technical Schools in the County of Mercer was established by the Mercer County Board of Chosen Freeholders on June 18, 1968. The aim of the Technical Board is "to provide vocational education that will guarantee every man, woman, and child in Mercer County the right to obtain all the occupational education he or she needs or desires and is capable of acquiring."

The main purpose of these courses is to prepare students for further education upon graduation and initial employment in their chosen occupational field. Mercer County Technical Schools operate as the "vocational wing" of each of the high schools in the County and endeavor to expand course offerings, not to supplement existing courses. Students will continue to identify with their home school and participate in their co-curricular activities, as well as take their academic courses at the home school.

If students choose to attend, they will spend part of the day at Princeton High School and part of the day at the Technical School. Twenty credits are awarded upon successful completion of the Technical School course. Students are required to take English and Physical Education at the High School.

One- and two-year courses are offered at either the Sypek Center, Assunpink Center, MCCC Tech Prep Program or the School of Performing Arts at MCCC. Students should review a list of options with their school counselor. A visit to the Center can be arranged to get further information of the programs offered.

#### **INDEPENDENT STUDY (BY DEPARTMENT)**

Grades: 11-12 Credits: 2.5  
*Prerequisite:* Completed all course offerings in department; Deadline (S1)- 10/1, (S2) – 3/1

The Independent Study Program is available for those students who are looking for an additional academic opportunity for in-depth study beyond the PHS course offerings. Student's may take one independent study per semester. **An Independent Study may not be employed to replace a course that is offered in the current PHS curriculum.**

The following steps are required for the proper completion of an Independent Study:

1. A Princeton High School faculty member must serve as the IS advisor. Faculty members are under no obligation to serve as an IS advisor; they do so voluntarily.
2. The student and his/her IS advisor must

agree on the work to be completed and graded, the credits to be awarded, and the time to be allotted. An Independent Study Contract (available in the Counseling Office) listing the appropriate details must then be completed. The student is responsible for getting the contract approved and signed by a parent or guardian, the department supervisor, a school counselor, the director of school counseling, and the principal. The contract is kept on file in the Counseling Office until the completion of the IS.

3. Students will be awarded a pass or fail in their independent study. This will not be factored into the GPA.
4. For students to receive the final grade and credit for an independent study, students will be required to complete a performance assessment at the conclusion of the Independent Study before an advisory panel consisting of teachers and administrators.

#### **HIGH SCHOOL PROGRAM AT PRINCETON UNIVERSITY**

Grades: 11-12 H92021  
3.0 Credits  
*Prerequisites:* University application

Rising junior and senior students may apply for courses in mathematics, biology, physics, chemistry, world languages, computer science, and music (when special talent can be demonstrated). Students must have exhausted all the courses the high school has to offer in the subject that they are applying to take a course at Princeton University. **All applications must go through the PHS Counseling Department.** Princeton University establishes requirements that are firm and cannot be waived. Princeton High School awards high school credits for these courses. Grades are calculated into the student's grade point average. Students may pick up applications in the counseling office for fall courses in April and for spring courses in November. **Students are cautioned to seriously consider the impact a university schedule may have on accommodating their desired high school program, especially because they are semester-based and will replace several periods in their PHS schedule.**

**DUAL ENROLLMENT PROGRAM** H92022  
Grades: 11-12 3.0 Credits  
*Prerequisites:* Dependent on the college partnership

Rising junior and senior students may apply for

courses in various content areas dependent on the establishment of a college partnership. **Students are cautioned to seriously consider the impact a**

**college/university schedule may have on their overall schedule as these courses are taken in addition to their PHS schedule.**

## PHYSICAL EDUCATION AND HEALTH

Physical Education or Health courses are required for every student. Freshmen, sophomores, juniors, and seniors will be placed in 3 quarters of physical education and 1 quarter of health per year. Sophomores will take 3 quarters of physical education and one of Driver Education Theory. According to New Jersey state law, students must be enrolled and pass one year of physical education and health for each year they are enrolled in a New Jersey public high school.

Option II is available to students who meet the criteria. For application details, please visit the PHS Athletics website.

### PHYSICAL EDUCATION

Grades: 9-12

4.0 credits

The Physical Education program is designed to offer students opportunities to develop interest and skill in a variety of physical activities. Individual activities aim to develop basic skills, coordination, agility, and knowledge of rules as well as to stimulate an interest in lifelong sports, recreation, and fitness activities. Individual activities include Badminton, Jogging, Dance, Strength & Conditioning, Speed and Agility, Weight Training, Recreational Games, and Track and Field.

Team activities aim to develop fundamental team skills and techniques, alertness, endurance, safety, knowledge of rules, and sportsmanship. Team activities include Flag Football, Tennis, Pickleball, Ultimate Frisbee, Soccer, Basketball, Floor Hockey, Volleyball, Softball, and Futsal.

**Students in Grade 9 will participate in Health, as a component of their PE class.** The program for

freshmen health focuses on the acquisition of basic positive health habits. Topics to be covered include emotional and social health, stress management, substance abuse education, and human sexuality.

**Students in Grade 10 will participate in Driver's Education, as a component of their PE class.**

This course gives students an understanding of automobile indicators, controls, and safety equipment. Students learn to maneuver the automobile and will discuss driver strategies and emergency situations. Instruction also addresses current laws regarding driving under the influence of alcohol and illegal substances. The New Jersey Written Driver Examination will be administered at the conclusion of the course.

**Students in Grades 11 & 12 will participate in Health, as a component of their PE class.**

This program is designed to encourage students to examine contemporary issues in public and personal health and to develop their own values through group discussions. The following are examples of the topics explored on a rotating two-year cycle: human sexuality and family living, infectious diseases, life cycles and issues of aging, substance abuse, teenage suicide, stress management, depression, ecology, and environmental safety.



## BUSINESS AND TECHNOLOGY

All the courses listed in this department satisfy the 21<sup>st</sup> Century Life and Careers graduation requirement. All computer science courses (listed and described in the mathematics department section) may be applied toward the fulfillment of the 21<sup>st</sup> Century Life and Careers graduation requirement.

**Summer Option for rising 10<sup>th</sup>, 11<sup>th</sup> and 12<sup>th</sup> grade students ONLY:** Students have the option of completing their Financial Literacy graduation requirement through an on-line course experience, at the expense of the student/parent. All applications are approved by the Director of School Counseling in June and must be completed within the summer school timeline. Applications are available in January.

PROGRAM OPPORTUNITIES IN BUSINESS

**ACCOUNTING I**

Grades: 9-12

This course introduces accounting principles. It emphasizes the business aspects of accounting and prepares the student to account for the business activities of a company. The use of actual business forms and an introduction to computer accounting simulate business conditions. This class is recommended for college-bound students interested in business administration, finance, and/or accounting.

**H84001**

5.0 Credits

**AP MACROECONOMICS**

Grades: 10-12

*Prerequisites:* Algebra II, B or better average in an accelerated math class or A in an on-level math class, B or better average in English.

This one semester college-level course will cover topics in macroeconomic theory and provides a foundation for a course in AP Microeconomics. The course content is based on suggestions made by the College Board. The course will prepare students to take the AP Macroeconomics Exam given in May. Throughout the course, students will be applying the theory they are learning to current economic conditions. Topics covered will include Gross Domestic Product, inflation, unemployment, monetary and fiscal policy, and trade. Students will learn how to analyze various economic indicators.

**This course meets the Financial Literacy graduation requirement.**

**H82010**

2.5 credits

**AP MICROECONOMICS**

Grades: 10-12

*Prerequisite:* AP Macroeconomics

This one semester college-level course will cover topics in microeconomics and should be taken after AP Macroeconomics. This course will prepare students to take the AP Microeconomics Exam given in May. The course will cover theories of consumer and business behavior. Students will analyze the different costs, price, and output decisions faced by firms. Four different market models will be studied: pure competition, monopolistic competition, oligopoly, and pure monopoly. In the spring, the class will go on a trip to the NY Federal Reserve Band and the NY Mercantile Exchange. **This course meets the Financial Literacy graduation requirement.**

**H82009**

2.5 Credits

**CONTEMPORARY ECONOMIC ISSUES-  
ADVANCED**

Grade: 12

*Prerequisite:* AP Macro and AP Micro with an average grade of B or better.

This seminar course is designed for mature students who have a continued interest in economics, especially in applying economic principles to current issues. The course will examine the current state of the economy in the United States and the rest of the world. Causes and consequences of recent major events such as the 2008 financial crisis and the European sovereign debt crisis will be discussed. Current issues such as energy, environment and poverty will also be examined. The course content may vary (based on current issues) and is designed to focus on topics not discussed in detail in AP Macro or AP Micro. The use of technology for research and finding current articles will be integral to the course.

**H84003**

5.0 credits

**BUSINESS ETHICS**

Grades: 9-12

The issue of ethics is woven into the everyday activities and responsibilities of business. This course will study the nature of moral responsibilities of corporations, the rights and responsibilities of employees, affirmative action, discrimination, sexual harassment, the environment, and marketing. The topics students discuss include moral issues of business, protecting the environment, affirmative action, safety, and sexual harassment. Actual case studies will be highlighted for discussion.

**H82004**

2.5 Credits

**PERSONAL FINANCE**

Grades: 9-12

This course addresses the interests of those students who want to learn how to manage their own finances. Among the topics covered will be saving and investing, spending within a budget, money and banking, and credit issues. The course will include a basic understanding of business and economics. Students will have the opportunity to participate in a personal finance simulation. **It is recommended that this be the first business course students take. This course meets the Financial Literacy graduation requirement.**

**H82006**

2.5 Credits

**ECONOMICS**

Grades: 9-12

This one semester basic course in Economics will

**H82008**

2.5 Credits

introduce students to supply and demand and give an overview of other important macroeconomic issues such as Gross Domestic Product, inflation, unemployment, and taxes. Current economic events will be discussed as they apply to the topics being covered. This course is recommended to students who want to gain a general understanding of the U.S. economy. This is also a good first course for students who want to continue with further business studies. **This course meets the Financial Literacy graduation requirement.**

**ENTREPRENEURSHIP** **H82007**  
 Grades: 9-12 2.5 Credits

This course will introduce students to the skills required in owning and running a business. The focus will be on the small business environment, the home of most entrepreneurs. Students will learn the concepts involved in owning a business including

purchasing, merchandising, pricing, promotion, location, staffing, etc. Business confidence will be developed through hands-on experience including simulations and business plans. The operation of a business within the high school, such as a school store, may be included as an outstanding learning experience. **This course meets the Financial Literacy graduation requirement.**

**FINANCIAL PLANNING** **H82020**  
 Grades: 10-12 2.5 Credits  
*Prerequisites:* Personal Finance or Economics

This course is designed to expose students to the key personal financial planning areas of estate, risk management, investments and financial independence while integrating tax planning strategies. The course will address important fiscal knowledge, habits, and skills to assist students in making informed decisions about personal finance.

PROGRAM OPPORTUNITIES IN TECHNOLOGICAL AND INDUSTRIAL EDUCATION

**ENGINEERING DRAWING** **H84011**  
 Grades: 9-12 5.0 Credits

Engineering Drawing is a Computer Aided Design and Drawing (CADD) course designed to provide beginning students with instruction in computer graphic skills and design fundamentals. Students will learn the use of Fusion 360 for two-dimensional drawing and three-dimensional modeling. Students will explore the wide range of CAD technologies and applications in drawing objects in both orthographic and isometric forms. This course is highly recommended for students aspiring to study engineering, architecture, or other technical fields.

**ARCHITECTURE** **H84012**  
 Grades: 10-12 5.0 Credits  
*Prerequisite:* Engineering Drawing or Computer Graphics

This course introduces students to design and drafting problems involving residential buildings. The course includes the study of the fundamentals of design, and skills related to the production of architectural designs. Students will study the design of interior and exterior elements of structures in both two-dimensional and three-dimensional representations. A set of floor plans will be created to conclude the year. The main program used in class is Graph iSOFT ArchiCAD.

**ADVANCED ARCHITECTURE** **H84013**  
 Grades: 11-12 5.0 Credits  
*Prerequisite:* Architecture

This course begins with a dream house project where the student will create a compilation of plans including sketches/drawings, dimensioned floor plans, and elevations. The students will then design and build a small single story house using foam board. This project sets them up for the end of the year partner project involving the design and construction of a larger foam board house. Graph iSOFT ArchiCAD is the computer aided design software used in this class.

**COMPUTER GRAPHICS** **H84014**  
 Grades: 9-12 5.0 Credits

This course will introduce students to illustration and 3D modeling using the computer. AutoCAD 2017 will be used as well as Adobe Illustrator CS6 to produce and edit graphic images. The first semester of the course, students will be introduced to Adobe Illustrator. The Second semester, students will be using AutoCAD. The course is designed to provide beginning students with instruction in computer graphic skills and design fundamentals. Students will learn the use of AutoCAD and Illustrator for two-dimensional drawing and three-dimensional modeling. Using practical problems students will be required to plan, design, and produce computer illustrations.

## CYBERSECURITY

Grades: 9-12

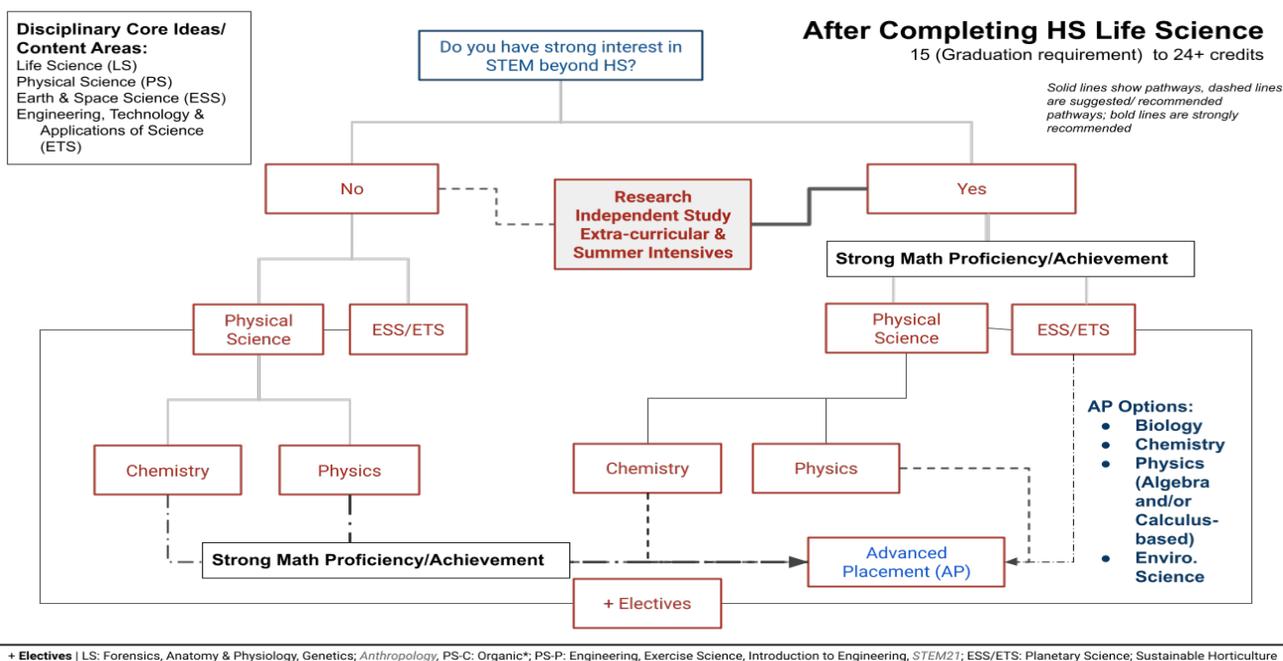
Cybersecurity affects every individual, organization, and nation. This course focuses on the evolving and all-pervasive technological environment with an emphasis on securing personal, organizational, and national information. Students will be introduced to the principles of cybersecurity, explore emerging technologies, examine threats and protective measures, and investigate the diverse high-skill, high-wage, and high-demand career opportunities in

## H84018

5.0 Credits

the field of cybersecurity before engaging in Cybersecurity Essentials. Cybersecurity Essentials covers foundational knowledge in all aspects of security in the cyber world, including information security, systems security, network security, mobile security, physical security, ethics, and laws. Students will build their skills in related technologies, procedures, defense, and mitigation techniques used in protecting businesses. The course is delivered through the Cisco NetAcad.com learning environment.

## SCIENCE



High school science curricula build on middle school ideas and skills so that students can explain phenomena central to life, physical, earth and space sciences using mathematical reasoning and strategies of in-depth analysis. Students develop usable knowledge across technical subjects and science disciplines to build conceptions, mitigate misperceptions and develop trust in scientific processes and quality information. At the high school level, there is a focus on several scientific practices that include developing and using models, planning, and conducting investigations, analyzing, and interpreting data, using mathematical and computational thinking, and constructing explanations. Students are also expected to demonstrate understanding of several engineering practices, execute principles of universal design, evaluate scientific and technical information and practice critical thinking for comprehensive problem solving. The high school science curriculum is founded on the broad concept and expectation that students work independently and collaboratively as they safely conduct in-depth investigations of key disciplinary core ideas in the life sciences, physical sciences, environmental sciences, and technological sciences. Contemporary issues are explored through traditional courses (Biology, Chemistry, Physics) and supplemented with a variety of electives allowing students to fulfill high school graduation requirements, while also pursuing interests in an array of science topics through rigorous and relevant courses.

**Science courses are well subscribed but must be limited in size and number for reasons including safety concerns in the laboratory setting. As a result, in addition to fulfillment of prerequisites, scheduling priority is based on senior status and previous performance in mathematics and science courses.**

**We make a concerted effort to place students appropriately into classes based on their personal motivations, aspirations, intra- and extra-curricular activities, previous courses taken and demonstrated academic proficiencies.**

Three years (15 credits) of lab science courses are required for high school graduation. However, we strongly recommend including science courses in the program every year. The science curriculum is designed to assist students in acquiring scientific literacy and to prepare them for future education by prioritizing inquiry and lab skills. All science courses have a scheduled block period for extended learning. Additional time is built into the schedule for double lab periods for 6.0/6.4 credit courses. Semester courses are worth 2.5 credit hours.

There are three levels of college preparatory science courses offered in the department: general education, accelerated and advanced placement (AP), which has the expectation that students complete the College Board administered exam.

**All science course placements, including advancement to AP level courses, will be determined by previous course taking, current performance, demonstrated proficiencies in relevant content areas (i.e., mathematics, science), expressed interest and teacher recommendation.**

The Science Department provides opportunities for students to advance to AP level science classes once requisite foundational skills have been demonstrated in mathematics, language, technology, and science. There is an approval process that must be discussed with the student's counselor and approved by the department supervisor.

**BIOLOGY I** **H34011**  
Grades: 9-12 6.0 Credits

Biology I is a college preparatory course that cultivates inquiry using the NGSS Life Science Standards of Structure and Function, Inheritance and Variation of Traits, Matter and Energy in Organisms and Ecosystems, Interdependent Relationships in Ecosystems, and Natural Selection and Evolution. Emphasis will be on scientific literacy, with a focus on evaluating presented information, thinking with a scientific mindset, and an awareness of modern scientific research. Special attention is given to labs, with the intent of cultivating science skills through recognizing variables, developing, and planning an experiment, observational techniques, qualitative and quantitative data collection and analysis as defined by NGSS Science and Engineering

Practices.

**BIOLOGY I ACCELERATED** **H34012**  
Grades: 9-12 6.0 Credits

*Prerequisites:* Students will be evaluated using a placement matrix which includes the following criteria:

1. Placement test
2. Consistent academic achievement in grades 7 and 8 Science, English and Math.
3. Markers of Future Success Rubric score

For this course, students are expected to use abstract reasoning, exhibit organizational skills, and produce high quality work on time and with minimal additional support. An ability to think scientifically and to perform independent scientific inquiry are considered minimal entry requirements. Students should be proficient in time management skills and be highly motivated learners. Laboratory experiences are followed by rigorous laboratory reports, often between 10-20 pages in length, as well as posters and presentations on collected data. This culminates in a final lab project (~10% of the grade) which is independently designed, performed, and analyzed by the student. Students who enter this course are expected to remain at this level and commit to the rigor of this course, with approximately 30 minutes of homework each night. As such, the depth and volume of work will require a significant adjustment from the expectations in eighth grade.

**AP BIOLOGY** **H34013**  
Grades: 11-12 6.4 Credits

*Prerequisites:* Students must have earned/met the following expectations:

- B+ in Biology Accelerated/A in Biology I, and
- B in Chemistry Accelerated/B+ in Chemistry I, and
- B+ in Algebra II/concurrent enrollment.

AP Biology is a rigorous course that covers content nearly equivalent to a college-level introductory biology course intended for science majors. The course follows the College Board approved AP Biology syllabus. The major topics presented in the course are ecology, biochemistry, cellular structure, cellular energetics, cellular communication, cellular reproduction and development, heredity, evolution, and molecular genetics. Through laboratory work, including completion of the required AP labs, an emphasis is placed on developing advanced reasoning and inquiry skills by designing experiments, collecting, and analyzing data using mathematics and other methods, and interpreting that data to draw conclusions. It is expected that students complete a summer assignment to be

turned in on the second week of school and a diagnostic assessment of skills in the first two weeks of the enrolled school year. To be successful in this course, it is imperative that students can work independently and be able to devote 30-60 minutes outside of class daily to complete assignments and study.

### **CHEMISTRY I**

**H34022**

Grades: 10-12

6.4 Credits

*Prerequisites:* Students must have earned/met the following expectations:

- Successful completion of lab-based life science and
- Co-enrolled in Algebra II or higher mathematics course

This college preparatory course is designed to give students a working knowledge of basic concepts and principles of matter. Rather than memorizing facts, the course emphasizes understanding, analysis, logical thinking, and problem solving. The laboratory experience is an integral part of learning. Major topics include measurements, properties of matter, atomic structure, nuclear reactions, periodicity, chemical bonding, reactions and stoichiometry, solutions, and gas laws, according to the NJ Model Curriculum.

### **CHEMISTRY I ACCELERATED**

**H34023**

Grades: 10-12

6.4 Credits

*Prerequisites:* Students must have earned/met the following expectations:

- B or higher in Accel Bio/A- or higher in Bio I
- Co-enrollment in Precalculus or higher math course

This college-preparatory course is a broader and deeper introduction to chemistry than Chemistry I. It covers Chemistry I topics in greater depth, with more mathematics and at a faster pace. Additional topics, not included in Chemistry I are colligative properties, net ionic equations, equilibrium, acids and bases, oxidation/reduction, and organic chemistry. This course emphasizes abstract reasoning and mathematics.

### **AP CHEMISTRY**

**H34024**

Grades: 11-12

6.4 Credits

*Prerequisites:* Students must have earned/met the following expectations:

- B in Chem Accel/A in Chem I and
- B in Accel. Algebra II/A in Algebra II
- Co-enrollment in pre-calculus or a higher math course, and
- Must have chemistry lab experience.

This course is designed to meet the needs of the

student who has developed a special interest in chemistry, who is considering a career in science or a related field, and who intends to take the Advanced Placement exam in May of the course enrollment year. This course follows the AP syllabus with a rigorous pace and is equivalent to a first-year college course. The course uses a college text and supplementary publications. The course focuses on the ability to express ideas with clarity and logic, to design and conduct laboratory experiments (two double labs per cycle), to arrive at conclusions with mathematical vigor, and to manipulate equations and solve problems. Topics include Atomic Structure, Analytical and Descriptive Chemistry, Gas Laws, Thermodynamics, Kinetics, Bonding, and Equilibrium including  $K_{eq}$ ,  $K_{sp}$ ,  $K_a$ ,  $K_b$ ,  $K_p$  Oxidation and Reduction.

### **ORGANIC CHEMISTRY - ADVANCED**

**H32050**

Grades: 11-12

5.0 Credits

*Prerequisite:* Students must have earned/met the following expectations:

- A in AP Chemistry
- Score a 4 or 5 on the AP Chem exam, and
- Must have AP Chem lab experience
- Teacher recommendation/interview

This course will provide an overview of structures of functional groups (reactive portions of a molecule) and the reaction mechanisms (pathways of chemical reactions) that these functional groups undergo. The main topics covered are molecular structures and bonding, introduction to stereochemistry, formalisms used to describe reactions and mechanisms, thermodynamics, analytical methods used to elucidate molecular structures and several types of reactions. This is a college-level course that will be weighted.

### **PHYSICS I**

**H34030**

Grades: 10-12

6.4 Credits

*Prerequisites:* Students must have earned/met the following expectations:

- Successful completion of lab-based life science
- B- in Algebra I and Geometry, and
- Co-enrolled in Algebra II or higher mathematics

This college preparatory course is designed to provide a balanced approach of conceptual and mathematical understanding and skills in physics. Topics include fundamentals of motion, dynamics, momentum, energy, heat, vibrations and waves, sound and music, light, electricity, magnetism, atoms, and nuclei. While a conceptual approach to the subject is stressed, critical thinking skills are practiced.

**PHYSICS I ACCELERATED**

Grades: 10-12

**H34031**

6.4 Credits

*Prerequisite:* Students must have earned/met the following expectations

- Successful completion of lab-based life science
- Co-enrolled in Accelerated Algebra II or higher mathematics

This college preparatory course is designed to provide a balanced approach of conceptual and mathematical understanding and skills in physics. Topics include fundamentals of motion, dynamics, momentum, energy, heat, vibrations and waves, sound and music, light, electricity, magnetism, atoms, and nuclei. While a conceptual approach to the subject is stressed, critical thinking skills are practiced. It covers Physics I topics in greater depth, with more mathematics and at a faster pace than Physics 1. Topics in modern physics, wave applications, electronics, and engineering principles.

**AP PHYSICS 1**

Grades: 10-12

**H34033**

6.4 Credits

*Prerequisite:* Students must have earned/met the following expectations

- Successful completion of lab-based life science
- A- or higher in Algebra II, and Co-enrolled in Pre-Calculus or higher mathematics
- B in Physics I Acc/A Physics I

This full-year course is the equivalent of a college-level, first-semester algebra-based physics course. AP students are expected to develop a deep understanding of mechanics and to focus on applying their knowledge through inquiry labs. The full year also allows time for inclusion of physics content specified by state standards. The course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; mechanical waves and sound. It also introduces electric circuits, electric and magnetic fields, induction, and physical and geometric optics.

**AP PHYSICS C**

Grades: 10-12

**H34034**

6.4 Credits

*Prerequisite:* Students must have earned/met the following expectations

- Successful completion of lab-based life science
- A- in AP Physics I and Calculus AB may be taken concurrently OR
- B in AP Physics I plus a 4 or 5 on the AP Physics I exam and Calculus AB may be taken concurrently. OR

- A in Physics I (General Ed or Accelerated) and a B or higher in Calc AB

This course is the equivalent of a first-year university-level course in classical mechanics, electricity, and magnetism. It is recommended for students considering a college major in science or engineering. Supplementary topics are taken from modern physics, thermodynamics, optics, and wave mechanics. This course is recommended for students who plan to take the Advanced Placement Examination in physics in May of the enrollment year.

**INNOVATION ENGINEERING PHYSICS H34036**

Grades: 10-12

6.4 Credits

*Prerequisite:* Completion of Physics 1, Accelerated Physics I, AP Physics 1 or AP Physics C

For students who have enjoyed their experience in Physics 1, AP Physics 1 or AP Physics C and want to continue their physics studies with practical engineering applications, comes another course, which will uniquely prepare them for a future where the ability to innovate is essential and highly valued. The algebra-based course content is embedded in problem-based learning and has the possibility of individualized research. Students will learn the innovation engineering process and apply it in authentic projects. It is recommended that students have completed Engineering Drawing.

**PLANETARY SCIENCE ACCELERATED H34037**

Grades: 11-12

6.4 credits

*Prerequisite:* Students must have earned/met the following expectations:

- B+ in Accel. Algebra I/A- in Algebra I and
- B+ in previous years science class

This is an advanced science course that provides an introduction into the study of planetary and space science. The course begins with celestial mechanics, the Sun-Earth-Moon system, and history of astronomy. Following this will be an in-depth study of the structure, composition, activity, and interactions of objects in the Solar System. Further study will include stellar evolution, galaxies, and the universe. Relevant and current research will be incorporated into the coursework as appropriate, including student research with telescope observing programs. Application of content knowledge from Chemistry or Environmental Science and Algebra will be important in this course. Students are expected to conduct an independent research project to demonstrate understanding of advanced topics relevant to planetary science, astronomy, or related topics of personal interest.

**ANATOMY AND PHYSIOLOGY** **H34042**

Grade: 11 -12 6.4 Credits

*Prerequisite:* Students must have earned/met the following expectations:

- Successful completion of lab-based life science (Biology I/Accel. Biology) AND
- Chemistry I/Accel. Chemistry OR Physics

This course is designed for students who have a continuing interest in the biological sciences, with a focus on the structure and function of the human body. Many animal organ dissections are conducted, culminating in a cat dissection to provide students with observations of the relationship between structure and function. Students should demonstrate a mature demeanor and attitude to actively participate in all components of the course. In addition to dissections and in-class laboratory experiences, students read excerpts from two nonfiction books to deepen their understanding: *Stiff* and *Gulp*, both by Mary Roach. These novels contextualize learnings through postmortem experiments over the course of history as well as the pathway that food takes through our bodies. Students are challenged to apply their learning and critical thinking skills through case studies assessments throughout the school year.

**GENETICS** **H34043**

Grades: 11-12 6.4 Credits

*Prerequisite:* Students must have earned/met the following expectations

- Successful completion of lab-based life science (Biology I/Accel. Biology) OR
- Chemistry I/Accel. Chemistry OR Physics

In this genetics course, students learn the detail, structure, and function of DNA. All units involve real-world examples of how the genetics content affects human lives. Topics covered include cell division, cancer, reproductive technologies, heredity, DNA structure and function, epigenetics, and biotechnology. Lab work is an integral part of the curriculum, and the students will have the opportunity to use biotechnology tools to analyze and modify DNA. Students also read one nonfiction book per semester: *The Immortal Life of Henrietta Lacks* and *The Forever Fix*. These books apply many of the genetics concepts covered in the course and demonstrate how geneticists carry out the scientific process to develop therapies.

**ENVIRONMENTAL SCIENCE** **H34047**

Grades: 10-12 6.4 credits

*Prerequisite:* Students must have earned/met the following expectations:

- Successful completion of lab-based life science (Biology I/Accel. Biology) OR

- Chemistry I/Accel. Chemistry OR Physics

The Environmental Science course prepares students to become responsible citizens. The course centers on how humans interact with their environment allowing for learning that becomes more personal. Students develop an understanding about how personal choices affect the environment, human health, and the economy. The topics covered lend themselves to hands-on activities, research, and debate, providing students with a rich learning experience. This class will allow students to make informed decisions, understand and evaluate current environmental issues presented in the media, and develop skills and understandings from the Earth Sciences (ESS) as well as Engineering, Technology and Applications of Science (ETS). Students will examine the following units: Environmental Themes & Interdependence, Waste and Resource Management, Human Population Trends and Predictions, Energy Usage, and Sustainability. Each student self-selects an Environmental Science nonfiction novel from the class library to read all year as a supplement to in-class learnings. These novels are discussed regularly and are a component of the end-of-year assessment.

**AP ENVIRONMENTAL SCIENCE** **H34046**

Grades: 11-12 6.4 Credits

*Prerequisite:* Students must have earned/met the following expectations:

- A- in Biology I, and
- B+ in Chemistry I/ B+ in Physics I, and
- B in Algebra II

Capstone option for seniors: At least a B in Biology, Physics, and Chemistry, as well as a B- in Algebra I, Geometry, and Algebra II

AP Environmental Science is an introductory college level course that will provide the highly motivated student with the scientific principles and concepts necessary to understand relationships of the natural world. Students will be able to identify and analyze environmental problems, both natural and human-made, as well as examine various alternative solutions for resolving or preventing the problems. The following themes will be covered: energy conversions, earth as a single interactive system, human alterations of natural systems, the cultural and social context of environmental problems, and how human survival is dependent on the achievement of sustainable living systems. Special emphasis will be placed on how these five themes relate to current, local, regional, and world events.

**LA HORTICULTURA**

Grades 9 – 12

**H34044**

6.0 Credits

*Prerequisite:* Successful completion of Algebra 1 or higher mathematics and previous lab experience.

Course taught in Spanish and is open to any and all students who demonstrate Intermediate Mid proficiency as determined by scores in the AAPPL and/or interviews with Spanish teacher.

This course is for those students who have an interest in Horticulture, its effect on the environment, personal health, and community sustainability. The class integrates the practical application of horticulture as a means towards understanding how individual choices can influence or compromise the creation of a sustainable, healthy community. Some areas that students will explore are the changing face of Horticulture in NJ, native vs. exotic species in the landscape, biodynamic agricultural systems, soil as a thriving community, conventional vs. ecological landscape management, and creating livable communities through horticulture. Students are expected to collaborate and participate in school-based projects that reinforce learned themes and will be actively engaged with green communities of the school.

**EXERCISE SCIENCE**

Grades: 9 (&amp; 10th grade first-year ELL) 2.5 credits

**H34054***Prerequisite:* Completion of 8<sup>th</sup> grade science and Co-enrolled in Algebra I

Exercise Science is intended to examine the relationship between exercise and performance, with introductory exposure to the following themes: physiology and biomechanics, biochemistry, physics, growth, and development, along with the engineering design process. This program of study is designed to provide an effective blend of classroom instruction and practical experience. Students will apply their learning in performance-based assessments.

**FORENSICS**

Grades: 11-12 (12 Preference)

6.4 Credits

**H34057***Prerequisite:* Students must have earned/met the following expectations:

- Successful completion of lab-based life science (Biology I/Accel. Biology) AND
- Chemistry I/Accel. Chemistry OR Physics

Forensic Science is the application of scientific techniques and technology to the investigation of a crime, and the presentation of evidence in a court of law. This class emphasizes inquiry-based learning, deductive reasoning skills and higher-order thinking skills to analyze data presented in multi-day evidence

investigations. Students should be prepared to work in a collaborative environment contributing to multi-day investigations with individual accountability along the way. Students will build upon skill sets and content taught in biology **and** chemistry, and it is strongly encouraged that students take both courses to ensure success in the course. Students will investigate crime scene scenarios that build upon prior biology content such as the analysis of blood (genetics, typing and spatter) and DNA (genetics and statistics) and the use of a microscope for trace and microbiological evidence. Students should be prepared to dissect in the form of an autopsy applying anatomical language taught in the course. Students will use transferable math skills to conduct time of death calculations, blood spatter, bullet trajectory, entomological and anthropological analysis. An understanding of chemistry will prove useful in the detection of blood, chemical fingerprinting, toxicology, and fire investigation. Other skills learned will be fingerprint analysis and crime scene processing where students will need to pay attention to details and follow procedures so evidence can be submitted into court. Serial killers and forensic psychology will also be a topic of study. Students should have strong planning skills as there are two longer term individual assignments: True Crime Novel and Fast Forensics. Each student will select a novel from the Forensics library, their individual final project will connect their novel to units of students throughout the year, student check-ins will be provided. Students will also select two podcasts to present during the year to work on the 21<sup>st</sup> century skill of public speaking. Forensic Science is a different type of science course that fuses various content and skills learned in science and math courses, challenging you to apply prior knowledge and think critically.

**ENGINEERING**

Grades: 9 (and 10th grade first year ELL) 2.5 Credits

**H34055***Prerequisite:* Completion of 8<sup>th</sup> grade science and Co-enrolled in Algebra I

Engineers find solutions to pressing problems and turn their ideas into reality. Students adopt a problem-solving mindset as they apply their STEAM knowledge and skills. Students will work in a problem-based methodology as they identify an issue and then research, design, and test a solution, ultimately presenting their solution. The program's courses engage students in compelling, real-world challenges that help them become better collaborators and thinkers.

### THREE YEAR RESEARCH PROGRAM

Students apply to the 3-year Science Research Program during the second semester of their 9<sup>th</sup> grade year. The application process includes a writing sample, as well as a letter of recommendation. The overall goal of this program is for students to explore their passions and gain an authentic research experience. The scope and sequence of the course is as follows:

#### RESEARCH METHODS

**H34051**

Grades: 10-11

5.0 Credits

*Prerequisite:* Must gain pre-approval through the application process

A first-year student (typically 10<sup>th</sup> grade) develops reading, writing, and mathematical skills that will aid their research process. Students will read and discuss scientific papers, explore research ethics, develop survey-based projects, carry out wet labs, and compose both a literature review and a grant proposal. Students will continue the research process throughout the summer following Year One. Upperclassmen who are new to the district or missed the 9<sup>th</sup> grade application process for extenuating circumstances can apply for and enroll in the research methods course. Upon acceptance, the upperclassman will partake in the year one course and then continue to carry out a research project in their senior year.

#### RESEARCH APPLICATIONS ACCELERATED

**H34052**

Grades: 11-12

5.0 Credits

*Prerequisite:* Completion of Research Methods course with a C or higher

Second-year students (typically 11<sup>th</sup> grade) will finalize their research plan and begin collecting data. On a bimonthly basis, students will meet with their teacher mentor to discuss progress and troubleshoot. Students will continually read relevant scientific articles and communicate with scientists in the field to support their project. Students will be required to present their findings at the end-of-year PHS Research Symposium. Students may also present at external fairs, depending on the progress of their project. The research process may continue over the summer, depending on student progress.

#### RESEARCH ANALYSIS ACCELERATED H34053

Grades: 12

5.0 Credits

*Prerequisite:* Completion of Research Methods & Applications with a C or higher

A third-year student (12<sup>th</sup> grade) will continue their independent project with a focus on data analysis, extension questions, and outreach. When analyzing their data, students will be required to perform statistical analysis to appropriately portray trends and conclusions. The students will then thoroughly analyze their data to construct a written conclusion that connects their work back to their research question and other published data. The reports created by each year 3 student will be submitted to at least 2 scientific competitions or professional symposia (i.e., The Junior Science and Humanities Symposium at Rutgers University, Siemens Competition, Mercer County Science Fair). Students will also be required to present their findings at the Princeton High School Research Symposium.

## SOCIAL STUDIES

The mission of the Social Studies Department is to help students learn to make informed and reasoned decisions as citizens of a culturally diverse, democratic society in an interdependent world. History forms the core of the program offered by the department, but the central discipline is expanded and supported by insights and strategies drawn from geography, political science, economics, sociology, and anthropology. Instruction includes chronology, cause-effect reasoning, exercises in geographical literacy, information gathering, processing skills, strategies for effective communication, and ethical decision making. To meet New Jersey and district graduation requirements, students must successfully complete two years of United States History and the World History/Cultures course. Electives may be chosen in the senior year. Students may choose

electives in their junior year in addition to the required World History & Cultures course. Students, particularly those interested in pursuing studies in the humanities, are strongly encouraged to elect an additional year of social studies. Students are not permitted to take two AP history courses concurrently. Courses that permit in-depth investigation of the traditions of our own and various other world cultures, as well as those that introduce human behavior, add a valuable dimension to any student's education.

#### REQUIRED COURSES AND SEQUENCE

US History I--9<sup>th</sup> grade

US History II or AP US History--10<sup>th</sup> grade

World History & Cultures or AP World History--11<sup>th</sup> grade

**UNITED STATES HISTORY I** **H44010**  
Grade: 9 5.0 Credits

This required course traces the history of the United States from the arrival of the first Americans through the end of the 19<sup>th</sup> Century. It introduces the themes of balance between unity and diversity, the shaping of democracy, the search for opportunity, and the influence of geographical factors. It also examines European, Native American, and African interaction in Colonial America, the Revolution, the New Nation, the Constitution, the War of 1812, the development of democracy, the West, slavery, the Civil War, Reconstruction, and Industrialization.

**UNITED STATES HISTORY II** **H44020**  
Grade: 10 5.0 Credits  
*Prerequisite:* U.S. History I

This required course continues coverage of the themes of U.S. History into the 21<sup>st</sup> Century, including units on U. S. Imperialism, the First World War, the 1920's, the Great Depression, the New Deal, World War II, the Cold War, Vietnam, the Civil Rights Movement, and American political and social events up to the present time.

**AP UNITED STATES HISTORY** **H44021**  
Grades: 10-12 5.0 Credits  
*Prerequisites:* B+ in social studies courses

This demanding course is divided into nine units of study of American history from the colonial period to the present. Students are expected to complete regular reading assignments in a college-level text, a book of primary source documents, and a collection of American biographical essays. Homework will average one hour per night. Students are evaluated by means of quizzes, unit tests, essays modeled on the Advanced Placement exam format, and projects.

**AP GOVERNMENT AND POLITICS** **H44031**  
Grades: 11-12 5.0 Credits  
*Prerequisites:* B+ in social studies courses

This demanding course consists of an in-depth study of the workings of the American political system followed by a comparative analysis with the political systems of five other nations. Two college-level texts are used, and students should expect to complete regular, focused reading assignments. Additionally, the course will require long-term assignments and discussion of relevant contemporary events. Evaluation will be based on projects, marking period tests, and essays modeled on the Advanced Placement examination format. **This course does**

**not satisfy the United States History II requirement.**

**WORLD HISTORY & CULTURES** **H44040**  
Grade: 11 5.0 Credits  
*Prerequisites:* U.S. History I and U.S. History II or AP U.S. History.

This required course asks students to examine major civilizations, with the emphasis on the era from 1450 A.D. to the present. The course devotes particular attention to key political, economic, and cultural traditions and ideas, including the interactions between different civilizations.

**AP WORLD HISTORY & CULTURES** **H44041**  
Grade: 11 5.0 Credits  
*Prerequisites:* B+ in social studies courses

Students in the Advanced Placement World History course will study the evolution of human societies as they interact and change over time. Student understanding will be advanced through a combination of selective factual knowledge and appropriate analytical skills. The course will focus primarily on the last 1,000 years of global experience, but it will include a foundations section that identifies more long-standing influences on world history. Themes of the course will include the impact of interaction among major societies, the relationship between change and continuity, the effects of technology and demography, comparisons of social and political structures and gender structures, and the effects of cultural and intellectual developments. The course will be global in its focus, with no particular emphasis on one part of the world over another. The course extends to the present. **This course fulfills the state requirement for one year of World History.**

**AP EUROPEAN HISTORY** **H44050**  
Grades: 11-12 5.0 Credits  
*Prerequisite:* B+ in social studies courses

This demanding course consists of a broad study of European History beginning with the Renaissance and extending to the present. College level texts are used, and the student should expect to complete regular, focused reading assignments. Additionally, the course requires the writing of expository essays and research reports. Evaluation is based on tests, essays modeled on the Advanced Placement examination format, and projects/presentations. **This course does not satisfy the World History/Cultures requirement.**

**AFRICA** **H42051**  
Grades: 11-12 2.5 Credits

In this course, students study the vast, diverse continent of Africa - its regions, nations, and people. Students address issues related to political change, economic development, cultural diversity and national unity, and international relations. Particular attention is paid to the influence of history and geography.

**LATIN AMERICA** **H42052**  
Grades: 11-12 2.5 Credits

This course provides for study of Latin America and the Caribbean from a variety of perspectives. Special emphasis is placed on geography, literature, economics, and lifestyles. Four countries are singled out for in-depth study. Students are required to do a major term paper on the country of their choice.

**MIDDLE EAST** **H42053**  
Grades: 11-12 2.5 Credits

The focus of this class is review of the Middle East, with specific attention to the Arab-Israeli conflict and to U.S. foreign policy. Emphasis is placed on the historic and religious backgrounds of Muslims and Jews, the role of the West, the influence of oil, and the cultural diversity of the region.

**RUSSIA** **H42054**  
Grades: 11-12 2.5 Credits

In this course, the causes, and implications of recent changes in the lands of the former Soviet Union are investigated. By the time students complete this course, they can identify and explain key events and issues in the modern history of these fifteen nations and discuss reasonable scenarios for the future.

**HUMAN BEHAVIOR** **H44056**  
Grades: 11-12 5.0 Credits

Human Behavior, as an elective course open to juniors and seniors, is an introduction to key concepts, theories, and figures in the fields of psychology and sociology. The course is designed as an exploration of the self and the human condition. Through case studies, conversation and debate, research, and written work students explore topics ranging from human development theories to recent research findings on the brain, to group dynamics, multiculturalism, and social stratification. Quarterly and group projects bring the opportunity to refine research skills and synthesize what has been learned.

**ACCELERATED SOCIOLOGY** **H44058**  
Grades: 11-12 5.0 Credits  
*Prerequisites:* B+ in social studies courses

Sociology focuses on the systematic understanding of social interaction, social organization, social institutions, and social change. Major themes in sociological thinking include the interplay between the individual and society, how society is both stable and changing, the causes and consequences of social inequality, and the social construction of human life. Understanding sociology helps students discover and explain social patterns and see how such patterns change over time and in different settings. By making vivid the social basis of everyday life, sociology also develops critical thinking by revealing the social structures and processes that shape diverse forms of human life.

**CONTEMPORARY CRISES AND CURRENT EVENTS** **H44059**  
Grades: 11-12 2.5 Credits

This semester elective course is designed to make students more aware of the myriad of problems and issues facing both the United States and the larger global community. The curriculum will have a basic structure centered on existing problems, issues, and "hot spots" around the world – including the historical and cultural roots that have shaped these contemporary situations. Yet, the class will also spend significant time analyzing and discussing events as they develop on a weekly and even daily basis. Special attention will be given to the media in terms of bias, changing platforms for information, and the ways in which it shapes public discourse and national and global events.

**WORLD RELIGIONS** **H44060**  
Grades: 11-12 2.5 Credits

This semester elective for upperclassmen will examine various religious traditions around the world and within the United States and will focus on the history and major tenets of each faith. Students will also analyze various historical and contemporary instances of religious conflict (both violent and non-violent) as well as the controversies shaped by religious thought. Particular attention will be given to the ways in which religious differences and the misunderstanding of "the other" have catalyzed change and conflict historically and in our contemporary world. In addition, the course will involve a wide variety of written sources – from religious texts to secondary expository selections to contemporary articles to opinion pieces.

## RACIAL LITERACY

Grades: 10-12

H42062

2.5 Credits

This semester course will equip students with the knowledge and skills for understanding race and the issues of race in the United States today. It will serve as an interactive, informative, discussion- and project-based class that will allow students to critically analyze primary sources from current and historical events through different forms of media, including literature and art. By gaining a new perspective on the cultural divide in America, students will be prepared to handle racially influenced experiences with communication and passion.

## AP HUMAN GEOGRAPHY

Grades: 10-12

H42071

5.0 Credits

Human Geography focuses on our world as it exists today and explains how it got this way. Students in this yearlong course will become more engaged in contemporary global issues, more informed about multicultural viewpoints, and more geoliterate. They will learn the skills human geographers use to find out: Where is something located? Why is it there? What is the significance of the location? What does this mean for the future? By looking at the patterns and processes that have both shaped human understanding and altered the Earth's surface, they will see geography as a discipline relevant to the world in which we live; as a source of ideas for identifying, clarifying, and solving problems at various scales; and as a key component of building their global citizenship and environmental stewardship.

## CLASSICAL AND WORLD LANGUAGES

Students learn to communicate in a language other than English and understand the perspectives of its cultures. Since the program is designed to build language proficiency through a sequence of courses, we strongly encourage students to complete as many years of a language sequence as possible and to take the opportunity to study more than one language. Princeton High School offers sequential study in French, Japanese, Italian, Latin, Mandarin, and Spanish. Level I courses are open to all students in grade 9 who have had no previous experience with the language. The Supervisor of the World Language Department may approve enrollment in Level I courses for 10<sup>th</sup> and 11<sup>th</sup> grade students based on class numbers. Placement in level II and above is dependent on your grade and the recommendation of the previous year's teacher. Students who have completed one or more years of study prior to enrollment at PHS are placed by the teacher after a multi-modal evaluation is completed. Students wishing to study a language with which they have extensive experience in an immersion setting or of which they are a native or heritage speaker must be evaluated to determine appropriate placement. All students new to Princeton High School will have a placement evaluation prior to registering for a language course. The department supervisor determines final placement based on the results of the evaluation. **No student will enroll in a course other than the one for which they were recommended.** Since the level of language proficiency gained depends on the time spent in

meaningful communication, teachers provide instruction in the target language. They support students in their efforts to use the language actively, and they evaluate them based on performance and production as well as paper and pencil assessments. Continuing language study at Princeton University is an option for some students. Plan by checking requirements with Counseling and the department supervisor. This opportunity is available to 11<sup>th</sup> and 12<sup>th</sup> graders who meet all the criteria set by the University. This may include the necessity of taking a language course at PHS concurrently while studying at the University.

### FRENCH II

Grades: 9-12

H54000

5.0 Credits

*Prerequisite:* Recommendation of middle school teacher or previous experience with the language.

Students entering this class will demonstrate proficiency at the novice mid-level of the ACTFL proficiency guidelines. The target proficiency is novice high. This course is an immersion experience and is conducted entirely in French. It is a student-centered class; students are expected to participate and lead as much as possible. The class is divided into thematic units anchored on authentic texts and major evaluations are in the form of integrated performance assessments.

**FRENCH III** **H54001**  
Grades: 9-12 5.0 Credits  
*Prerequisite:* PHS French II or recommendation of the middle school teacher.

Students entering this class will demonstrate proficiency at the novice mid-level of the ACTFL proficiency guidelines. The target proficiency is novice high to intermediate low. This course is an immersion experience and is conducted entirely in French. It is a student-centered class; students are expected to participate and lead as much as possible. The class is divided into thematic units anchored on authentic texts and major evaluations are in the form of integrated performance assessments.

**ADVANCED FRENCH III** **H54002**  
Grades: 9-12 5.0 credits  
*Prerequisites:* Middle School French 3, and the teacher's recommendation

Students entering this class will demonstrate proficiency at the intermediate low level of the ACTFL proficiency guidelines. The target proficiency is intermediate mid. This course is an immersion experience and is conducted entirely in French. It is a student-centered class; students are expected to participate and lead as much as possible. The class is divided into thematic units anchored on authentic texts and major evaluations are in the form of integrated performance assessments.

**FRENCH IV** **H54003**  
Grades: 10-12 5.0 Credits  
*Prerequisite:* French III.

Students entering this class will demonstrate proficiency at the novice high to intermediate low level of the ACTFL proficiency guidelines. The target proficiency is intermediate low. This course is an immersion experience and is conducted entirely in French. It is a student-centered class; students are expected to participate and lead as much as possible. The class is divided into thematic units anchored on authentic texts and major evaluations are in the form of integrated performance assessments.

**ADVANCED FRENCH IV** **H54004**  
Grades: 9-12 5.0 Credits  
*Prerequisite:* Advanced French III.

This course continues to build from the Intermediate Mid language proficiency level in the three modes, Interpretive, Interpersonal, Presentational. The course, which is based on performance-based

assessment, is structured on a study of thematic units, and based on a reading of authentic texts. Transdisciplinary studies, critical thinking and problem-solving skills are emphasized. The course is conducted entirely in French.

**FRENCH V** **H54005**  
Grades: 11-12 5.0 Credits  
*Prerequisite:* French IV.

This course continues to strengthen proficiency in the language. The target proficiency level for speaking is Intermediate Low. The course is conducted entirely in French and major evaluations are in the form of integrated performance assessments.

**ADVANCED FRENCH V** **H54006**  
Grades: 9-12 5.0 Credits  
*Prerequisite:* Advanced French IV.

Historical, cultural, and literary texts serve as subjects for interpretation and discussion. Students apply their language skills in extensive oral and written expression. The class is divided into thematic units anchored in authentic texts and major evaluations are in the form of integrated performance assessments. This course prepares students for the AP and VIA (Cinema) French courses. Students entering this class will demonstrate proficiency at the Intermediate Mid-Level. This course is student-centered and conducted entirely in French.

**FRENCH VI** **H54008**  
Grades: 12 5.0 Credits  
*Prerequisite:* French V

This course continues to strengthen proficiency in the language. The target proficiency level for speaking is Intermediate Low. The course is conducted entirely in French and major evaluations are in the form of integrated performance assessments.

**FRENCH VI A LE CINÉMA FRANCOPHONE** **H54007**  
Grades: 11-12 5.0 Credits  
*Prerequisite:* French AP or French VA.

This seminar course centers on a variety of French language films that represent different genres. Students will view, discuss and critique many films, will relate them to culture and will place them in their social-historical context. Students will leave this class with a demonstrated proficiency at the Pre advanced level. The target proficiency level is

Advanced Low. This course is student-centered and conducted entirely in French. The class is divided into thematic units anchored in authentic texts and major evaluations are in the form of integrated performance assessments.

### **AP FRENCH LANGUAGE AND CULTURE**

**H54009**

Grades: 10-12 5.0 Credits

*Prerequisite:* Advanced French V

Students who take this course apply their French to the discussion of French history, culture, and contemporary life as well as to the interpretation of literature. Students enter at the Intermediate Mid-level. The course is designed to prepare students for the AP French Language exam.

### **ITALIAN I**

**H54021**

Grades: 9-11 5.0 Credits

This course develops language skills through a series of related activities. It focuses on the fundamentals of pronunciation, vocabulary, idiomatic expression, and grammar incorporated in basic conversation and writing and fosters an awareness of the global influence of the Italian community. Culture is an integral part of the curriculum. The targeted proficiency level is Novice High. Emphasis is on communication entirely in Italian.

### **ITALIAN II**

**H54022**

Grades: 9-12 5.0 Credits

*Prerequisite:* Italian I

This course builds on previously developed concepts and continues to develop linguistic and cultural proficiency, including the nuances of grammatical constructions, pronunciation, vocabulary, and idiomatic expressions. Emphasis in this immersion course is always on communication in Italian with the targeted proficiency level of Intermediate Low.

### **ITALIAN III**

**H54023**

Grades: 9-12 5.0 Credits

*Prerequisite:* Italian II

This course provides continued enhancement of the language skills, stressing the nuances of grammatical construction, pronunciation, vocabulary, and idiomatic expression in sustained oral and written communication. Students explore the interrelation of themes, concepts, sentiments, and styles of representative authors of Italian literature and of those dealing with the Italian American experience. The targeted proficiency level

is Intermediate Mid.

### **ITALIAN IV**

Grade: 9-12

*Prerequisite:* Italian III

**H54024**

5.0 Credits

Continuing to build from the Intermediate Mid language proficiency level in the three modes, Interpretive, Interpersonal, Presentational, this course strengthens proficiency in the language skills through the reinforcement of vocabulary, idiomatic expressions, and grammatical constructions. Critical thinking skills and fluency of expression are fostered through the interpretation of themes, concepts, sentiments, and styles of authors of Italy.

### **AP ITALIAN LANGUAGE AND CULTURE H54025**

Grades: 10-12

5.0 Credits

*Prerequisite:* Italian III or IV and recommendation of the teacher and/or department supervisor.

Students in AP Italian will increase their skill level in Italian language through directed and open conversation, selected readings from the AP syllabus and the completion of various interpretive tasks based on authentic texts and spoken passages. This course continues to build from the Intermediate Mid language proficiency level in the three modes: Interpretive, Interpersonal, and Presentational.

### **JAPANESE I**

Grades: 9-11

**H54030**

5.0 Credits

Through a series of related activities, this course develops communication skills in Japanese. Emphasis is on oral work, but students also learn to read and write in Hiragana, Katakana, and Kanji. Japanese culture is integrated into the lessons. The targeted proficiency level is Novice Mid.

### **JAPANESE II**

Grades: 9-12

*Prerequisite:* Japanese I

**H54031**

5.0 Credits

This course is a continuation of Japanese I. Using a variety of integrated activities, students are provided with the opportunity to continue developing their skills in listening, speaking, reading, and writing in Japanese. Students are expected to read and write Hiragana and Katakana. Japanese culture is integrated into the lessons. Class is conducted in the target language. Proficiency to enroll in this course is at the Novice-Mid level. The target proficiency level is Novice-High.

**JAPANESE III** **H54032**  
Grades: 9-12 5.0 Credits  
*Prerequisite:* Japanese II

This course strengthens previously mastered concepts and continues and expands the development of proficiency in the language skills. Japanese culture remains an integral part of the curriculum. Class is conducted in the target language. Proficiency to enroll in this course is at the Novice High level. The target proficiency level is Intermediate-Low.

**JAPANESE IV** **H54033**  
Grades: 9-12 5.0 Credits  
*Prerequisite:* Japanese III

This course strengthens proficiency in language and culture through the application of vocabulary, idiomatic expressions, and structures. Group dynamics are studied and applied as a vehicle for learning about Japanese culture. Independent reading includes short stories and essays. Independent reading and writing include short stories and essays. Class is conducted in the target language. Depending on enrollment, this course may be linked with AP Japanese. Proficiency to enroll in this course is at the Intermediate-Low level. The target proficiency level is Intermediate-Mid. Depending on enrollment, this course may be linked with Japanese AP.

**AP JAPANESE LANGUAGE AND CULTURE** **H54034**  
Grades: 9-12 5.0 Credits  
*Prerequisite:* Japanese III or IV and recommendation of the teacher and/or department supervisor

Students in AP Japanese will increase their skill level in Japanese language through directed and open conversation, selected readings from the AP syllabus and the completion of various interpretive tasks based on authentic texts and spoken passages. This course continues to build from the Intermediate Mid language proficiency level in the three modes, Interpretive, Interpersonal, Presentational.

**LATIN I** **H54040**  
Grades: 9-12 5.0 Credits

This course introduces the fundamentals of Latin vocabulary and grammar and, by association, English grammar, and derivatives. Greek and Roman mythology, history, art, and culture form the basis of readings, discussions, and student projects.

**LATIN II** **H54041**  
Grades: 9-12 5.0 Credits  
*Prerequisite:* Latin I

This course continues the development of Latin vocabulary, grammar, and translation techniques. Greek and Roman mythology, history, culture, and vocabulary etymology are stressed through readings, discussions, and individual projects.

**LATIN III** **H54042**  
Grades: 9-12 5.0 Credits  
*Prerequisite:* Latin II

This course strengthens translation skills through readings of Latin literature, beginning with Plautus and continuing through the Republic. Students are introduced to the politics and history of the Republic through selections from Cicero, Caesar, Catullus, and Ovid.

**LATIN IV** **H54043**  
Grades: 9-12 5.0 Credits  
*Prerequisite:* Latin III

This course continues the reading and translation objectives of Latin III through expanded readings in Latin literature. Students study the politics and history of the Roman Empire through readings from Horace, Virgil, Ovid, and Martial. Silver and Medieval Latin may also be read.

**LATIN STUDIES: MYTHOLOGY** **H54044**  
Grades: 9-12 5.0 Credits

Myths are primarily concerned with the human experience, especially its trials and tribulations. By reading stories that attempt to explain life's central issues, students will explore their own relationship to the world and to the different cultures around them. Myths challenge the reader to make sense of fundamental facts of life such as becoming an adult, confronting tragedy, family and social interaction, and the general vicissitudes of fortune. The course will include the study of Greek and Latin roots in English and the Romance Languages as well as an introduction to language structure in English and Latin. Through project-based learning activities, students will make and develop connections in the areas of science, history, visual art, and foreign language.

**AP LATIN** **H54045**  
Grades 10-12 5.0 Credits  
*Prerequisite:* Latin III or placement exam

Students in this course will closely read selections from the AP syllabus and other challenging works from ancient authors. They will increase their skill level in reading and analyzing Latin text from the standpoint of genre, history, and political context. The course will facilitate preparation for students who opt to sit for the AP Latin exam.

**MANDARIN I** **H54050**  
Grades: 9-11 5.0 Credits

In this beginning Mandarin language course, students will learn the *pinyin* transcription system for Chinese pronunciation. They will begin to recognize, read, and write Mandarin characters and use basic grammar and structure. Culture is an integral part of the curriculum. Taught exclusively in Mandarin with an emphasis on oral communication, the target proficiency level is Novice High. This course is **only** for beginners and **non-native** speakers.

**MANDARIN II** **H54051**  
Grades: 9-12 5.0 Credits  
*Prerequisite:* Mandarin I or significant previous experience with the language

Students will develop proficiency in the three modes of communication: Interpretive, Interpersonal, and Presentational. They will use combinations of words and phrases, sentences, and strings of sentences to develop written and oral communication. Culture remains an integral part of the curriculum. The course is taught exclusively in Mandarin with a target proficiency level of Intermediate Low.

**MANDARIN III** **H54052**  
Grades: 9-12 5.0 Credits  
*Prerequisite:* Mandarin II

Students' use of grammatical structures and vocabulary will become more complex, expanding speaking, listening, reading, and writing skills. They will continue to increase proficiency in the three modes of communication, moving from sentences to paragraphs. Cultural appreciation is a backdrop to the general curriculum. Exclusively taught in Mandarin, the target proficiency level is Intermediate Mid.

**MANDARIN IV** **H54053**  
Grades: 9-12 5.0 Credits  
*Prerequisite:* Mandarin III

This course will reinforce and supplement students' oral and written language skills. Students will be able to make presentations, write essays about real-life scenarios, and keep journals. They continue to learn basic idioms, and to use authentic materials. Students continue to increase proficiency in the three modes with culture an integral part of the instruction. The course is taught exclusively in Mandarin and the target proficiency level is Intermediate High.

**AP CHINESE LANGUAGE AND CULTURE H54054**  
Grades: 9-12 5.0 Credits  
*Prerequisite:* Mandarin III or IV and/or teacher recommendation

Students will use the three modes of communication to strengthen their proficiency in reading, comprehension, listening, speaking, and writing with greater emphasis on grammar, syntax, and idioms. This course promotes an appreciation of Chinese society and culture, both historic and current day. The course is taught exclusively in Mandarin and the target proficiency level is Intermediate High.

**EAST ASIAN STUDIES** **H52055**  
Grades: 10-12 2.5 Credits  
*Prerequisite:* Proficiency in Mandarin, Japanese, or Korean or Instructor/ Supervisor approval

This seminar course will offer a survey of the history, art, literature, political and economic aspects of the East Asia region comprising China, Japan, and Korea. The teacher and students will use primary sources both in the original language and translated to English to investigate the history of the region and its present-day role in the world. The use of technology, from researching examples of art to finding current articles, will be integral to the course.

**SPANISH I** **H54010**  
Grades: 9 - 11 5.0 Credits

This course is **only** for beginners and **non-native** speakers. Students who have had no prior knowledge of Spanish learn to communicate effectively, both orally and in writing, and develop an understanding of the culture of Spanish-speaking people in different regions of the world. Students write short paragraphs and engage in conversation on a regular basis. The class is student centered and entirely conducted in the target language using thematic units. The ACTFL proficiency level at the end of the year should be Novice-Mid.

**SPANISH II** **H54011**  
Grades: 9-12 5.0 Credits  
*Prerequisite:* PHS Spanish I or recommendation of the middle school teacher

This course continues the development of proficiency in Spanish. Pronunciation, vocabulary, idiom, and grammar are expanded to support oral and written communication and reading comprehension. Latin American culture is integrated in the course. Students write short paragraphs and engage in conversation on a regular basis. The class is student centered and entirely conducted in the target language using thematic units. The targeted ACTFL proficiency level at the end of the year is Novice-High.

**SPANISH III** **H54012**  
Grades: 9-12 5.0 Credits  
*Prerequisites:* PHS Spanish II or recommendation of the middle school teacher

This course develops language proficiency in expanded, sustained oral and written communication. Contemporary authors of Spain and Latin America are introduced through journals, periodicals, and cultural and literary texts. Students write short paragraphs and engage in conversation on a regular basis. The class is student centered and entirely conducted in the target language using thematic units. Students communicate at the Novice-High level.

**ADVANCED SPANISH III** **H54013**  
Grades: 9-12 5.0 Credits  
*Prerequisites:* Middle School Spanish 3 at the Intermediate-Low level

This course continues the development of proficiency reached in middle school Spanish classes. Students are expected to apply their language skills to sustained oral and written communication about past, present, and future events. Contributions of Hispanic and Latino communities are integrated into the lessons. The class is student centered and entirely conducted in Spanish using thematic units. The targeted proficiency level is Intermediate-Mid, and students enter at the Intermediate-Low level.

**SPANISH IV** **H54014**  
Grades: 10-12 5.0 Credits  
*Prerequisites:* Spanish III

Students work to increase fluency and comprehension of the language. They interpret the

practices, products, and perspectives of Spanish-speaking cultures. Vocabulary, use of idioms, and grammatical constructions are expanded and reinforced. Students who have successfully completed Spanish III A may **not** register for this class. The class is student centered and entirely conducted in the target language using thematic units. Students communicate in the Novice-High to Intermediate-Low level.

**ADVANCED SPANISH IV** **H54015**  
Grades: 9-12 5.0 Credits  
*Prerequisite:* Advanced Spanish III with a B or better

Students continue to apply the nuances of vocabulary, idiomatic expression, and grammatical constructions in expanded, sustained oral and written communication. The class is student centered and entirely conducted in the target language using thematic units focusing on Perú, history, geography, and eco-regions with performance-based evaluations. The targeted proficiency level is Intermediate-High, and students enter at the Intermediate-Mid level.

**SPANISH V** **H54016**  
Grades: 11-12 5.0 Credits  
*Prerequisite:* Spanish IV

This is a continuation of Spanish IV. Students who have successfully completed Spanish IV A may **NOT** register for this class. Students write short paragraphs and engage in conversation on a regular basis. The class is student centered and entirely conducted in the target language using thematic units. Students continue to increase proficiency and to reach the Intermediate-Low level.

**SPANISH VI** **H54018**  
Grade: 12 5.0 Credits  
*Prerequisite:* Spanish V

Students continue to apply vocabulary, idiomatic expression, and grammatical constructions in expanded, oral and written communication. Contemporary authors of Spain and Latin America are introduced through cultural and literary texts. Students write short paragraphs and engage in conversation on a regular basis. The class is student centered and entirely conducted in the target language using thematic units. Students communicate in the Intermediate-Low level.

**ADVANCED SPANISH V**

Grades: 9-12

**H54017**

5.0 Credits

*Prerequisites:* Advanced Spanish IV with a B or better

Cultural and literary texts serve as subjects for interpretation and discussion. Students will apply their language skills in extensive oral and written expression. This course will prepare students for the AP Spanish course, the cinema course and, in some cases, for the AP exam. The class is student centered and entirely conducted in the target language using thematic units. Students continue to increase communication at the Intermediate-High level.

**AP SPANISH LANGUAGE AND CULTURE H54020**

Grades: 9-12

5.0 Credits

*Prerequisite:* Advanced Spanish V with a B or better or Advanced Spanish IV and recommendation of the IVA and AP teachers

Students apply their Spanish to the discussion of Spanish history, culture, and contemporary life as well as to the interpretation of literature. Students prepare compositions as well as oral presentations. The course is designed to prepare students for the AP Spanish Language exam. The class is student centered and entirely conducted in the target language. The targeted proficiency level is pre-Advanced, and students enter at the Intermediate-High level.

**SPANISH VI A - EL CINE HISPANOHABLANTE****H54019**

Grades: 11-12

5.0 Credits

*Prerequisite:* Spanish AP or Spanish VA with a B or better

This seminar course centers on a variety of Spanish language films that represent different genres. Students will view, discuss, and critique many films, will relate them to culture and will place them in their social-historical context of Latin America. Additionally, they will learn about the filmmakers and cinematographic trends. The class is student centered and entirely conducted in the target language using thematic units. The targeted proficiency level is pre-Advanced, and students enter at the Intermediate-High level. Students at this level can opt to take the AP Spanish exam with previous teacher recommendation.

**LA HORTICULTURA**

Grades 9 – 12

**H34044**

6.0 Credits

*Prerequisite:* Successful completion of Algebra 1 or higher mathematics and previous lab experience.

Course taught in Spanish and is open to any and all students who demonstrate Intermediate Mid proficiency as determined by scores in the AAPPL and/or interviews with Spanish teacher.

This course is for those students who have an interest in Horticulture, its effect on the environment, personal health, and community sustainability. The class integrates the practical application of horticulture as a means towards understanding how individual choices can influence or compromise the creation of a sustainable, healthy community. Some areas that students will explore are the changing face of Horticulture in NJ, native vs. exotic species in the landscape, biodynamic agricultural systems, soil as a thriving community, conventional vs. ecological landscape management, and creating livable communities through horticulture. Students are expected to collaborate and participate in school-based projects that reinforce learned themes and will be actively engaged with green communities of the school.



# TIME MANAGEMENT

PRINCETON HIGH SCHOOL

## TIME MANAGEMENT

### WORKSHEET

*Adapted from Challenge Success, 2019*

**Time Budget:** Take a moment and estimate your time spent during a typical weeknight.



### Academics

Homework: Subject 1	
Homework: Subject 2	
Homework: Subject 3	
Homework: Subject 4	
Homework: Subject 5	
Homework: Subject 6	
Homework: Subject 7	
Homework: Subject 8	
Tutoring/Enrichment	
SAT/ACT Test Preparation	
University Course	
<b>Total Numbers of Academic Minutes a Day =</b>	



### Extracurriculars

Sports	
Community Service/Volunteer work	
Performing and/or Visual Arts	
Clubs	
Job/Work	
Other	
<b>Total Numbers of Extracurricular Minutes a Day =</b>	



### Unstructured Time

Friends including social media	
Family activities, chores/caring for family	
Necessities (transportation, eating, hygiene)	
Naps	
Other (Video Games, hobbies)	
<b>Total Numbers of Unstructured Minutes a Day =</b>	

$$\begin{array}{r}
 \underline{\hspace{2cm}} \quad + \quad \underline{\hspace{2cm}} \quad + \quad \underline{\hspace{2cm}} \quad = \quad \underline{\hspace{2cm}} \\
 \text{Total Academics} \quad \text{Extracurriculars} \quad \text{Unstructured Time} \quad \text{MINUTES USED} \\
 \\
 \underline{\hspace{2cm}} \quad + \quad 421 \quad + \quad 480 \quad = \quad \boxed{\hspace{2cm}} \\
 \text{MINUTES USED} \quad \text{School Day} \quad \text{Minimum Sleep} \quad \text{TOTAL MINUTES USED DAILY} \\
 \hspace{10em} (7:50-3:21) \quad (8 \text{ hours}) \\
 \\
 \boxed{\hspace{2cm}} \quad > \text{ or } < \quad 1440 \\
 \text{TOTAL MINUTES USED DAILY} \quad \text{MINUTES IN A DAY}
 \end{array}$$

# TIME MANAGEMENT

## WORKSHEET

*Adapted from Challenge Success, 2019*

In order to make sure that we make the most out of our day, we should lay out and plan the basic elements of our day. These include the estimated time spent in the following areas of our lives: academics, extracurricular, unstructured, and rest.

### **Academics:**

Everyone has been given a sheet that outlines the estimated homework load that correlates to specific courses. Use these times to fill out the Minutes per Day table for your expected school schedule for next year. Keep in mind the times are estimates and may take less or more on any given night.

### **Extracurricular:**

This section is about structured time outside of the school day that students are committing their time to. For example, students may participate in clubs, sports, community service, part-time jobs, etc.

### **Unstructured Time:**

This section accounts for daily activities that might not be as structured as the other categories, but that are still necessary. Time spent in this category may be composed of the activities that students choose to do. For example, time with friends, social media, relaxing, decompressing, and reflecting and family time (i.e. games, hiking, etc.)

### **Rest:**

According to research, teenagers actually need more sleep than students ten and younger because they are going through a developmental stage which allows for cognitive maturation. It is recommended that our students receive around 9.5 hours of sleep a night (Johns Hopkins University, 2019). This sleep helps support their brain development, physical growth, and has been correlated as a factor that can protect against depression (Johns Hopkins University, 2019). We incorporated a minimum of 8 hours into their time budget. If their schedule does not allow for the suggested 9.5 hours sleep, it is recommended that an adjustment to other time commitments is addressed to make sleep a priority in their lives.

### References:

Challenge Success. (2019). Challenge Success Time Management Worksheet. Retrieved from <http://www.challengesuccess.org/wp-content/uploads/2019/11/Time-Management-Worksheet.pdf>

Johns Hopkins University. (2019). Teenagers and sleep: How much sleep is enough? *John Hopkins Medicine*. Retrieved from <https://www.hopkinsmedicine.org/health/wellness-and-prevention/teenagers-and-sleep-how-much-sleep-is-enough>

## **ELECTIVES PROGRAM**

The following delineates how electives will support meeting graduation requirements (\* denotes a semester course). Please note: two (2) semester courses are required to meet the 5-credit graduation requirement in Fine, Visual & Performing Arts and 21<sup>st</sup> Century Life Skill & Career.

### **Fine, Visual & Performing Arts**

Studio Art  
The Art of Craft  
Studio Art II & III (2D)  
Studio Art II & III (3D)  
Studio Art IV  
AP Art History  
Tiger Band I & II  
Nassau Band I & II  
PHS Jazz Ensemble  
Princeton Studio Band  
Repertoire Orchestra  
Sinfonia  
PHS Orchestra  
AP Music Theory  
Chorale I & II  
Cantus  
PHS Choir  
Drama I & II  
Drama Seminar  
Musical Theatre  
Dance  
Public Speaking\* (Class of 24)  
French VIA (Class of 24)  
Spanish VIA (Class of 24)

### **Practical Arts (21st Century Life & Career)**

Python Programming  
Intro to Java\*  
Object Java\*  
AP Computer Science  
Algorithms & Data Structures-Advanced  
School-to-Work  
Adult Daily Living

Mercer County Technical School

Accounting I  
AP Microeconomics\*  
AP Macroeconomics\*  
Business Ethics\*  
Personal Finance\*  
Economics\*  
Entrepreneurship\*  
Financial Planning\*  
Engineering Drawing  
Architecture  
Advanced Architecture  
Computer Graphics  
Cybersecurity  
Contemporary Economic Issues  
Computer Science Principles  
Media Studies \*  
Filmmaking\*  
Multimedia Special Effects\*  
Video Production I & II\*  
Journalism I & II\* (Class of 25-27)  
Public Speaking\* (Class of 25-27)  
App Development

### **Financial Literacy**

AP Macroeconomics\*  
AP Microeconomics\*  
Personal Finance\*  
Economics\*  
Entrepreneurship\*

### **Racial Literacy (Class of 2025+)**

PIRL Online- Princeton Introduction  
to Racial Literacy