



**RUTGERS PREPARATORY SCHOOL**

*UPPER SCHOOL CURRICULUM GUIDE*  
*2022/2023*

## TABLE OF CONTENTS

Table of Contents_____	1
Graduation Requirements_____	2
Academic Information_____	3-10
Required Courses by Grade Level_____	11-12
Humanities Department Courses_____	13-25
Mathematics Department Courses_____	26-31
Science Department Courses_____	32-39
World Languages Department Courses_____	40-50
Computer Education Department Courses_____	51-53
Theater & Dance Department Courses_____	54-55
Music Department Courses_____	56-58
Visual Arts Department Courses_____	59-65
Health Department Courses_____	66
Physical Education Department Courses_____	67
College Counseling Courses & Special Programs_____	68

## **RUTGERS PREPARATORY SCHOOL -- GRADUATION REQUIREMENTS**

**Full year courses receive 1 credit; semester courses receive 0.5 credits. A minimum of 20 credits are required for graduation.**

**HUMANITIES:** A full year of English is required in grades 9-12. Students are required to take a full year of History in grades 9, 11, and 12. Foundations of Civilizations is required in 9th grade, U.S. History is required for 11th graders, and 12th graders must elect a year of History. 10th Grade History study, although not required, is strongly advised.

**MATHEMATICS:** Students are required to take one full-year math course each year during grades 9, 10, and 11. Algebra 2 must be completed by the end of grade 11 and at least one elective course (either semester or full year) during grade 12. Introduction to Computer Science and AP Computer Science may be considered mathematics electives.

**SCIENCE:** Students are required to take two years of laboratory Science. One year must be a life science (Biology) and one year must be a physical science (Chemistry or Physics). Advanced study is strongly advised.

**WORLD LANGUAGES:** All students are required to take two consecutive years of the same World Language in the Upper School. Advanced study is strongly advised. International students who start at Rutgers Prep in 9th grade are required to fulfill this graduation requirement but may delay the start of World Language study until 10th grade, if necessary. The World Language requirement is waived for International students who start at Rutgers Prep in grades 10 or higher.

**VISUAL ARTS, THEATER & DANCE, MUSIC, COMPUTER EDUCATION:** All students must take two credits in Visual Arts, Theater & Dance, or Music. Multimedia Design, a course offered in the Computer Education Department, may be considered an art elective.

**HEALTH:** All students are required to take one semester of Health in 9th (spring semester), 10th (fall semester - Drivers Education), and 11th grade (fall semester), as well as participate in the College Bound program in 12th Grade (spring semester).

**PHYSICAL EDUCATION:** All students are required to take one semester of Physical Education in 9th (fall semester) and 10th Grade (spring semester). A semester elective (HIIT) is available for 10th, 11th and 12th graders by approval, and may be taken in place of the 10th grade Physical Education requirement.

**JUNIOR SEMINAR/SENIOR SEMINAR:** All students are required to take Junior Seminar during the spring semester of 11th Grade and Senior Seminar during the fall semester of 12th grade.

**COMMUNITY SERVICE:** All students are required to complete a minimum of 10 hours of community service in each grade level, with at least 5 hours of service taking place outside of Rutgers Preparatory School. Honors (50 hours or more) and Honors 250 (250 hours or more) are possible. Honors 250 is denoted with special designation on the transcript.

**INNOVATIONS:** All students are required to complete Innovations each year, graded as a Pass/Fail and included on the transcript.

## ACADEMIC INFORMATION

### ADVANCED PLACEMENT (AP) AND HONORS LEVEL COURSES

Honors level and AP level courses are available by departmental approval. 10th graders may take up to 2 AP courses, 11th graders up to 3 AP courses, and 12th graders up to 4 AP courses. Students with a strong academic history who wish to enroll in one additional AP course beyond the grade level maximum may appeal to the Upper School Assistant Principal through application. Course Recommendation appeals for honors or AP level courses must be made through application to departments and may require a placement test or writing sample.

Underclassmen enrollment in an AP course requires taking the corresponding AP exam in May. Seniors may elect to be exempt from AP exams by submitting an application to the Upper School Principal. Honors level courses earn a one-third grade bump (GPA Points +0.333) when calculating GPA and AP level courses earn a two-thirds grade bump (GPA Points +0.667) when calculating GPA.

#### **GRADE SYSTEM (based on a 4.0 scale)**

<b>Grade</b>	<b>Numerical Percentage</b>	<b>GPA Points</b>	<b>Honors GPA Bump</b>	<b>AP GPA Bump</b>
A+	100 - 97	4.333	4.666	5.0
A	96 - 93	4.0	4.333	4.667
A-	92 - 90	3.667	4.0	4.334
B+	89 - 87	3.333	3.666	4.0
B	86 - 83	3.0	3.333	3.667
B-	82 - 80	2.667	3.0	3.334
C+	79 - 77	2.333	2.666	3.0
C	76 - 73	2.0	2.333	2.667
C-	72 - 70	1.667	2.0	2.334
D+	69 - 67	1.333	1.666	2.0
D	66 - 63	1.0	1.333	1.667
D-	62 - 60	0.667	1.0	1.334
F	59 - 0	0	0	0

## **COURSES**

A minimum of 5 courses per semester are required within the 8-period, rotating schedule, including a minimum of 4 courses from the Humanities, Mathematics, Science, and World Languages Departments, as well as fulfilling all grade level course requirements. Choir, Orchestra, Band, or Dance may be scheduled during “9th period” (2:25-3:05 pm daily) in addition to the minimum five courses.

As a maximum, students are allowed to schedule 7 courses in the schedule, with a maximum of 6 core academic courses. In addition, Study Hall and one course within the PE/Health/Driver’s Education/Junior Seminar/Senior Seminar sequence are also required each year as part of a student’s schedule.

**NOTE:** Students signing up for AP courses and all students signing up for senior electives - enrollment requires permission of the department, and for some courses a writing sample or placement test.

## **ACADEMIC EVALUATION**

A grade of D- represents the minimum level of achievement for academic credit and is required to meet prerequisite requirements for advancement into the next level course. Departmental approval may also be required for advancement. In Mathematics and World Languages, where subsequent study depends substantially upon the mastery of fundamental material, a grade of C- is considered the minimum level of achievement. Grades below the minimum must be reinforced with a successful summer review program and minimum achievement on a placement test before moving on to the next level.

As you work to design your academic program, please consult with your advisor or with members of the Upper School administration if there are any questions about requirements or course sequencing not addressed in this document.

## **ADDING/DROPPING/CHANGING LEVELS OF COURSES**

Below is a description of the procedures to add a course, drop a course, or change levels of a course for each school year. Exact dates will vary annually based on the Upper School calendar.

The add/drop period for courses will occur to start both the fall and spring semesters. Course changes are initiated via email with the Upper School Assistant Principal. Please check in person with the Upper School Assistant Principal to see if there is space in a course and can be placed in your schedule before initiating a course change. All course changes require permission from parents/guardians before any change of schedule shall take place.

Adding and/or dropping a course must preserve the minimum number of courses required (5) or the maximum number of courses (7), must preserve at least one study hall period either during the Periods 1-8 rotation or 9th period, and must preserve any required courses for your grade level.

### **Adding a Course**

The deadline to add a fall semester course is within the first two weeks of the start date of the course. There must be space available in the course and it must fit into your schedule to be considered.

The deadline to add a yearlong course is within the first three weeks of the start date of the course. There must be space available in the course and it must fit into your schedule to be considered.

The deadline to add a spring semester course is within the first two weeks of the start date of the course. There must be space available in the course and it must fit into your schedule to be considered.

### **Dropping a Course**

The deadline to drop a fall semester course without any record on your transcript is within the first 30 days of courses. Between the first 30 days and the fall mid-semester point for Grades 9-11, you may drop a fall semester course with a WP (Withdrawn Passing) or WF (Withdrawn Failing) on your transcript. Seniors are not permitted to have a WP or WF on a transcript. No drops will be allowed for fall semester courses after the fall mid-semester point.

The deadline to drop a yearlong course without any record on your transcript is fall mid-semester point. Between the fall mid-semester point and December 1, you may drop a yearlong course with a WP or WF on your transcript. Seniors are not allowed to have a WP or WF on a transcript. No drops will be allowed for yearlong courses after December 1.

### **ADDING/DROPPING/CHANGING LEVELS OF COURSES (continued)**

The deadline to drop a spring semester course without any record on your transcript is within the first 30 days of courses for the spring semester. Between the first month of spring semester courses and the spring interim point for Grades 9-11, you may drop a fall semester course with a WP (Withdrawn Passing) or WF (Withdrawn Failing) on your transcript. Seniors are not allowed to have a WP or WF on a transcript. No drops will be allowed for fall semester courses after the spring interim point.

### **Changing Levels of a Course (AP to Honors OR Honors to Regular)**

The deadline to change levels of a course with no record on your transcript is December 1. After this point, no level changes will be permitted unless advised by a teacher.

## **GRADING PERIODS**

Below is a description of the grading periods for each school year. Exact dates vary based on the annual master schedule.

### **Fall Mid-Semester**

The Fall Mid-Semester grade is a snapshot of progress during the first half of the fall semester. This marking period occurs from the first day of school to approximately the first week of November. A Fall Mid-Semester grade will be assigned in early November which is a grade for the course at that point of the semester.

### **Fall Semester**

The Fall Semester grade is assigned following the end of the fall semester. This marking period occurs from the first day of school to approximately mid-January. A Fall Semester grade will be assigned following the end of this marking period which is a grade for the course for the fall semester.

### **Spring Mid-Semester**

The Spring Mid-Semester grade is a snapshot of progress during the first half of the spring semester. This marking period occurs from approximately mid-January until just prior to Spring Break. A Spring Mid-Semester grade will be assigned following Spring Break which is a grade for the course at that point of the semester.

### **Spring Semester**

The Spring Semester grade is assigned following the end of the spring semester. This marking period occurs from approximately mid-January to the end of the school year. A Spring Semester grade will be assigned following the end of this marking period which is a grade for the course for the spring semester.

## **GRADES/HONORS ON THE REPORT CARD**

### **Fall Mid-Semester / Spring Mid-Semester**

Assigned at the midpoint of both the fall and spring semesters representing a grade in the course at that point. This is a grade in progress and will continue until the end of the semester to determine the semester grade.

### **Midyear Exam / Final Exam**

Midyear exams and Final exams will also be reported on the report card, if applicable. Certain courses administer both Midyear and Final exams while other courses may only administer a Midyear exam or Final exam. There are also courses, based on the nature of the content, that do not administer exams.

### **Fall Final Grade / Spring Final Grade**

A Fall Final grade and Spring Final grade will be assigned in a full year course following the fall and spring semesters. The Fall Final grade is derived from the Fall Semester grade and Fall Semester exam, if applicable. The Spring Final grade is derived from the Spring Semester grade and Spring Semester exam, if applicable.

### **Final Grade**

A final grade will be assigned whenever a course ends. This includes a fall semester course, a spring semester course, or a full year course.

### **Honors and Honors With Distinction on the Report Card**

Honors or Honors with Distinction may be noted on the report card following semesters based on achievement. Honors will be noted for a student that achieves a B or higher in all courses during a semester. Honors With Distinction will be noted for a student that achieves an A- or higher in all courses during a semester.

## **GRADES/HONORS ON THE TRANSCRIPT**

The only grades that appear on an end of year transcript are Final Grades for courses taken for credit (either during the academic year or summer). Final grades in summer courses are not factored into GPA calculations but will appear on the transcript. Honors or Honors with Distinction may be noted on the transcript based on achievement. Honors will be noted for a student that achieves a B or higher as a Final Grade in all courses during the school year. Honors With Distinction will be noted for a student that achieves an A- or higher as a Final Grade in all courses during the school year.

## **GRADE POINT AVERAGE (GPA) CALCULATIONS**

Cumulative weighted grade point average (GPA) is calculated for all students at the midyear and again at the end of the year following final grades for classes and credits earned. Year GPA is also included on transcripts for each grade level.



## **COURSE REQUESTS PROCEDURES**

Course Requests for the subsequent academic year will take place in the spring of the current academic year. Prior to Course Requests, teachers will enter Course Recommendations into ArgoNet based on performance in the current year courses and the most appropriate placement for the following year. Students have the opportunity to appeal Course Recommendations for reconsideration by the Department. Course Requests require parental approval before being entered by students into ArgoNet.

## **COMMUNICATION**

Rutgers Prep utilizes ArgoNet to communicate with families. ArgoNet can be found on the Rutgers Prep website ([rutgersprep.org](http://rutgersprep.org)) and will allow for communication between the school and families.



Using a login, families will be able to inquire about Rutgers Prep, apply, enroll, re-enroll, pay tuition, schedule courses, manage coursework, view communication from teachers/administration (Official Notes/Messages), view report cards and transcripts, and much more.

For assistance with ArgoNet, please contact our Director of Technical Services, Mr. Mark Nastus via email ([nastus@rutgersprep.org](mailto:nastus@rutgersprep.org)) or 732-545-5600.

## **ACADEMIC ACKNOWLEDGEMENT PROGRAM**

The Academic Acknowledgement Program will recognize students graduating with a concentration or emphasis in particular areas of study while at Rutgers Preparatory School. The criteria to be eligible for a concentration and/or emphasis are listed below.

### **CONCENTRATIONS**

Students graduating with a Fine Arts Concentration will complete four full-year courses of study in one of the Fine Arts programs listed below. Recognition will also be placed on the student transcript. (*Full year courses may be a combination of two semester courses*)

*Ceramics*

*Drawing and Painting*

*Theater*

*Dance*

*Music (Band, Orchestra, and Choir)*

*Architecture*

### **EMPHASIS**

Students earning Certificates of Academic Emphasis will complete courses listed below as set by the Department Chairs and the Upper School Administration. Recognition will also be placed on the student transcript.

*Engineering*

AP Computer Science

At least one other post-AP Computer Science course

AP Calculus (either AB or BC)

At least one post-AP Calculus course (Advanced Topics in Mathematics - Applied or Abstract)

AP Physics or Honors Physics or Material Science

*Humanities*

Honors English 2 or AP World History

AP English Language & Composition

AP English Literature & Composition

AP US History

At least one other AP History course in Grade 12

At least four consecutive courses in World Languages

## **ACADEMIC ACKNOWLEDGEMENT PROGRAM (continued)**

### *Science & Research*

One Chemistry course  
One Physics course  
Honors or AP Biology  
Student Research  
Advanced Student Research

### *Mathematics*

AP Calculus (either AB or BC)  
Any 2 of the following courses:  
-Advanced Topics in Mathematics (Applied)  
-Advanced Topics in Mathematics (Abstract)  
-Multivariable Calculus (online course through Global Online Academy)

### *Visual & Performing Arts*

Eight full year courses in Music, Visual Arts and/or Theater & Dance  
(Full year courses may be a combination of two semester courses)

## **REQUIRED COURSES BY GRADE: 2022/2023**

### **9TH GRADE:**

English 1  
Foundations of Civilizations  
Mathematics  
World Language  
Environmental Science OR Chemistry OR Honors Chemistry  
Visual Arts, Theater & Dance, Music, or Computer Education Elective  
Physical Education 9 / Health 9  
Study Hall

#### **Electives:**

Introduction to Acting  
Topics in Dance  
International Dance & Choreography  
Music Electives  
Drawing and Design  
Ceramics 1  
Architecture 1  
Computer Education Electives

### **10TH GRADE:**

English 2 (Regular OR Honors)  
Mathematics  
Biology OR Honors Biology OR AP Biology  
World Language  
Visual Arts, Theater & Dance, Music, or Computer Education Elective  
Drivers Education (Health 10) / Physical Education 10  
Study Hall

#### **Electives:**

World History (Regular or AP) OR History Elective  
Music Electives  
Theater & Dance Electives  
Visual Arts Electives  
Computer Education Electives  
World Language

## **REQUIRED COURSES BY GRADE: 2022/2023 (continued)**

### **11TH GRADE:**

English 3, Honors English 3 OR AP English Language & Composition  
Mathematics  
U.S. History OR AP U.S. History  
Health 11 / Junior Seminar  
Study Hall

### **12TH GRADE:**

English elective (full year OR 1 fall semester & 1 spring semester course)  
Math elective (full year OR 1 fall semester course OR 1 fall semester & 1 spring semester course)  
History elective (full year OR 1 fall semester & 1 spring semester course)  
Senior Seminar  
Study Hall

### **Junior and Senior Electives:**

Mathematics Electives  
Science Electives  
Humanities Electives  
World Language Electives  
Theater & Dance Electives  
Music Electives  
Visual Arts Electives  
Computer Education Electives  
Physical Education Electives

## **HUMANITIES [English]**

### **ENGLISH 1**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

In English I, students explore the theme of “Coming of Age” through a wide variety of literary texts, including *Romeo and Juliet*, *The Absolutely True Diary of a Part-Time Indian*, *Persepolis*, and *The Odyssey*. The emphasis in this course is on building foundational critical reading, thinking, and writing skills, and on learning how to engage in literary analysis. Students will also complete a unit on research skills that emphasizes how to effectively and responsibly engage secondary sources and how to use MLA formatting.

**PREREQUISITE: None**

### **ENGLISH 2**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

In English 2, students read texts that examine the theme of “The Tragic Hero” from a variety of countries. Major works in this course include *The Theban Plays*, *The Great Gatsby*, *Macbeth*, and *Things Fall Apart*. Students in English 2 will continue to build on the skills they developed in English I, with particular emphasis on clear writing, close reading, and literary analysis.

**PREREQUISITE: English 1**

### **HONORS ENGLISH 2**

*Credits: 1*

*Length: Academic year*

*Level: Honors*

*Meeting Times: Periods 1-8 Rotation*

Honors English 2 follows a similar trajectory as English 2, however the pace of the course is accelerated. In addition to the major works covered in English 2 (*The Theban Plays*, *The Great Gatsby*, *Macbeth*, and *Things Fall Apart*) students in this class will read *Pride and Prejudice* and *A Doll House*. Like English 2, Honors English 2 emphasizes close reading and critical writing skills. Students in this class will be expected to engage regularly in authentic and independent literary analysis, however, and less emphasis will be placed on reviewing the basics of the writing process.

**PREREQUISITE: English 1, teacher recommendation, and departmental approval**

### **ENGLISH 3**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

English 3 concentrates primarily on writers from the United States, offering 11th graders the opportunity to make connections to the material they are learning in their US History courses. Works in this course include *The Crucible*, *Their Eyes Were Watching God*, and *A Raisin in the Sun*, as well as poetry selections and short works of American fiction and nonfiction. Students in English 3 continue to develop skills in literary analysis, close reading, and critical writing. They are also expected and encouraged to engage in meaningful conversations about the assigned readings through class discussions and informal writing tasks.

**PREREQUISITE: English 2 or Honors English 2**

### **HONORS ENGLISH 3**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

Like English 3, Honors English 3 focuses primarily on authors from the United States. This advanced course also includes a unit on Shakespeare's *Hamlet* to help prepare students who are interested in continuing on to AP English Literature in their senior year. Other works in Honors English 3 include *The Scarlet Letter*, *Their Eyes Were Watching God*, and *A Raisin in the Sun*, as well as an extensive collection of poems, short stories, and non-fiction texts. Like English 3, Honors English 3 develops skills in literary analysis through formal and informal writing, periodic quizzes, class discussion, and essay tests. The pace of Honors English 3 is faster than that of English 3, however, and some of the texts covered in the course are more challenging.

**PREREQUISITE: English 2 or Honors English 2, teacher recommendation, and departmental approval**

### **ADVANCED PLACEMENT ENGLISH LANGUAGE AND COMPOSITION**

*Credits: 1*

*Length: Academic year*

*Level: AP*

*Meeting Times: Periods 1-8 Rotation*

AP English Language and Composition is a college-level, non-fiction course that focuses on rhetorical analysis, rather than literary analysis. The class follows the AP Curriculum set out by The College Board using a textbook, *The Language of Composition*, to help navigate the new skills students are building. Each year, students in this course examine a number of non-fiction texts from this larger anthology. In order to ensure a smooth transition for students interested in taking AP English Literature and Composition as seniors, students in this class also read *Hamlet* and *The Scarlet Letter*. This is a very advanced course that culminates in a rigorous (3+ hour) written exam. Students are expected to have strong critical reading and writing skills entering this class.

**PREREQUISITE: English 2 or Honors English 2, teacher recommendation, and departmental approval with submission of an in-class writing sample**

## **ADVANCED PLACEMENT ENGLISH LITERATURE AND COMPOSITION**

*Credits: 1*

*Length: Academic year*

*Level: AP*

*Meeting Times: Periods 1-8 Rotation*

In this rigorous Advanced Placement course, reading is varied and challenging. The course asks students to examine the techniques of various writers closely. Admission is by permission of the department; a writing sample is required. It is assumed that applicants have facility expressing themselves on paper. Typical works might include: *Beloved*, Toni Morrison; *Far From the Madding Crowd*, Thomas Hardy; *The Awakening*, Kate Chopin; *Othello*, Shakespeare; and many poems, both modern and classical.

**PREREQUISITE: English 3, Honors English 3, or AP English Language and Composition, teacher recommendation, and departmental approval with submission of an in-class writing sample.**

## **CREATIVE WRITING**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This class will be a year-long commitment in which students will study short stories, poetry, children's literature, novel writing, and screenwriting. All students will be required to write their own short stories, poems, a book proposal, a children's literature book, and a short screenplay. Students will read both modern and classical short stories and poems, revise their own drafts, submit steady written feedback for their peers, and participate in intensive peer workshops throughout the year. Students will also submit their work to Scholastic's Art and Writing Awards.

**PREREQUISITE: Open to Juniors and Seniors, with Seniors given priority. Interested students need to submit a creative writing sample for departmental approval. Juniors may only take this course in addition to their core English course (English 3, Honors English 3, or AP English Language and Composition).**

## **COMEDY**

*Credits: 0.5*

*Length: Fall semester*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

We will explore the structure of comedy as it is employed in plays, film scripts, short stories, novels, and poetry. An emphasis will be placed on how language is utilized to generate humor and how the various elements of a piece of art guide the comic experience. The course will challenge students to create their own theories as to the structure of comedy, and the final exam will include the opportunity for students to present their theories and analyze the theories of their peers. Works to be read might include Aristophanes's *The Frogs*, Shakespeare's *The Tempest*, Swift's *A Modest Proposal*, television scripts for *Seinfeld*, and selections by Mark Twain, Lewis Carroll, and Garrison Keillor from the *Oxford Book of Humorous Prose*.

**PREREQUISITE: Open to Seniors**



## **DYSTOPIAN LITERATURE**

*Credits: 0.5*

*Length: Fall semester*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

The acclaimed author Lauren Oliver describes works of dystopian fiction as “novels that help people process their fears about what the future might look like; further, they usually show that there is always hope, even in the bleakest future.” This course will explore the concept of dystopia, asking why it exerts such a powerful pull over the literary imagination. We will explore the conventions and inventions of dystopian fiction, considering issues of race and ethnicity, the environment, class divides, the management of power in political structures, forms of gender and sexuality, and the paradox of technology. Students will have a chance to engage with these topics in both critical and creative formats, through short response papers, Socratic Seminars, Dialectical Journals, and a project-based assessment in which they will imaginatively represent a place of their own design. Works may include *A Clockwork Orange*, *2BRO2B*, *The Time Machine*, *I Am Legend*, *Anthem*, *The Pendulum*, *V for Vendetta*, *1984*, *The Machine Stops*, and *The Pedestrian*.

**PREREQUISITE: Open to Seniors**

## **LITERATURE AND PHILOSOPHY**

*Credits: 0.5*

*Length: Fall semester*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

In this course, we will read, analyze, and discuss texts that put into conversation writing and philosophy. Faced with the technological and social upheavals of the twentieth century, certain writers turned to address fundamental questions such as: What does it mean to be human? What is the relationship between knowledge and experience? Readings may include Plato, Nietzsche, Marx, Walter Benjamin, Franz Kafka, Samuel Beckett, Eula Biss and Teju Cole. The course will require students to form their own interpretations of readings and discuss them in class. Students will be assessed through participation, formal essays, informal responses, and short creative pieces.

**PREREQUISITE: Open to Juniors and Seniors; Juniors may only take this course in addition to their core English course (English 3, Honors English 3, or AP English Language and Composition).**

## **RACE AND IDENTITY IN CONTEMPORARY AMERICAN LITERATURE**

*Credits: 0.5*

*Length: Fall semester*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

In this course we will read, analyze, discuss, and write about contemporary short stories and novels that examine race and identity in the United States. Texts may include works by authors such as Elizabeth Acevedo, Brit Bennett, Louise Erdrich, Jhumpa Lahiri, Min Jin Lee, Viet Thanh Nguyen, Julia Otsuka, Jesmyn Ward and Colson Whitehead. The course will resemble a college-level seminar, with students leading the majority of our discussions based on their own interpretations of the texts. Assessments will include informal journal entries, semi-formal short response essays, formal in-class and take-home essays, projects, and class participation.

**PREREQUISITE: Open to Juniors and Seniors; Juniors may only take this course in addition to their core English course (English 3, Honors English 3, or AP English Language and Composition).**

## **CONTEMPORARY SHORT FICTION**

*Credits: 0.5*

*Length: Spring semester*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

From the ghosts and fantasies that haunted the nineteenth-century short story to the casual cruelties and everyday redemptions in more modern works, the short story represents diverse visions of American identity and experience. The acclaimed author Ian McEwan describes the novella as “the perfect form of modern prose fiction”. McEwan suggests that the novella is something “long enough for a reader to inhabit a world and be kept there, short enough to be read in a sitting or two, and for the whole plot structure to be held in mind upon first encounter.” This course will examine both forms of short fictional prose, especially their innovative narrative techniques, various ways of constructing authorial point of view, mode of plot compression, and its range of styles from realism and romanticism to allegory, and to impressionism. Additionally, we will analyze these works—as literary art forms, as social commentary, and as a reflection of the cultural values. Stories examine such diverse topics as gender, social justice, race in America, war and peace, social protest, and the postmodern. Readings may include works by Edgar Allan Poe, Ray Bradbury, Stephen King, Dorothy Parker, Ernest Hemingway, Charlotte Perkins Gilman, Langston Hughes, Shirley Jackson, Flannery O’Connor, J.D. Salinger, John Cheever, Alice Munro, Ambrose Bierce, and Toni Cade Bambara.

**PREREQUISITE: Open to Seniors**

## **DOCUMENTARY WRITING AND FILM**

*Credits: 0.5*

*Length: Spring semester*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

In this course, we will analyze how a range of writers and filmmakers write and document the places they call home, and beyond. By looking at essays, poems, short stories and films that incorporate documentary material--including Seamus Heaney, Claudia Rankine, Leslie Jamison, Agha Shahid Ali, Ilya Kaminsky, Gillian Wearing and Carolyn Forché--we will consider the intersection of memory, emotion and writing. What happens to the form and content of literary works when they open themselves to everyday life? Through seminar-style discussions and creative writing projects, students will explore the spaces and places they inhabit. Assessments will include informal response papers, short essays, a final creative project, and class participation.

**PREREQUISITE: Open to Juniors and Seniors; Juniors may only take this course in addition to their core English course (English 3, Honors English 3, or AP English Language and Composition).**

## **MONSTERS**

*Credits: 0.5*

*Length: Spring semester*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This course will investigate the way “monsters” have been used in literature to explore societies’ greatest social fears and taboos. Works may include Mary Shelley’s *Frankenstein*, and Robert Louis Stevenson’s *The Strange Case of Dr. Jekyll and Mr. Hyde*, as well as contemporary representations of monsters in film and television.

**PREREQUISITE: Open to Seniors**

## **MYSTERY AND DETECTIVE FICTION**

*Credits: 0.5*

*Length: Spring semester*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This course will investigate some of the best-known literary detectives from around the world and analyze both the character of the detective and the structure of the mystery. Students will read nightly and be involved in several major projects.

**PREREQUISITE: Open to Seniors**

## **HUMANITIES [History]**

### **FOUNDATIONS OF CIVILIZATIONS**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This course covers the development of early peoples in four river valley civilizations: Egypt, India, Mesopotamia, and China, as well as Greece, Rome, the Byzantine Empire and early Islam. A major research paper is written in the second semester.

**PREREQUISITE: None**

### **WORLD HISTORY**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This course is an exploration of World History from ancient times to the modern era, working extensively with primary sources. We'll look at Western history, but also at the civilizations of other regions such as southern and eastern Asia, the Americas, and Africa. We will examine global themes such as contact and conflict between civilizations, changes in religion, art, and culture over time, and the origins and development of the modern world. Come join us for a discussion of our world, where it's been, and where it might be headed!

**PREREQUISITE: Foundations of Civilizations**

### **ADVANCED PLACEMENT WORLD HISTORY**

*Credits: 1*

*Length: Academic year*

*Level: AP*

*Meeting Times: Periods 1-8 Rotation*

AP World History content is similar to the regular World History course described above. Students will study more challenging sources and do more critical analysis of history in preparation for the required AP exam in the spring.

**PREREQUISITE: Foundations of Civilizations, teacher recommendation, and departmental approval**

## **HISTORY OF AMERICAN MEDICINE & SCIENCE (HAMS)**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This course will examine roughly three hundred years of biology, medicine, health, and disease in the United States. Science and medicine are human endeavors that must be understood in the appropriate historical context. We will consider how changing ideas about bacteriology, evolution, and medical care reshaped American society.

Throughout the year we will use both primary and secondary sources to trace medicine's changing relationship to laboratory science. We will investigate the fascinating individuals who engaged in scientific research and provided medical care. By the end of the course, we will have learned how to conduct our own explorations in the history of science and medicine.

**PREREQUISITE: Foundations of Civilizations**

## **HUMAN GEOGRAPHY [Offered in 2023/2024]**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This interdisciplinary course introduces students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students employ spatial concepts and landscape analysis to examine socioeconomic organization and its environmental consequences. They also learn about the methods and tools geographers use in their research and applications. We will cover topics that include: Population and Migration, Political Organization of Space, Industrialization and Economic Development, Cities and Urban Land Use, Geography and Mapmaking, Agriculture, Food Production, and Rural Land Use. If you enjoy learning about timely topics that exist at the intersection of psychology, environmental studies, economics, and history, this may be the perfect course for you.

**PREREQUISITE: Foundations of Civilizations**

## **UNITED STATES HISTORY**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This is a survey course, which begins with the Age of Exploration and concludes with a study of domestic and foreign policy through the late 20th century. The course uses a variety of methods to develop analytical skills, and emphasizes the use of primary and secondary sources. All students develop a research project.

**PREREQUISITE: Open to Juniors**

## **ADVANCED PLACEMENT UNITED STATES HISTORY**

*Credits: 1*

*Length: Academic year*

*Level: AP*

*Meeting Times: Periods 1-8 Rotation*

This course covers the same chronological period as the regular US course but covers the material in greater depth and uses more primary sources in preparation for the required AP exam in the spring.

**PREREQUISITE: World History, AP World History, HAMS, or Human Geography, with teacher recommendation and departmental approval**

## **AMERICAN GOVERNMENT**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This course will introduce many of the core concepts of political science as applied to American government and politics. Students will study the federal system and the institutions of American political life, ranging from Congress, the president and the Supreme Court to the popular press, political interest groups, and citizens/voters. Students will also examine the development of political identity, current political issues, patterns of voting behavior, and upcoming Congressional and/or presidential elections.

**PREREQUISITE: US History or AP US History**

## **ADVANCED PLACEMENT AMERICAN GOVERNMENT**

*Credits: 1*

*Length: Academic year*

*Level: AP*

*Meeting Times: Periods 1-8 Rotation*

This course is similar to the American Government course but emphasizes primary sources and the development of necessary skills to prepare for the required AP exam in the spring.

**PREREQUISITE: US History or AP US History, teacher recommendation, and departmental approval**

## **ECON & BLOOMBERG FINANCE LAB**

*Credits: 1*

*Length: Academic year*

*Level: Honors*

*Meeting Times: Periods 1-8 Rotation*

This course will introduce students to macro and micro economics, business basics, finance, the entrepreneurial mindset, and leadership. Students will learn core economic concepts such as supply and demand, unemployment, inflation, fiscal policy, monetary policy, competition, monopoly, the labor market, public choice theory, utility, Keynesian economics, and classical economics. In addition, the course uses the Wharton Schools' interactive academic community at the University of Pennsylvania using alternate reality simulations to get real world experience running a startup, exploring business practices and finding ways to transform the global economy. The course culminates with students using the RPS Bloomberg Lab to obtain a Bloomberg Market Concepts (BMC) certificate. The BMC certificate allows students to train on real Bloomberg Terminals and provide them with an interactive introduction to financial markets.

**PREREQUISITE: Open to Juniors and Seniors. Juniors may only take this course in addition to their core History course (US History or AP US History).**

## **ETHICS**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This course is an introduction to the central topics in classic and contemporary ethics. Students will begin with a focus on metaethics by examining the meaning of moral claims and whether there is any sense in which moral principles are objectively valid. The second major area of focus will be on normative ethics by exploring what makes our lives worth living, what makes our actions right or wrong, and what we owe to others, including what role fairness and equity play. The final major focus of the course will be on moral character by investigating what virtue is and its importance, as well as personal responsibility and accountability. Students will develop their ability to read, explicate, synthesize, and evaluate philosophical views while exploring their own ethical positions from an analytical and critical perspective. Promoting respectful, supportive, and in-depth discussions of ethics through authentic case studies will be a course emphasis, with the goal of enabling students to practice and build the virtues central to democratic citizenship through discussions, essays and projects, thus preparing them to navigate challenging moral issues in a rigorous, systematic, and open-minded way.

**PREREQUISITE: Open to Juniors and Seniors; Juniors may only take this course in addition to their core History course (US History or AP US History).**

## **MODERN EUROPEAN HISTORY**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This course seeks to understand the history of Europe through critical examination of important social, political, cultural, and economic developments. Topics of study include the Renaissance, Reformation, French Revolution, Industrial Revolution, the rise of nationalism, the world wars, and the challenges Europe faces in the 21st century. The course investigates why and how new institutions, new ideas and new activities flourish or perish.

**PREREQUISITE: Open to Juniors and Seniors; Juniors may only take this course in addition to their core History course (US History or AP US History).**

## **ADVANCED PLACEMENT MODERN EUROPEAN HISTORY**

*Credits: 1*

*Length: Academic year*

*Level: AP*

*Meeting Times: Periods 1-8 Rotation*

The AP Modern European History course emphasizes in-depth treatment of the regular course content and uses a great deal of primary source material to prepare for the required AP exam in the spring.

**PREREQUISITE: US History or AP US History, teacher recommendation, and departmental approval**

## **ECONOMICS**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This course is an introduction to such core economic concepts as unemployment, inflation, output, fiscal policy, monetary policy, elasticity, competition, monopoly, the labor market, public choice theory, utility, Keynesian economics, classical economics and oligopoly. Through the study of theory and economic models students will gain a greater appreciation for the way economists think, and will gain an insight into the public policy process. We will examine history and current events through the lens of the economic models and theories that we learn in class.

**PREREQUISITE: US History or AP US History**



### **ADVANCED PLACEMENT ECONOMICS**

*Credits: 1 (AP Macroeconomics, Fall, 0.5 credits / AP Microeconomics, Spring, 0.5 credits)*

*Length: Academic year*

*Level: AP*

*Meeting Times: Periods 1-8 Rotation*

This course is similar to the regular Economics course listed above, but will prepare students for the AP Exams in Economics, both Macro and Micro. Students will be exposed to more models and theories than the students in regular economics, and the pace of the course is significantly faster. If approved, students will register for AP Macroeconomics for the fall semester and AP Microeconomics for the spring semester -- both courses are required to enroll.

**PREREQUISITE: US History or AP US History, teacher recommendation, and departmental approval**

### **THE HISTORY OF THE UNITED STATES THROUGH SPORTS**

*Credits: 1*

*Length: Academic Year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This course will explore the history of the United States through famous sports events or personages. Topics examined will be the Cold War, Women's Rights Movement, Civil Rights Movement, Anti-Semitism, and Nationalism among others. Students will read newspaper articles, scholarly works and will view documentaries and movies to examine these subjects. This course will conclude with a research project carried by each student on a topic of his or her own interest within this subject matter.

**PREREQUISITE: Open to Juniors and Seniors; Juniors may only take this course in addition to their core History course (US History or AP US History).**

### **THE POLITICAL LEADERSHIP OF CHURCHILL, LINCOLN, and REAGAN**

*Credits: 0.5*

*Length: Fall semester*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This course purports to examine the role of leadership in political history, and we will try to isolate the characteristics that made people successful in the face of incredibly traumatic historical events like Winston Churchill, Abraham Lincoln and Ronald Reagan so successful. Students will learn about how British Parliament works, and the role that Churchill's leadership played in fighting against Hitler's Nazi Empire. Additionally, we will look at the state of the United States at the time of Lincoln's election as President, and we will examine how he successfully navigated the country through the Civil War. Finally, we will examine the way that Ronald Reagan battled the Soviet Union in the Cold War, and the prominent role he played in winning the Cold War. What made these leaders similar, and what were some different techniques that each used? How did each of these leaders use the English language to gain support for their respective visions? Texts for this course will include speeches by Churchill, Lincoln, and Reagan, as well as secondary sources such as "The Churchill Factor: How One Man Made History" by Boris Johnson, "Lincoln on Leadership" by Donald T. Phillips, and "Greatness: Reagan, Churchill, and the Making of Extraordinary Leaders" by Steven Hayward.

**PREREQUISITE: US History or AP US History**

## **THE AMERICAN CIVIL WAR**

*Credits: 0.5*

*Length: Spring semester*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

The American Civil War will be a half-year elective course that uses primary sources, scholarly works and films to examine why this important event occurred, and how it continues to impact us to this day. There is a chance that this course will include trips to the battlefields at Antietam and Gettysburg, and a visit to Harper's Ferry. The course will conclude with a research project carried out by each student on a topic of his or her own interest. Students will read speeches by Abraham Lincoln, famous abolitionists and scholarly works by Professor Jim McPherson and Stephen Sears.

**PREREQUISITE: Open to Juniors and Seniors; Juniors may only take this course in addition to their core History course (US History or AP US History).**

## **ADVANCED PLACEMENT PSYCHOLOGY**

*Credits: 1*

*Length: Academic year*

*Level: AP*

*Meeting Times: Periods 1-8 Rotation*

AP Psychology is the study of human behavior and mental processes. Students in this course explore how people learn, solve problems, and perceive the world. They gain new perspectives on how humans form self-images, work with others, and fall in love. Additionally, they develop an understanding of the anatomical and chemical phenomena that govern these processes.

AP Psychology prepares students for the National AP exam in May. By the end of the year, students will cover the same material as a college Introduction to Psychology course.

**PREREQUISITE: Open to Seniors with departmental approval. Juniors may submit a request form for possible placement after Senior course requests have been satisfied. Juniors may only take this course in addition to their core History course (US History or AP US History).**

## **MATHEMATICS**

### **ALGEBRA 1**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This course consists of the study of the structure and essentials of algebra. The emphasis is on teaching a variety of skills as an aid to problem solving. Students will study both linear and quadratic equations as well as topics such as exponents, rational expressions, and graphing.

**PREREQUISITE: None**

### **GEOMETRY**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This course offers an introduction to the fundamental concepts of plane geometry. Students use logical and deductive reasoning skills throughout the course to provide informal justifications and arguments for the topics discussed. Applications of how geometry relates to the real world is emphasized. There is an expectation of algebraic proficiency, and algebra is used extensively.

**PREREQUISITE: Algebra 1**

### **HONORS GEOMETRY**

*Credits: 1*

*Length: Academic year*

*Level: Honors*

*Meeting Times: Periods 1-8 Rotation*

This course is intended for students with a strong mathematical ability and the desire to study the structure and application of mathematics. Departmental approval and a current teacher recommendation are needed for a student to be eligible. A placement test may also be necessary. Superior algebraic skills are assumed and are necessary for applications of the geometric concepts. Using classical construction techniques, students will discover and develop the theorems and properties needed as justifications for two-column proofs. The course develops ideas from Euclidean plane and solid geometry and then integrates these ideas with those from analytic geometry.

**PREREQUISITE: Algebra 1 and Departmental Approval**

## **ALGEBRA 2**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This course provides the essential concepts and skills of algebra that are needed for the further study of mathematics. The course presents a comprehensive investigation of linear, quadratic, and radical functions. The students will utilize graphical and numerical methods, as well as the graphing calculator to examine each function. Skills in multiple algebraic techniques and the ability to present a thorough and well-organized solution are emphasized in each unit.

**PREREQUISITE: Geometry**

## **HONORS ALGEBRA 2**

*Credits: 1*

*Length: Academic year*

*Level: Honors*

*Meeting Times: Periods 1-8 Rotation*

Honors Algebra 2 is a rigorous study of algebra intended for students with a strong mathematical ability. Students will gain a strong foundation in algebraic skills while exploring linear, quadratic, polynomial, exponential, and logarithmic functions. Trigonometric ratios, radians, and the unit circle are thoroughly investigated. Proficiency in multiple algebraic techniques, the ability to present a thorough and well-organized solution, and the skill to connect concepts in order to solve multi-step problems are emphasized in each unit.

**PREREQUISITE: Geometry or Honors Geometry and Departmental Approval**

## **HONORS ALGEBRA 2 WITH APPLICATIONS**

*Credits: 1*

*Length: Academic year*

*Level: Honors*

*Meeting Times: Periods 1-8 Rotation*

Honors Algebra 2 with Applications is intended for students with a strong mathematical ability and desire to study the structure and applications of mathematics. The class includes a more sophisticated study of all the topics from Honors Algebra 2. Mathematical modeling and real world applications will also be studied throughout the course and used to reinforce theory and concepts. All of the topics are covered in depth with a larger emphasis placed on developing skills in making connections more independently.

**PREREQUISITE: Honors Geometry and Departmental Approval**

## **PRECALCULUS**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This course is designed to continue the study of functions from Algebra II. Elementary functions are revisited in greater depth, and an emphasis is placed on properties and transformations of graphs. The students will cover the basic functions; identity, quadratic, cubic, rational, square root, exponential, logarithmic, trigonometric, absolute value, and piecewise. Each function is studied from both an analytical approach and also a graphical approach. Solving real-world problems gives students a context for the uses of each function.

**PREREQUISITE: Algebra 2**

## **HONORS PRECALCULUS AB**

*Credits: 1*

*Length: Academic year*

*Level: Honors*

*Meeting Times: Periods 1-8 Rotation*

This fast-paced course is designed to prepare students for a college level calculus class. The course builds on the foundation laid in Honors Algebra II related to the various classes of functions such as linear, quadratic exponential functions. In addition, the course will give a thorough treatment of trigonometry and circular functions, as well as such diverse topics as complex numbers, and sequences and series.

**PREREQUISITE: Algebra 2 or Honors Algebra 2 and Departmental Approval**

## **HONORS PRECALCULUS BC**

*Credits: 1*

*Length: Academic year*

*Level: Honors*

*Meeting Times: Periods 1-8 Rotation*

This course provides further and more intensive study of the elementary functions of one variable and plane trigonometry, including extensive investigation into the algebra, properties, graphs, and applications of these functions. This fast-paced course presents and analyzes the material in a more theoretical approach through graphical, numerical, analytical, and verbal methods and the appropriate use of technology.

**PREREQUISITE: Honors Algebra 2 or Honors Algebra 2 with Applications and Departmental Approval**

## **CALCULUS**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This fundamental course stresses the application of derivatives and integrals rather than rigorous theoretical concepts. The course covers concepts including limits, functions, slope, differentiation, anti-derivatives, indefinite and definite integrals, fundamental theorem of calculus, and techniques of integration. These concepts, along with algebraic, numerical, and calculator-based methods, will be used to solve equations, and plot and analyze graphs. Emphasis will be placed on gaining mastery of the calculus concepts and use of the graphing calculator. While this course gives a solid foundation for the study of calculus in college, it is not intended as preparation for the advanced placement test.

**PREREQUISITE: Precalculus**

## **HONORS CALCULUS**

*Credits: 1*

*Length: Academic year*

*Level: Honors*

*Meeting Times: Periods 1-8 Rotation*

This fast paced, fundamental course will stress a multi-representational approach to derivatives and integrals with concepts, results, and problems expressed graphically, numerically, analytically, and verbally. A strong foundation of algebra skills and understanding of trigonometry is essential. The course covers concepts including limits, functions, slope, differentiation, anti-derivatives, indefinite and definite integrals, fundamental theorem of calculus, and techniques of integration. These concepts, along with algebraic, numerical, and calculator-based methods, will be used to solve equations, and plot and analyze graphs. Emphasis will be placed on clear communication of methods, reasoning, justifications, and conclusions. Assignments and exams will be more in depth and cover more topics than a regular calculus course. This course will give students a solid foundation for the study of calculus in college. It is not intended as preparation for the AP Calculus exam.

**PREREQUISITE: Precalculus or Honors Precalculus AB or BC and Departmental Approval**

## **ADVANCED PLACEMENT CALCULUS (AB or BC)**

*Credits: 1*

*Length: Academic year*

*Level: AP*

*Meeting Times: Periods 1-8 Rotation*

AP Calculus is a college-level course in differential and integral calculus for students who intend to achieve advanced standing in college calculus. These courses follow closely, but are not limited to, the guidelines of the Advanced Placement Calculus syllabi set by the College Board.

**PREREQUISITE:**

**AB Calculus - Precalculus or Honors Precalculus AB or BC and Departmental Approval**

**BC Calculus - Honors Precalculus AB or BC and Departmental Approval**

## **STATISTICS AND PROBABILITY WITH APPLICATIONS**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This course focuses on an introduction to the four core themes in statistics: exploratory analysis, probability, experimental design, and statistical inference. This course will prepare students for college-level statistics, which is required for many major fields of study. This course will provide a solid base in statistical thinking for anyone who wants to make intelligent choices based on the vast amount of data in our world and is particularly valuable to students who plan to pursue degrees in advertising, business, biology, economics, health sciences, mathematics, psychology, the social sciences, and beyond. This course is taught as a research and problem-solving based course in which students actively construct their own understanding of the concepts and techniques of statistics. While our course textbook provides the framework, emphasis will be placed on real-world supplementary activities and investigations that incorporate newspapers, journals, videos, the internet, and extensive use of our *Bloomberg Terminal Lab*. The *Bloomberg Terminal Lab* provides students with a rare opportunity to train on and access the same information used by leading decision makers, asset managers, and policy architects in business, finance, and government. An additional benefit of completing this course is that students will complete a *Bloomberg Market Concepts (BMC) Certification* that provides an interactive introduction to the financial markets and over 70 Bloomberg Terminal functions bestowing our students with an experiential and competitive advantage for college admissions as well as research, internships, and careers.

**PREREQUISITE: Three years of Upper School mathematics**

## **ADVANCED PLACEMENT STATISTICS**

*Credits: 1*

*Length: Academic year*

*Level: AP*

*Meeting Times: Periods 1-8 Rotation*

This is a college-level course in descriptive and inferential statistics. In the first semester, the course focuses on producing and analyzing data, relationships among variables, probability laws, simulation, and probability distributions. In the second semester, the course focuses on formal methods for drawing conclusions about one or more populations using confidence intervals and significance tests. Emphasis is placed on understanding the process of statistical inference, which includes the foundational reasoning for statistical inference and determining the value and credibility of the conclusions made from the data. The course will follow the College Board's curriculum and will be eligible to take the AP test in the spring.

**PREREQUISITE: Precalculus and Departmental Approval**

### **ADVANCED TOPICS IN MATHEMATICS - ABSTRACT**

*Credits: 1*

*Length: Academic year*

*Level: Post-AP*

*Meeting Times: Periods 1-8 Rotation*

Advanced Topics in Mathematics-Abstract is designed for students who have completed an AP Calculus course and are interested in continuing their math education in college. The course introduces students to various topics in advanced mathematics, with an emphasis on abstract mathematics. Students will also learn how to create documents using the mathematical typesetting language LaTeX. While every year's curriculum may be different, topics that are covered typically include set theory, proof writing techniques, and fundamental group theory.

**PREREQUISITE: Successful completion of AP Calculus, an Calculus AB AP test score of "5" or Calculus BC AP test score of "4", and Departmental Approval**

### **ADVANCED TOPICS IN MATHEMATICS - APPLIED [Offered in 2023/2024]**

*Credits: 1*

*Length: Academic year*

*Level: Post-AP*

*Meeting Times: Periods 1-8 Rotation*

Advanced Topics in Mathematics-Applied is designed for students who have completed an AP Calculus course and are interested in continuing their math education in college. The course introduces students to various topics in advanced mathematics, with an emphasis on applied mathematics. Students will also learn how to create documents using the mathematical typesetting language LaTeX. While each year's curriculum may be different, topics typically seen in a standard multivariable calculus or linear algebra course are usually covered.

**PREREQUISITE: Successful completion of AP Calculus, an Calculus AB AP test score of "5" or Calculus BC AP test score of "4", and Departmental Approval**



## **SCIENCE**

### **ENVIRONMENTAL SCIENCE**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This course will survey a variety of contemporary environmental topics such as sustainability, ecology, evolution, nutrient cycling, climate, and climate change. It will examine problems and search for solutions at the local, national, and international levels. Students will develop skills that will aid them in future science courses, such as graphing, experimental design, and critical thinking. (Laboratory course)

**PREREQUISITE: None**

### **CHEMISTRY**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This course is designed to prepare students to take Chemistry in college by providing them with strong foundations. The course covers topics such as the structure of the atom, the formation of compounds and their reactions, stoichiometry, the chemistry of solutions and gases, the kinetic theory and heat & temperature. This class places more emphasis on the connections between theoretical knowledge and the application of Chemistry to everyday life. Hands-on learning is provided in the laboratory where students will generally work individually or with a partner in qualitative Chemistry labs. (Laboratory course)

**PREREQUISITE: Completion of Algebra 1 (minimum grade B), performing satisfactorily on a placement test, and departmental approval**

### **HONORS CHEMISTRY**

*Credits: 1*

*Length: Academic year*

*Level: Honors*

*Meeting Times: Periods 1-8 Rotation*

This course prepares students to take Chemistry in college. It uses a traditional approach, which requires a solid base in mathematics. Topics include atomic theory, electronic structure, classification of compounds and reactions, stoichiometry, solution and gas chemistry, kinetic theory and equilibrium system. There is a strong emphasis on quantitative problem solving and reaction prediction. Students gain hands-on experience as they complete activities and labs for each topic. (Laboratory course)

**PREREQUISITE: Grades 10-12 -- Completion of Geometry (minimum grade B) and departmental approval. Grade 9 -- Completion of Math (Algebra 1 or higher) with a minimum grade of A, Science courses with a minimum grade of A, performing satisfactorily on a placement test, and departmental approval.**

## **BIOLOGY**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

Biology prepares students for college level Biology by selecting a limited number of topics in Biology in order to provide an opportunity to explore these topics in depth. This course takes a very structured approach to help students make connections, develop analytical skills, and compare a variety of topics to build models to understand the world of life. Opportunities for hands-on laboratory work will support classroom studies. (Laboratory course)

**PREREQUISITE: None**

## **HONORS BIOLOGY**

*Credits: 1*

*Length: Academic year*

*Level: Honors*

*Meeting Times: Periods 1-8 Rotation*

Honors Biology prepares students for college level biology by examining a broad range of topics in depth. The course builds the basic foundation of biology knowledge while emphasizing higher order skills such as comparative analysis, evaluation of evidence and applying information to novel situations. Students are expected to be able to learn independently from reading the textbook and other sources. The course is designed to help improve their technical writing and study skills. Laboratory exercises include both traditional and open-ended inquiry labs. (Laboratory course)

**PREREQUISITE: Completion of Environmental Science (minimum grade A) or Chemistry (minimum grade A-) or Honors Chemistry (minimum grade B+), and departmental approval**

## **ADVANCED PLACEMENT BIOLOGY (2 periods)**

*Credits: 1*

*Length: Academic year*

*Level: AP*

*Meeting Times: Periods 1-8 Rotation*

AP Biology is a fast-paced demanding college level course using a college text. The curriculum is organized around four Big Ideas and emphasizes understanding, analysis and application over traditional memorization. Students must have strong graphing and mathematical skills, be highly motivated and capable of learning independently from reading the textbook and other sources. Students will have to learn some required topics outside of class. Sophomores may take the course only if they have excellent records from their previous science course, including demonstrated responsibility and preparation in the lab portion (see prerequisites below). Juniors and seniors may take this course if they had strong grades (B or better) in their prior Biology course. Besides success in a previous science course, students must perform satisfactorily on a placement test in order to be considered for AP Biology. (Laboratory course)

**PREREQUISITE: Completion of Geometry (minimum grade B), High School level Chemistry (minimum grade A) or High School level Honors Chemistry (minimum grade A-), satisfactory performance on a placement test, and departmental approval**

### **ADVANCED PLACEMENT CHEMISTRY (2 periods)**

*Credits: 1*

*Length: Academic year*

*Level: AP*

*Meeting Times: Periods 1-8 Rotation*

AP Chemistry is a demanding college level Chemistry course that uses a college text. The course covers a variety of aspects of general chemistry, including descriptive chemistry, chemical reactions, stoichiometry, atomic and molecular structure, thermodynamics, kinetics, equilibria, electrochemistry, and nuclear chemistry. The work is extremely rigorous and moves at a rapid pace. Most of the work is quantitative and should only be taken by those juniors or seniors who have strong quantitative skills or who have already taken chemistry. (Laboratory course)

**PREREQUISITE: Completion of Honors Algebra 2 (minimum grade B) or Algebra 2 (minimum grade A), completion of one year of high school chemistry and departmental approval**

### **STUDENT RESEARCH - MOLECULAR BIOLOGY**

*Credits: 1*

*Length: Academic year*

*Level: Honors*

*Meeting Times: Periods 1-8 Rotation*

This is a research-based course where students will meet in the lab, learning basic laboratory techniques in molecular biology. Students will learn to analyze and interpret data and use internet-based programs to analyze DNA sequences. Students will each keep a journal and complete a final poster project for presentation to scientists at Waksman Institute at Rutgers University and GE Healthcare at the end of the year. (Laboratory course). Laboratory work on campus is an essential part of this course.

**PREREQUISITE: Satisfactory completion of Honors Biology or AP Biology. Students must fill out an interest form (current science teacher will not pre-approve students for the research course).**

### **ADVANCED STUDENT RESEARCH - MOLECULAR BIOLOGY**

*Credits: 1*

*Length: Academic year*

*Level: Honors*

*Meeting Times: Periods 1-8 Rotation*

This course is open to students who have completed the first year of Student Research—Molecular Biology. Students will work in the laboratory doing advanced studies of gene sequences identified in their work in Student Research. Their work can include sub-cloning techniques, transformation, protein purification and protein modeling as well as genetic/ environmental studies of their model organism. (Laboratory course)

**PREREQUISITE: Completion of Student Research (Molecular Biology) and departmental approval**

## **ADVANCED PLACEMENT ENVIRONMENTAL SCIENCE**

*Credits: 1*

*Length: Academic year*

*Level: AP*

*Meeting Times: Periods 1-8 Rotation*

AP Environmental Science is a fast-paced and demanding college level course, covering foundations of ecology and surveying a variety of contemporary environmental issues. The curriculum is organized around four Big Ideas and emphasizes both content understanding and application using science practices. It examines problems at the local, national, and international level and searches for solutions relating to science, politics and economics. Students will have to learn some required topics outside of class. (Laboratory course)

**PREREQUISITE: Successful completion of Chemistry and Biology, and departmental approval**

## **PHYSICS**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This is an introductory, algebra-based course, designed for students to appreciate and understand the fundamental laws of physics that govern our world. Topics will include: motion of objects, forces, Newton's Laws, conservation of momentum and energy, fluid mechanics and electricity and magnetism. The best way to ensure learning that lasts is through a sound understanding of concepts and practical application of concrete examples that students can relate to and appreciate. Class lectures are supplemented with ample demonstrations. There is typically one lab per chapter, designed to reinforce material we discussed in class. Ample homework problems will be assigned online. The student is expected to complete homework nightly in order to understand the material. With a sound foundation in these topics, students should feel comfortable taking an introductory physics course in college. This course is different from Honor Physics in that we do not cover the material in as much depth. (Laboratory course)

**PREREQUISITE: Completion of Algebra 2 (minimum grade B) and Geometry (minimum grade B) and departmental approval**

## **HONORS PHYSICS**

*Credits: 1*

*Length: Academic year*

*Level: Honors*

*Meeting Times: Period 1-8 Rotation*

This is an enhanced, algebra-based course, designed mostly for science students to appreciate and recognize the fundamental laws of physics that govern our world. We use one of the most popular college-level physics textbooks in this course. We will cover topics in: one and two dimensional motion, acceleration, forces, Newton's Laws of Motion, work and energy, momentum and collisions, rotational motion and moment of inertia, gravity and circular motion, and electricity and magnetism. The best way to ensure learning that lasts is through a sound understanding of concepts and practical application of concrete examples that students can relate to and appreciate. Lectures are supplemented with classroom demonstrations. Ample homework problems will be assigned on line. The student is expected to complete homework nightly in order to understand the material. There is typically one lab per chapter, designed to reinforce the subject matter. With a sound foundation in these topics, students should feel comfortable taking more advanced physics courses in college. This course is different from Physics in that we move more quickly and cover the subject matter in much more depth. Exams are much more rigorous in this course. This is a challenging course requiring lots of effort on the student's part. (Laboratory course)

**PREREQUISITE: Completion of Algebra 2 (minimum grade B+) and Geometry (minimum grade B+), successful completion of at least one prior high school science course (minimum grade B+) and departmental approval.**

## **ADVANCED PLACEMENT PHYSICS C: MECHANICS**

*Credits: 1*

*Length: Academic year*

*Level: AP*

*Meeting Times: Periods 1-8 Rotation*

This is a very challenging, calculus-based course, which takes a rigorous approach to understanding many fundamental topics important in the world we live in. All the areas covered in this course are detailed on the College Board website. We use one of the most popular college-level textbooks. The course is conceptual in nature, where memorization of equations is discouraged and is to be replaced by fundamental understanding. With this approach, a student's scientific reasoning skills, problem solving skills and data analysis skills are developed. A principal goal for the course is to have students well prepared for the AP Mechanics C exam in May. This course will serve as a foundation for students interested in college majors involving the sciences and engineering. Classroom demonstrations and extensive labs will help improve a student's understanding of the material. Students will be expected to use Microsoft Excel or Google Sheets to graph and analyze lab results. We do simple linear regression and model building of lab results. (Laboratory course)

**PREREQUISITE: Completion of or concurrently taking AP Calculus (BC or AB) with a minimum grade of B, and departmental approval**

## **ADVANCED PLACEMENT PHYSICS C: ELECTRICITY & MAGNETISM**

*Credits: 1*

*Length: Academic year*

*Level: AP*

*Meeting Times: Periods 1-8 Rotation*

AP Physics C Electricity and Magnetism (E&M) is a year long, calculus-based, college-level physics course, especially appropriate for students planning to specialize or major in physical science or engineering. All the areas covered in this course are detailed on the College Board website. We use one of the most popular college-level textbooks. The course builds upon the AP Physics C Mechanics course and employs introductory differential and integral calculus throughout the school year. It is recommended that students take AP Physics C Mechanics first. However, if a student has not previously taken AP Physics C Mechanics, then they will need strong approval from their previous science and math teachers. Approval from the science department chair-people is also required. It is envisioned that only RPS seniors would be taking the course, as they would have already studied the appropriate prerequisite material. (Laboratory course)

**PREREQUISITE: Completion of AP Calculus and AP Physics C: Mechanics or showing mastery of AP Physics C Mechanics by performing satisfactorily on a placement test and departmental approval**

### ***TOPICS IN SCIENCE- Full Year Courses***

This course is open to juniors and seniors who have completed their basic two-year science graduation requirement. See specific course description for Prerequisites.

## **ANATOMY & PHYSIOLOGY (HAP)**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

Human Anatomy and Physiology is a course that will allow students to gain an understanding of the relationships between the structures and functions of the human body. This course will involve projects, laboratory activities, models, diagrams, discussions, and case studies. Memorization of anatomical terms will be required for understanding and application of the material. Dissection of a fetal pig, as well as other appropriate organs, will enhance the course work. It is recommended that only students serious and passionate about the subject matter, committed to hands-on work, and with an interest in the medical field take this course.

**PREREQUISITE: Successful completion of Biology (B) and Chemistry (B-) and departmental approval**

### **TOPICS IN SCIENCE- Semester Courses**

These are open to juniors and seniors who have completed their basic two-year science graduation requirement. Course(s) in bold will be offered in the upcoming academic year with descriptions below. See specific course description for Prerequisites. The choice(s) are:

#### **TOPICS IN ASTRONOMY**

*Credits: 0.5*

*Length: Fall semester*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This course will examine various topics dealing with our Universe, such as: galaxies, the solar system, stars, Black Holes, planets, moons, and space exploration. We will explore major historical events that led to discoveries in the Universe. The students will be required to research topics and to present their information to the class.

**PREREQUISITE: None**

#### **TOPICS IN METEOROLOGY**

*Credits: 0.5*

*Length: Spring semester*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

Provides a basic foundation in the concepts of Meteorology. This is done by understanding the atmosphere, pressure systems, fronts and major storms, through lecture and class discussions.

**PREREQUISITE: None**

#### **TOPICS IN FORENSIC SCIENCE**

*Credits: 0.5*

*Length: Spring semester*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This class provides an introduction to the diverse fields known collectively as "Forensic Science". It will focus on the collection of evidence, the techniques used to analyze evidence and the interpretation of evidence. Some discussion of how evidence is presented and used in court will be included. The students will spend time in lab applying various Forensics techniques to cases. Readings on landmark cases will be from handouts and web sites provided.

**PREREQUISITE: Successful completion of a High School Biology course and a High School Chemistry course.**

***Science Topic Courses***

**Topics in Astronomy (fall semester)**

**Topics in Meteorology (spring semester)**

**Topics in Forensic Science (spring semester)**

Biotechnology & Conservation Biology (not offered in 2022/2023)

Science and Our Food Supply: Environmental Impacts (not offered in 2022/2023)

Biotechnology & Human Health (not offered in 2022/2023)

Science and Our Food Supply: Modern Applications (not offered in 2022/2023)

An Introduction to Pharmaceutical Science (not offered in 2022/2023)

Topics in Organic Chemistry (not offered in 2022/2023)

Topics in Immunology (not offered in 2022/2023)

Topics in Microbiology (not offered in 2022/2023)



## **WORLD LANGUAGES**

### **LEVEL 1 FRENCH AND SPANISH**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

In French and Spanish, students will begin to develop communicative competence in the target language. They will participate in listening, reading, speaking and writing activities that engage them in the three modes of communication: interpretive, interpersonal, and presentational. Additionally, students will gain exposure to different facets of cultural life throughout the world of the target language through culturally authentic materials such as advertisements, music, newspapers, television broadcasts, and websites from various countries. Students will demonstrate what they can do with the target language through active participation in performance-based tasks like dialogues, emails, role-plays, and discussion that simulate real-life situations.

**PREREQUISITE: None**

### **LEVEL 2 FRENCH AND SPANISH**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

In French and Spanish students expand upon and strengthen the basic language skills learned in level 1. Through themed chapters, they continue to acquire new vocabulary and grammatical structures in the context of real-life situations, and they continue to develop their skills in the interpretive, interpersonal and presentational modes of communications. With more emphasis given to self-expression, students continue to negotiate meaning while developing confidence and linguistic competence through performance-based tasks. Multimedia resources provide access to culturally authentic materials that promote understanding of the world of the target language.

**PREREQUISITE: Successful completion of the Level 1 class**

### **HONORS LEVEL 2 FRENCH AND SPANISH**

*Credits: 1*

*Length: Academic year*

*Level: Honors*

*Meeting Times: Periods 1-8 Rotation*

The honors level courses are available for the most able language student. The courses follow the same curriculum as the regular level but at a faster pace, with greater depth and greater emphasis on more rigorous student performance. Students in the honors level should be self-motivated, diligent, and willing to take risks with the target language as they develop their skills in the three modes of communication.

**PREREQUISITE: A- or above in a Level 1 class and recommendation from the Department and the previous year's teacher**

### **FRENCH 3**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

French 3 builds on the knowledge and skills acquired in the previous two years of study with a move from memorized phrases and expressions to the use of more spontaneous communication in both written and oral French. Themed units provide a meaningful context for daily lessons that provide relevant vocabulary and targeted grammatical structures, allowing students to examine different facets of cultural life throughout the French-speaking world and to engage in the three modes of communication. Students will demonstrate what they can do with the target language through active participation in performance-based tasks like dialogues, emails, role-plays, class discussion, and skits. Such open-ended scenarios simulate real-life situations, while enabling students to negotiate meaning and further develop their communicative competence in French.

**PREREQUISITE: Successful completion of the Level 2 class**

### **HONORS FRENCH 3**

*Credits: 1*

*Length: Academic year*

*Level: Honors*

*Meeting Times: Periods 1-8 Rotation*

This course, for the more adept language learner, emphasizes more spontaneous communication in French and progresses at an accelerated pace. Themed units continue to provide a meaningful context for daily lessons, as students learn targeted grammatical structures and relevant vocabulary. However, students are encouraged to put a more personal touch on their expression, increasing their ability to communicate by using more complex sentence structure and expanded vocabulary. The focus of this course is for students to be increasingly creative in their use of written and spoken French. They will be challenged to determine the main idea of a listening or reading passage and to make inferences, despite the presence of some unfamiliar vocabulary words. They will hone their interpretive, interpersonal and presentational skills over the course of the year through the study of authentic resources including (literary excerpts, articles, magazines, film, websites and music) and through compositions, creative projects, and open-ended discussions.

**PREREQUISITE: A- or above in a Level 2 Regular class, or B+ or above in an Honors class and recommendation from the Department and the previous year's teacher**

### **FRENCH CONVERSATION AND CULTURE (C&C)**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

In French C&C, students will strengthen their communicative competence in the target language, with an emphasis on conversational ease. They engage in three distinct modes of communication: interpretive, interpersonal, and presentational. In the process, they participate in listening, reading, speaking, and writing activities. By examining different facets of cultural life throughout the French-speaking world, students gain exposure to a selection of culturally authentic materials, such as advertisements, magazines, music, newspapers, podcasts, television broadcasts, and websites from various Francophone countries. Finally, students will demonstrate what they can do with the target language through active participation in performance-based tasks (discussions, dialogues, emails, letters, role-plays, skits) that simulate real-life situations, while enabling students to negotiate meaning and further develop their communicative competence in French.

**PREREQUISITE: Successful completion of the Level 3 class**

### **HONORS FRENCH LANGUAGE AND LITERATURE 1 (L&L 1)**

*Credits: 1*

*Length: Academic year*

*Level: Honors*

*Meeting Times: Periods 1-8 Rotation*

This course emphasizes the study of literature as the springboard to class discussions. Grammar will be reviewed and presented in the context of the texts read in class. It is expected that students are independent learners and already have a fairly solid grammar foundation from previous years of study. By reading works of literature and by discussing content, plot, characters and themes, students will further their knowledge of the intricacies of the French language and culture, be exposed to various French and Francophone authors and improve their critical thinking skills.

**PREREQUISITE: A- or above in a regular class, or B+ or above in an Honors class and recommendation from the Department and the previous year's teacher**

## **HONORS FRENCH LANGUAGE AND LITERATURE 2 (L&L 2)**

*Credits: 1*

*Length: Academic year*

*Level: Honors*

*Meeting Times: Periods 1-8 Rotation*

This course continues to use literature and other cultural products as the springboard to class discussions. Grammar will be reviewed and presented in the context of texts read. By using all three modes of communication to investigate French-language literature, philosophy and historical documents, students will expand their knowledge of the Francophone world in a global context. Students will also be introduced to the six major themes used in Advanced Placement French. They will use them as a framework to better interrogate the authentic cultural products used in class. It is expected that students are independent learners and already have a fairly solid grammar foundation from previous years of study.

**PREREQUISITE: A- or above in a regular fourth-year French class, or B+ or above in a fourth year Honors French class and recommendation from the Department and the previous year's teacher**

## **ADVANCED PLACEMENT FRENCH LANGUAGE AND CULTURE**

*Credits: 1*

*Length: Academic year*

*Level: AP*

*Meeting Times: Periods 1-8 Rotation*

AP French Language and Culture is a college-level course designed to refine students' interpretive, interpersonal and presentational skills through a variety of activities and assessments. The primary learning objective is to expand students' knowledge of the Francophone world, in a global context. The six themes outlined by the AP College Board (Families & Communities, Personal & Public Identities, Global Challenges, Beauty & Aesthetics and Science & Technology) will provide the framework and real-life setting for the course. Students will practice and apply the three modes of communication in order to process, analyze, compare/contrast, and develop a more profound understanding of course material. Emphasis is placed on functional use of the language in real-life situations and the study of authentic resources.

**PREREQUISITE: Successful completion of Honors French Language & Literature and recommendation from the Department and the previous year's teacher with A- or above in a regular class, or B+ or above in an Honors class**

### **SPANISH 3**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

In Spanish 3, students will review and expand on the vocabulary and structures learned in Spanish 2. Students move from memorized phrases and expressions to the use of more spontaneous language in written and oral Spanish. Working with the themed units, students will continue to communicate and negotiate meaning through listening, speaking, reading and writing while learning about the cultures of the Spanish-speaking world. Increased emphasis is placed on the student's ability to demonstrate what they can do with the language, and to show increased proficiency in the interpretive, interpersonal and presentational modes of communication. Authentic multimedia resources bring the students in contact with many aspects of cultural life of the Spanish-speaking world that serve as prompts for compositions, emails, discussions, and projects.

**PREREQUISITE: Successful completion of a Level 2 class**

### **SPANISH CULTURE AND CONVERSATION (C&C)**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotating Schedule*

In Spanish Culture and Conversation students will review and expand vocabulary and structures from their previous years of study. As in previous classes, there is continued emphasis on student performance – what they can **do** with the language structures that they have already learned, but with greater emphasis on more spontaneous language, often in open-ended situations that require them to create with the language both orally and in writing. Through exposure to multimedia resources, articles, literary selections, and videos, students continue to learn to communicate and to negotiate meaning while learning about the cultures of the Spanish-speaking world.

**PREREQUISITE: Successful completion of the previous level class**

### **HONORS SPANISH LANGUAGE AND LITERATURE 1 (L&L 1)**

*Credits: 1*

*Length: Academic year*

*Level: Honors*

*Meeting Times: Periods 1-8 Rotation*

The Honors Spanish Language & Literature 1 course is for independent and motivated Spanish students with a strong foundation. Students review and expand vocabulary and structures from their previous years of study, but with greater emphasis on creativity in both written and oral performance. At the same time, through exposure to a variety of authentic literary selections, students develop reading strategies to capture the main ideas, to make inferences, and to discuss character development. By engaging in integrated performance assessments (compositions, discussions, debates, and projects), students continue to develop their ability to communicate and to negotiate meaning through listening, speaking, reading and writing and through learning about the cultures of the Spanish-speaking world.

**PREREQUISITE: A- or above in a regular class, or B+ or above in an Honors class and recommendation from the Department and the previous year's teacher**

### **HONORS SPANISH LANGUAGE AND LITERATURE 2 (L&L 2)**

*Credits: 1*

*Length: Academic year*

*Level: Honors*

*Meeting Times: Periods 1-8 Rotation*

Spanish Language and Literature 2 is a continuation of L&L 1. Students continue to review and expand vocabulary and structures from their previous years of study. Emphasis continues to be on student performance, both orally and in writing, and on the reading and interpretation of literary texts in a variety of genres. Students continue to engage in integrated performance assessments and to develop their ability to communicate and to negotiate meaning through listening, speaking, reading and writing and through learning about the cultures of the Spanish-speaking world.

**PREREQUISITE: A- or above in a regular class, or B+ or above in an Honors class and recommendation from the Department and the previous year's teacher**

### **HONORS SPANISH CONTEMPORARY CULTURE (SCC)**

*Credits: 1*

*Length: Academic year*

*Level: Honors*

*Meeting Times: Periods 1-8 Rotation*

This course is for those who, on the approval of their teacher and upon successful completion of Conversation and Culture or Language and Literature, are looking to increase and perfect the ability to express themselves in spoken and written language. The emphasis is on precision, variety, and vocabulary acquisition through discussion of authentic cultural materials such as contemporary film, printed matter and the web. There is some grammar review. (The curriculum could be adapted for those who have completed AP Language.)

**PREREQUISITE: A- or above in a regular class, or B+ or above in an Honors class and recommendation from the Department and the previous year's teacher**

## **SPANISH CONTEMPORARY CULTURE (SCC)**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This course is for those who, on the approval of their teacher and upon successful completion of Spanish Conversation and Culture, or Spanish Language and Literature 2, are looking to increase and perfect the ability to express themselves in spoken and written language. While precision in conversation is important, it is not the goal of this class. Non-scripted conversation skills, understanding another person's point of view and asking and responding to questions is expected to be acquired through discussion of authentic cultural materials such as contemporary film, printed material and the web. There is some grammar review. (The curriculum could be adapted for those who have completed AP Language.)

**PREREQUISITE: Successful completion of the previous level class (C&C/ L&L 2)**

## **AP SPANISH LANGUAGE & CULTURE**

*Credits: 1*

*Length: Academic year*

*Level: AP*

*Meeting Times: Periods 1-8 Rotation*

The AP Spanish Language and Culture course emphasizes communication by applying the interpersonal, interpretive, and presentational modes of communication in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The course strives not to overemphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in Spanish and is structured around six themes:

- Beauty and Aesthetics
- Contemporary Life
- Families and Communities
- Global Challenges
- Personal and Public Identities
- Science and Technology

The themes facilitate the integration of language, content, and culture and promote the use of the language in a variety of contexts. It engages students in an exploration of culture in both contemporary and historical contexts. The course develops students' awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions).

**PREREQUISITE: Successful completion of Honors Spanish Language & Literature 2 and recommendation from the Department and the previous year's teacher**

### **LATIN 1**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

In Latin 1, students build a solid foundation in Latin vocabulary, grammar, and syntax. The focus is on both the practical value and the aesthetic appreciation of the language. We explore topics in such fields as ancient history, classical mythology, art, theater, and popular entertainment through readings in elementary Latin. Students, additionally, improve English language skills through study of the Latin roots of English words. Students must acquire and build a working Latin vocabulary. Dictionaries are not permitted for use on tests.

**PREREQUISITE: None**

### **LATIN 2**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

Latin 2 builds upon the foundation of the language by developing concepts acquired in Latin 1. Students expand their understanding of grammar and syntax, develop their vocabulary, and refine their translation skills via extensive readings in Latin, creating a Latin newsletter, and presenting a one-act play in Latin. Students must acquire and build a working Latin vocabulary. Dictionaries are not permitted for use on tests.

**PREREQUISITE: Successful completion of the previous year's class**

### **LATIN 3**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

Latin 3 is a transitional course bridging the gap between elementary and advanced Latin. Students complete their study in Latin grammar and syntax, begin reading longer passages, and undertake the art and craft of translation, while being introduced to the writings of such authors as Caesar and Cicero. Dictionaries may be referenced for use on all tests.

**PREREQUISITE: Successful completion of the previous year's class**



### **HONORS LATIN 3**

*Credits: 1*

*Length: Academic year*

*Level: Honors*

*Meeting Times: Periods 1-8 Rotation*

Honors Latin 3 bridges the gap between elementary and advanced Latin. Students not only complete their study in Latin grammar and syntax, but also undertake explorations in Latin composition. The art and craft of translation is explored in greater detail via an introduction to the writings of such authors as Caesar and Cicero, and foundations are prepared for interpretational analysis and criticism. Students must continue to develop Latin vocabulary; dictionaries are not permitted on class tests; but may be used on a Midterm and Final Exam.

**PREREQUISITE: A- or above in a regular class, or B+ or above in an Honors class and recommendation from the Department and the previous year's teacher**

### **LATIN 4**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

Latin 4 offers an introduction to ancient Latin prose writings. We discuss the art and craft of various writing styles and undertake an analysis and interpretation of the works.

**PREREQUISITE: A- or above in a regular class, or B+ or above in an Honors class and recommendation from the Department and the previous year's teacher**

**Note: Dictionaries may be referenced for use on all tests.**

### **HONORS LATIN 4**

*Credits: 1*

*Length: Academic year*

*Level: Honors*

*Meeting Times: Periods 1-8 Rotation*

Honors Latin 4 offers an introduction to the poetry of Catullus and Vergil. We discuss the art and craft of poetry; undertake an analysis and interpretation of the works; discuss the technical terms of poetry; and write about and discuss themes central to the poems. Dictionaries may be referenced for use on all tests.

**PREREQUISITE: A- or above in a regular class, or B+ or above in an Honors class and recommendation from the Department and the previous year's teacher**

## **HONORS LATIN LITERATURE: AN ANTHOLOGY OF AUTHORS**

*Credits: 1*

*Length: Academic year*

*Level: Honors*

*Meeting Times: Periods 1-8 Rotation*

Honors Latin Literature presents a detailed study of a wide range of Latin classical prose and poetry by such authors as Lucretius, Cicero, Horace, Ovid, Livy, Augustus, Martial, Pliny, Seneca, Tacitus, and others. We explore a variety of themes and styles, discussing and writing about the art and craft of both prose writing and poetry; undertaking an analysis of the works; exploring current academic interpretation and criticism; and studying technical terms, including scansion and the use of rhetorical devices.

**PREREQUISITE: A- or above in a regular class, or B+ or above in an Honors class and recommendation from the Department and the previous year's teacher**

**Note: Dictionaries may be referenced for use on all tests.**

## **ADVANCED PLACEMENT LATIN - VERGIL AND CAESAR**

*Credits: 1*

*Length: Academic year*

*Level: AP*

*Meeting Times: Periods 1-8 Rotation*

Advanced Placement Latin is a fifth year course offered, upon approval of the teacher and World Language Chairperson, to students who have either begun their study of Latin in middle school, and who have advanced successfully to the highest levels in upper school, having read selections from the core anthology of authors; or to those who are able to demonstrate mastery of Latin at the advanced level, and who have read selections from a number of authors in original Latin, while at upper school, having prepared advanced work the previous summer on their own. Students must be capable of intense, rigorous work, and they must adhere to a strict curriculum timetable, whether they intend to take the exam in May, or to opt out. Students who take AP Latin complete two thousand lines of poetry and prose in the course of the school year which prepares them to write compare / contrast essays in English about the selections on Part II of the exam. Part I of the exam consists of 60 multiple-choice grammar and comprehension questions based on various authors assumed to have been read in previous years. Advanced Placement Latin is offered presently only as Vergil / Caesar curriculum by the College Board. Dictionaries may be referenced for use on all tests.

**PREREQUISITE: Honors Latin 4 or Honors Latin Literature class and recommendation from the Department and the previous year's teacher**

### **CHINESE 3**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

Chinese 3 is designed to reinforce and develop proficient communication in the language. Students continue to develop their understanding, speaking, reading and writing by synthesizing new vocabulary and previous learned material. Rigorous practice of spoken and written Chinese will be conducted. Culture is an integral part of the course and is introduced through the use of media, adapted readings and class discussions. The instruction will be conducted mostly in Chinese.

**PREREQUISITE: Successful completion of the previous year's class**

### **CHINESE 4**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

Students in Chinese IV consolidate their knowledge of Chinese through reading and writing. Discussions of the reading materials will be conducted regularly to develop students' skills in modern Chinese. There will be some independent writing required in this class. This course aims to help students solidify their ability to comprehend, speak, and produce paragraph-level Chinese. The instruction will be conducted mostly in Chinese.

**PREREQUISITE: Successful completion of the previous year's class**

### **AP CHINESE LANGUAGE & CULTURE**

*Credits: 1*

*Length: Academic year*

*Level: AP*

*Meeting Times: Periods 1-8 Rotation*

The AP Chinese Language and Culture course in Mandarin Chinese emphasizes communication by applying interpersonal, interpretive, and presentational skills in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students' awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions). Grammatical accuracy is not emphasized at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in Chinese.

**PREREQUISITE: Students who are in their fourth year of Chinese language study & students who have demonstrated proficiency in the language will, upon request, be allowed to take the class.**

## **COMPUTER EDUCATION**

### **MULTIMEDIA DESIGN**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

Multimedia Design combines different content types; text, images, audio, video, etc, to allow students to communicate concepts and ideas. Creative problem solving, experimentation, and refinement of technical skills will be emphasized. Through certain projects students will become aware of design concept, storyboarding, filming, editing, and creating relevant content. This course will count toward the 2 year arts requirement.

**PREREQUISITE: None**

### **INTRODUCTION TO DRONE-BOTICS ENGINEERING**

*Credit: 1*

*Length: Academic Year*

*Level: Regular*

*Meeting Times: 1-8 Rotation*

Introduction to Drone-botics will introduce students to the operation and construction of drones and robots. Students will build, operate and test complex drones and robots in order to complete assignments. They will also gain knowledge of basic engineering concepts and real-world applications of drones and robots.

**PREREQUISITES: None**

### **TECHNOLOGY INTEGRATION**

*Credit: 1*

*Length: Academic Year*

*Level: Regular*

*Meeting Times: 1-8 Rotation*

Students will learn how to work with various technology tools and integrate these tools into lessons that are based on the RPS curriculum. Students will analyze classroom units taught in the Lower and Middle School to match appropriate technology with the goal of enhancing student learning experiences. As a final project, students will design a lesson plan to be taught at the Lower or Middle School level, either individually or collaboratively. This course is designed to expose students to various technologies and applications in real-world settings. While it is hopeful that this course will spark interest in pursuing further exploration in Computer Science/Technology fields, it is also intended to show students alternative opportunities in technology that do not require programming or engineering backgrounds.

**PREREQUISITES: None**

## **INTRODUCTION TO COMPUTER SCIENCE**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This introductory course in computer science focuses on the basic concepts in computing using Java. The course comprises classroom instruction and lab exercises. The instructional portion of the course will demonstrate key concepts using a “live-code” and “hands-on” approach. Students will use these concepts in order to develop interactive applications.

**PREREQUISITE: Algebra 1**

## **ADVANCED PLACEMENT COMPUTER SCIENCE**

*Credits: 1*

*Length: Academic year*

*Level: AP*

*Meeting Times: Periods 1-8 Rotation*

AP Computer Science provides students with a foundation in object-oriented programming to prepare students for the AP exam. The class comprises classroom instruction and lab exercises. Topics include data structures, control structures, algorithms, arrays, and recursion. The class is based on the Java programming language.

**PREREQUISITE: Introduction to Computer Science**

## **ADVANCED SOFTWARE DESIGN**

*Credits: 1*

*Length: Academic year*

*Level: Post-AP*

*Meeting Times: Periods 1-8 Rotation*

This elective course focuses primarily on developing iPhone applications (apps) for the Rutgers Prep’s PK-12 community: Lower, Middle, and Upper School students, parents, and prospective families. This serves as a form of School pride and is a great way to give back to our community. Students will write new apps individually and in groups, and contribute to the development, maintenance, and improvement of existing apps on a year-to-year basis. Students will collaborate with the Art Department when designing user interfaces. If time permits, the goal will be to write these apps on the Android platform as well. All materials will be provided but students are strongly advised to have a Mac laptop.

**PREREQUISITE: AP Computer Science or Introduction to Computer Science and departmental approval**

## **UNITY GAME DEVELOPMENT**

*Credits: 1*

*Length: Academic year*

*Level: Post-AP*

*Meeting Times: Periods 1-8 Rotation*

This course is an advanced game design and development course. Students should be experienced programmers prior to enrolling in this course. They must have completed or enrolled in Advanced Software Design. This course will explore game design and development using the Unity Game Engine. Unity is a fully Integrated Development Environment (IDE) for developing games. This IDE provides an in-depth and advanced Application Programming Interface (API). The game development API includes prefab objects, many libraries, documentation, and video tutorials. Students will learn the game engine platform, the design and manipulation of game objects, and the various programming languages supported by Unity. There will be two-dimensional and three-dimensional objects used in two-dimensional and three-dimensional games. The various programming languages will allow students to manipulate and animate these objects for different platforms. The best part is that all materials are freely provided by Unity! In addition, Blender and Gimp (two free software programs) will allow students to experiment with creating and manipulating their own objects. This course is a Project-Based-Learning course with online tutorials and projects that promote creativity and design thinking.

**PREREQUISITE: Advanced Software Design**

**COREQUISITE: Advanced Software Design**

## **THEATER & DANCE**

### **INTRODUCTION TO ACTING**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This class introduces students to the study of acting and is open to all students regardless of previous performing experience. Students begin the year focusing on individual performing and move to partner work in the second semester. Throughout the year the class works together during exercises, in rehearsals for assigned performances, and as they critique their own and each other's work. Major areas of emphasis include fundamental physical and vocal performing skills, specific techniques such as learning an accent and stage combat, improvisation, delivering monologues, and scene study. Some assignments involve writing, reading, and memorizing, but much of this work can be completed in class and the course is chiefly "hands-on," with students expected to participate daily.

**PREREQUISITE: None**

### **ADVANCED ACTING: IMPROVISATION**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

Although improvisation is spontaneous, artful improvisation requires developing skills and an ensemble of performers through practice. Taking part in a variety of exercises will give students greater comfort with this kind of performing and improve their ability to work creatively and collaboratively with their classmates. The course will focus on improvisation as an end in itself, but may also use improvisation as a means to create a more polished performance or piece. The class will work to form a true performance ensemble as well as to improve each member's individual improvisation skills. Students will assess and critique their own work as well as that of professional performers. Several performances for an outside audience will be expected for students in the course.

**PREREQUISITE: Introduction to Acting or instructor approval**

**ADVANCED ACTING: SOLO PERFORMANCE [Offered in 2023/2024]**

**ADVANCED ACTING: SCENE STUDY [Offered in 2024/2025]**

## **INTERNATIONAL DANCE & CHOREOGRAPHY**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Period 9*

New as well as experienced dancers explore international dance forms, including Indian dance, African, Latin styles, European, and much more. Dancers will have the opportunity to work with multiple guest artists who will guide them through diverse creative processes so that they can choreograph their own international dances to be featured in our Spring Dance Concert.

**PREREQUISITE: None**

## **TOPICS IN DANCE**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This course is open to new as well as experienced dancers. Students will learn about anatomy and how the body moves and functions as a foundation to explore multiple forms of dance technique, such as ballet, modern, jazz, hip hop, and contemporary. Students will expand on their artistry and performance quality which will lead to an end of year performance. Students will also be guided through movement explorations in improvisation and will learn the fundamentals of choreography. Artist-studies will explore the lives, work processes, and repertory of prominent choreographers, with opportunities for guest-artist classes.

**PREREQUISITE: None**

## **ADVANCED DANCE: INQUIRIES IN DANCE**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

Through cultural investigations of dance forms, students will illuminate the social, historical, and political reasons behind why people dance. Students will seek to answer essential questions: What is good dance? Whose story is being represented through dance? How have people defined the ideal dancer's body? Is there a hierarchy in dance techniques? Students will try to uncover existing beliefs on these big ideas through technique, choreography, improvisation, dance history, and anatomy and will begin to formulate their own informed perspectives. Additionally, working with guest artists will connect students to the wider dance world.

**PREREQUISITE: Topics in Dance or International Dance & Choreography, or instructor approval**

**ADVANCED DANCE: CAREERS IN DANCE [Offered in 2023/2024]**

**ADVANCED DANCE: WELLNESS IN DANCE [Offered in 2024/2025]**



## MUSIC

### UPPER SCHOOL ORCHESTRA

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Period 9*

The Orchestra is open to string players who have developed necessary technical and sight-reading skills. The students perform repertoire that is selected from a variety of periods and styles. The orchestra meets four times a week, and performs in two orchestra concerts during the school year.

**PREREQUISITE: None**

### CHAMBER ORCHESTRA

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

Chamber Orchestra is open to students who play a string instrument at an advanced level. A variety of Chamber and Orchestral music will be studied and performed, ranging from the Renaissance and Baroque period to the Twenty-First century. The orchestra meets three times per week.

**PREREQUISITE: Approval of the instructor via audition, and minimum of four years playing a string instrument**

### CONCERT BAND

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Period 9*

Concert Band is open to any student who plays a woodwind, brass, or percussion instrument. Guitar and bass are not suitable for this ensemble. The ensemble meets four times per week. The repertoire will consist of traditional concert band literature.

**PREREQUISITE: None**

### BRASS ENSEMBLE

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

Brass Ensemble consists of French horn, trumpet, trombone, euphonium, and tuba. This ensemble will explore the unique sounds of the brass family. There will be a variety of music studied and performed, ranging from classical to modern. Students will learn how to work within a smaller ensemble. This ensemble meets three times a week.

**PREREQUISITE: Approval of the instructor; student must demonstrate a high interest and basic proficiency on their instrument**

### **SAXOPHONE ENSEMBLE**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

Saxophone Ensemble is open to students who presently play soprano, alto, tenor, or baritone saxophone. This course is performance based. Repertoire includes classical, jazz, and contemporary styles. Basic music theory and the history of wind instruments is included in this curriculum. This ensemble meets three times a week.

**PREREQUISITE: Approval of the instructor; student must demonstrate a high interest and basic proficiency on the saxophone**

### **WOODWIND ENSEMBLE**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

Woodwind Ensemble consists of flute, oboe, clarinet, bass clarinet, bassoon, and french horn. This ensemble will explore the unique sounds of the woodwind family. There will be a variety of music studied and performed, ranging from classical to modern. Students will learn how to work within a smaller ensemble. This ensemble meets three times a week.

**PREREQUISITE: Approval of the instructor; student must demonstrate a high interest and basic proficiency on their instrument. Student is required to also sign up for Concert Band.**

### **CONCERT CHOIR**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Period 9*

This ensemble is for students who enjoy singing and can match pitch. The students learn and perform vocal music of many styles and periods. They learn and apply vocal technique to performance in order to develop tone quality and tonal memory. This ensemble meets four days a week during 9th period and performs in two concerts throughout the school year.

**PREREQUISITE: None**

### **MADRIGALS ENSEMBLE**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

Madrigals is open through *audition ONLY* to students who sing at an advanced level. This group performs in two concerts during the school year as well as multiple events outside the school. The students perform repertoire that is selected from a variety of periods and styles. This ensemble meets three days a week during the 8-period rotation.

**PREREQUISITE: Approval of the instructor through audition *ONLY* and enrollment in an additional musical ensemble**

### **WOMEN'S VOCAL CHAMBER ENSEMBLE**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This group is open to any female singer with interest in singing in a chamber ensemble. The repertoire consists mostly of classical choral music along with some world, folk, and light contemporary pieces. During each class, students have the opportunity to enhance their vocal technique, performance, and musicianship skills with special emphasis placed on individual responsibility to the section during rehearsals and performances. This ensemble may provide both solo, as well as ensemble performance opportunities outside of the school day.

**PREREQUISITE: Admission into the class is by audition or with the approval of the instructor**

### **MUSIC THEORY**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

Expanding upon elements of music-reading and writing first encountered in performance ensembles (Band, Choir and Orchestra), Music Theory will focus on strengthening the student's grasp of music notation. During the course, students will systematically work through writing basic intervals, scales, chords and harmony while also working to develop an understanding of ear-training, melodic dictation and composition.

**PREREQUISITE: Approval of the instructor**

## **VISUAL ARTS**

### **DRAWING AND DESIGN**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

Drawing & Design is a foundations course. The class introduces the students to basic concepts of design using a variety of media such as pencil, ink, conté crayon, pastel and charcoal. The focus of this course is learning how to "see" in order to accurately and realistically draw from observation. Course work emphasizes the compositional elements and design principles that make up a successful work of art. Written and oral critiquing skills that reflect classroom work are substantial components of this introductory class.

**PREREQUISITE: None**

### **INTERMEDIATE ART MAKING**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

Intermediate Art Making is an intermediate class and a natural extension of Drawing & Design. Students will continue to hone, through in-class exercises and formal assignments, skills and concepts relating to the elements of composition through fully rendered drawings that are an exploration of advanced drawing concepts. In addition to drawing, this course also introduces the use of acrylics, watercolors and mixed media, in both traditional and non-traditional formats. Written and oral critiquing skills that reflect classroom work are substantial components of this intermediate level class.

**PREREQUISITE: Drawing & Design or portfolio review + department approval**

### **ARCHITECTURE and DESIGN 1**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

Architecture and Design 1 is a gateway to creative design exploration. A foundation of elements and principles leads the way to architectural/design practice. Students engage in two and three-dimensional projects, developing a design vocabulary both visual and verbal. Project based learning is key in this studio class. As the title states, designs will not only focus on Architecture but other styles such as Interior Design and Industrial Design. After completion, students understand and demonstrate design fundamentals, process, and applications.

**PREREQUISITE: None**

## **ARCHITECTURE and DESIGN 2**

*Credits: 0.5*

*Length: Fall semester*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

Architecture and Design 2 is an intermediate course. Design vocabulary expansion is completed through projects covering Architecture, Interior Design, Landscape Architecture, Adaptive Reuse, and Industrial Design. Project based learning remains a focal point of class. Realistic design assignments push students to think creatively and critically while they move through the design process.

**PREREQUISITE:** *Architecture and Design 1 or portfolio review + department approval*

## **ARCHITECTURE and DESIGN 3**

*Credits: 0.5*

*Length: Spring semester*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

Architecture and Design 3 is an intermediate course. Students explore through several design + build projects. What starts as concept, moves into design drawings, and finishes with a built product. The experiential nature of moving from idea to reality helps solidify the process of design and advances student growth.

**PREREQUISITE:** *Architecture and Design 2 or portfolio review + department approval*

## **ARCHITECTURE and DESIGN 4**

*Credits: 0.5*

*Length: Fall semester*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

Architecture and Design 4 is an advanced course: the curriculum has the students continuing to expand their design knowledge through challenging, yet fun, projects. The focus is not only on the overall outcome of projects but also the important details. The semester consists of a larger project that is usually focused on the RPS campus. This larger project will be broken down into manageable portions that allow each student to work from idea to final design drawings.

**PREREQUISITE:** *Architecture and Design 3 or portfolio review + department approval*

## **ARCHITECTURE and DESIGN 5**

*Credits: 0.5*

*Length: Spring semester*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

Architecture and Design 5 allows students to transition from hand graphics to computer aided drafting. The program AutoCad is learned allowing students to utilize the application creating content such as plan, sections, elevations, and details. Dynamic projects explore real world objectives and outcomes. As in previous sections the design process will lead the students from conceptual design to physical product.

**PREREQUISITE:** *Architecture and Design 4 or portfolio review + department approval*

## **ARCHITECTURE and DESIGN for SENIORS**

*Credits: 1*

*Length: Full Year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

Architecture and Design for Seniors is the culmination of four years of design at Rutgers Prep. More comprehensive projects will continue to solidify knowledge and content from the previous courses such as analysis, conceptual design, design drawings, and modeling. Projects will be completed using both hand graphics as well as computer drafting. The second semester will have the students complete a capstone project to be presented at the end of the year. Portfolio work will be a focus during the course for students interested in the collegiate design realm.

**PREREQUISITE:** *Architecture and Design 5 or portfolio review + department approval*

## **PHOTOGRAPHY 1**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

**Digital**

**Camera Requirements:** The student must own an appropriate digital camera (mirrorless or dslr) that has the capability of utilizing fully manual settings.

Photography 1 is a foundation Black and White photography course. Beyond mere absence of color, the rich environment of high contrast and subtle grayscales are explored. Traditional film photography provides history and context; the digital environment offers expansion beyond film limits. Students learn professional techniques leading to better pictures captured with the camera, enhanced to a higher level in post-production. Study of the masters and reflection of classroom work are substantial components of this introductory course. The Photography 1 course is available for students in the 10<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup> grades.

**PREREQUISITE:** *None*

## **PHOTOGRAPHY 2**

*Credits: 0.5*

*Length: Fall semester*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

**Digital**

**Camera Requirements:** The student must own an appropriate digital camera (mirrorless or dslr) that has the capability of utilizing fully manual settings.

Photography 2 is an intermediate course; the curriculum focuses on the composition of an image and concept behind the image. Symmetry, balance and harmony are major principles taught throughout the first half of the semester course. The politics of representation, the power of personal voice, and the impact of intention are major topics discussed throughout the second half of the semester course. Study of the masters and reflection of classroom work are substantial components of this intermediate level course.

**PREREQUISITE:** *Photography 1 or portfolio review + department approval*

### **PHOTOGRAPHY 3**

*Credits: 0.5*

*Length: Spring semester*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

***Digital***

**Camera Requirements: The student must own an appropriate digital camera (mirrorless or dslr) that has the capability of utilizing fully manual settings.**

Photography 3 is an intermediate course concerning bodies of work. Traditional photo essays, analytical time-based works, and experimental concept-driven bodies of work are produced. Printed bodies of work are critiqued on walls; digital collections of images are viewed sequentially on screens. Study of the masters and reflection of classroom work are substantial components of this intermediate level course.

**PREREQUISITE: *Photography 2 or portfolio review + department approval***

### **PHOTOGRAPHY 4**

*Credits: 0.5*

*Length: Fall semester*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

***Digital***

**Camera Requirements: The student must own an appropriate digital camera (mirrorless or dslr) that has the capability of utilizing fully manual settings.**

**Flash Requirements: Two (2) flash units. Each must have the capability of transmitting and receiving signals to and from each unit.**

Photography 4 is an advanced course; professional lighting techniques are practiced and a multimedia artwork is produced. Multiple lighting recipes are taught in both the ambient and strobe light realms. Instruction of camera gear and photography software promotes artwork made with distinction; a workflow similar to industry professionals is developed. A photo-essay is constructed employing all the skills acquired in the photography 4 curriculum; the topic is self-determined. Study of industry leaders and peer-review are substantial components of this advanced level course.

**PREREQUISITE: *Photography 3 or portfolio review + department approval***

## **PHOTOGRAPHY 5**

*Credits: 0.5*

*Length: Spring semester*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

### ***Digital***

**Camera Requirements:** The student must own an appropriate digital camera (mirrorless or dslr) that has the capability of utilizing fully manual settings.

**Flash Requirements:** Two (2) flash units. Each must have the capability of transmitting and receiving signals to and from each unit.

Photography 5 is an advanced course that primarily involves still-frame photography; there is also an element that involves video and sound. A multimedia statement is created; the topic is self-determined. The single work of art comprises professional class image-production, short video clips, audio tracks, and text. Specialized camera techniques and software specifics are introduced based on individual projects and individual needs. Study of industry leaders and peer-review are substantial components of this advanced level course.

**PREREQUISITE:** *Photography 4 or portfolio review + department approval*

## **CERAMICS 1**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This is a foundation course in the ceramic medium. The class begins exploring how, what and why clay becomes ceramic, flowing into implementing that knowledge through studying and creating forms, abstract as well as functional. Students explore and develop through using various forming methods including pinching, coiling, slabs and the potter's wheel. An introduction into the history of ceramics will accompany both the technical and creative avenues being used in the classroom.

**PREREQUISITE:** *None*

## **CERAMICS 2**

*Credits: 0.5*

*Length: Fall semester*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This is an intermediate level course in ceramics. The emphasis for this first semester long class is placed on refinement, intention and scale of work, paralleled with efficiency and effective use of class time. Using relevant visual media and the work of masters to support the expanding knowledge base and possibilities that exist with the materials used in the studio. Students begin to develop skills to critique and assess their work as well as the work of their peers.

**PREREQUISITE:** *Ceramics 1 or portfolio review + department approval*



### **CERAMICS 3**

*Credits: 0.5*

*Length: Spring semester*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This is the second semester intermediate course in ceramics. Focus is on complex forming methods and techniques; including but not limited to multi form assembly and alteration, single and double piece mold making methods, accompanied the development of various techniques used in the medium. The students utilize methods creating works in series identical and altered. Observing and studying master works will accompany the process. Students begin to develop skills to critique and assess their work as well as the work of their peers.

**PREREQUISITE: Ceramics 2 or portfolio review + department approval**

### **CERAMICS 4**

*Credits: 0.5*

*Length: Fall semester*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This is an advanced course of study in the ceramic studio, involving the introduction to glaze chemistry; clay formulation and kiln design will be of primary importance during this semester class. The students hold leadership roles within the workflow of the larger studio community as well as their own. Analysis and documentation drive the direction and intention through this semester. Individualized direction is at the heart of the process of this course. Students continue to critique and assess the work within the classroom setting.

**PREREQUISITE: Ceramics 3 or portfolio review + department approval**

### **CERAMICS 5**

*Credits: 0.5*

*Length: Spring semester*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

A second semester advanced course in the third year of study; individualized clay mixtures and glaze formulas are explored to develop an individual sense of style and aesthetic qualities unique to their personal bodies of work. Students engage in processes that require sustained development over a longer arching time frame. History and observing masters work in relation to individual students' choices will be explored through the quarter. Students continue to critique and assess the work within the classroom setting.

**PREREQUISITE: Ceramics 4 or portfolio review + department approval**

## **SENIOR CERAMICS**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This is a senior level course of advanced study. Students are focused on developing work for their portfolio to submit for college study or a supplemental addition to their college application. Exploration and study are individualized through student interest and personal directions in their work. The expectation is for high caliber effort, investment and leadership within the studio. Students observe, discuss and evaluate the aesthetic principles of ceramics as an art form.

**PREREQUISITE: *Ceramics 5 or portfolio review + department approval***

## **CRITIQUE AND PRODUCTION 1**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

Critique & Production 1 is an advanced level course for the advanced student interested in challenging both his/her skills and creative process. Building upon concepts introduced at the introductory and intermediate levels, students push their creative self-expression, explore modern and contemporary artists and techniques, while elevating their creativity to higher levels. Written and oral critiquing skills that reflect classroom work are substantial components of this advanced level class.

**PREREQUISITE: *Drawing and Design + any other full year of art class or portfolio review + department approval***

## **CRITIQUE AND PRODUCTION 2**

*Credits: 1*

*Length: Academic year*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This advanced level senior course is for the artist-student who has successfully completed Critique and Production 1. Students pursue and sustain individual projects with assistance from the instructor. Creative exploration is encouraged and fostered through a variety of self-directed independent work that is carried out in a variety of media and disciplines as determined by the individual student. Written and oral critiquing skills that reflect classroom work are substantial components of this upper level class.

**PREREQUISITE: *Critique and Production 1 or portfolio review + department approval***

## **HEALTH**

### **GRADE 9: HUMAN SEXUALITY**

*Length: Spring semester*

*Meeting Times: Periods 1-8 Rotation*

Grade 9 Health is a factual and informational class on the male and female anatomy. Subjects discussed are birth control, pregnancy, abortion, venereal disease and AIDS.

**PREREQUISITE: None**

### **GRADE 10: DRIVER EDUCATION**

*Length: Fall semester*

*Meeting Times: Periods 1-8 Rotation*

Grade 10 Health Drivers Education is offered to all 10th graders. This course is designed specifically to prepare the student to take the New Jersey written test.

**PREREQUISITE: None**

### **GRADE 11: JUNIOR HEALTH**

*Length: Fall semester*

*Meeting Times: Periods 1-8 Rotation*

Grade 11 Health is designed to provide students the opportunity to openly discuss and write about topics focusing predominantly upon one's mental and emotional health. A major objective of this course is for students to identify their own value systems while recognizing and respecting the different values systems of others. Topics addressed include, but are not limited to: coping with stress, depression, sexual attitudes, suicide prevention and chemical dependence.

**PREREQUISITE: None**

### **GRADE 12: COLLEGE BOUND**

*Length: Spring semester*

*Meeting Times: To Be Determined*

This is a required series of meetings for second semester seniors. The focus will be on issues related to leaving home and entering college. Large-group meetings will be interspersed with smaller groups so students have the opportunity to raise issues that are important to them. Prep faculty, Prep alumni and outside speakers will be part of this series.

**PREREQUISITE: None**

## **PHYSICAL EDUCATION**

### **PHYSICAL EDUCATION GRADE 9**

*Length: Fall semester*

*Meeting Times: Periods 1-8 Rotation*

The Physical Education curriculum includes Introduction to Yoga & Pilates and Introduction to the Fitness Center. Each student participates in a quarter of each of these. Evaluation is pass/fail based on preparation (appropriate dress) for class and participation.

**PREREQUISITE: None**

### **PHYSICAL EDUCATION GRADE 10**

*Length: Spring semester*

*Meeting Times: Periods 1-8 Rotation*

The Physical Education curriculum includes Lifetime Activities, Team Sports and Conditioning. Evaluation is pass/fail based on preparation (appropriate dress) for class and participation.

**PREREQUISITE: None**

### **HIIT (High Intensity Interval Training)**

*Credits: 0.5/0.5*

*Length: Fall semester/Spring semester*

*Level: Regular*

*Meeting Times: Periods 1-8 Rotation*

This elective course is designed to improve a student's overall fitness. Through functional training students will develop strength and stability by using kettlebells, TRX bands and a variety of equipment. In a focused and fun approach, students will learn how to maximize their physical potential.

**PREREQUISITE: Open to Grades 10-12. Grade 10 students may enroll in this course to fulfill the Grade 10 Physical Education requirement. Grade 11 and 12 students may enroll in this course as an elective.**

**Enrollment in this course is subject to departmental approval for all students**

## **COLLEGE COUNSELING COURSES & SPECIAL PROGRAMS**

### **SENIOR SEMINAR**

*Length: Fall semester*

*Meeting Times: Periods 1-8 Rotation*

The seminar is designed to provide guidance through the college application process. Through class activities students will be given broad and detailed information about college application procedures and strategies for a strong application. Students will receive advice and tips on how to write a college essay and tips on a college interview.

**PREREQUISITE: None**

### **JUNIOR SEMINAR**

*Length: Spring semester (March & April)*

*Meeting Times: Periods 1-8 Rotation*

The seminar provides an introduction to the college search and admission process. Students will develop preliminary college lists, design a resume of achievements and activities and begin to learn about the application process.

**PREREQUISITE: None**

### **SENIOR EXPLORATIONS** (May 2023)

This is the capstone experience to the senior year. Each senior selects from a menu of “Explorations” offered by RPS faculty members and participates in one between Senior Exams and Commencement. Explorations are varied in terms of time commitment, location, and cost, in order to provide a range of experiences to suit students’ particular needs and ambitions. Past offerings have included: exploring improvisation in art, math and poetry in New York City; working for the Nature Conservancy on Block Island; learning culinary arts at a local cooking school; exploring the business of Major League Baseball; learning to sail and race sailboats on Toms River; exploring the culture and history of Montreal, Canada; and teaching computer skills to orphaned children in Panama in partnership with the Orphaned Starfish Foundation.

**PREREQUISITE: None**

### **INNOVATIONS**

*Length: Academic Year*

*Meeting Times: To Be Determined throughout the school year*

The Rutgers Prep Innovation Program is a yearlong, mandatory, in-depth exploration of creative problem solving and collaborative learning. Students in 8th through 12th grade will embark on their choice of over 15 different programs, led by expert faculty with the additional support of local professionals and enthusiastic alumni. Our goal is to extend the learning our students have traditionally achieved in our classrooms to real world applications.

**PREREQUISITE: None**