Program of Studies

Pascack Valley Regional High School District
Hillsdale-Montvale-River Vale-Woodcliff Lake

2019-2020
PASCAK VALLEY REGIONAL
HIGH SCHOOL DISTRICT
Hillsdale - Montvale - River Vale - Woodcliff Lake

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Not all courses may be offered to all students at all times.
EDUCATIONAL GOALS

The Pascack Valley Regional High School District Board of Education affirms its responsibility to provide the students in the schools of this district a thorough and efficient education by adopting the educational goals developed under the direction of the chief school administrator in consultation with teaching staff members, pupils, parents, and other district residents pursuant to N.J.A.C. 6:8-2.1.

Pascack Valley Vision Statement:
“To create a culture of innovation, inquiry, and individuality, that promotes achievement and choice by cultivating the skills needed to compete and collaborate as ethical and responsible global citizens.”

Pascack Valley Mission Statement:
“To prepare students for successful college, career, and life experiences with the needed mindset, skills, structures, and knowledge to accomplish that goal.”

Students will:

• Acquire basic skills in obtaining information, solving problems, thinking critically, and communicating effectively;

• Acquire a stock of basic information concerning the principles of the physical, biological, and social sciences, the historical record of human achievements and failures, and current social issues;

• Become effective and responsible contributors to decision-making processes of political and other institutions of the community, state, country, and world;

• Acquire the knowledge, skills, and understanding that permit one to play a satisfying and responsible role as both producer and consumer;

• Acquire 21st century career entry level skills and acquire knowledge necessary for further education;

• Acquire the understanding of and the ability to form responsible relations with a wide range of other people, including but not limited to those with social and cultural characteristics different from their own;

• Acquire the capacities for playing satisfying and responsible roles in family life;

• Acquire the knowledge, habits, and attitudes that promote personal and public health, both physical and mental;

• Acquire the ability and the desire for creative expression in one or more of the arts and appreciation for the aesthetic expressions of other people;

• Acquire an understanding of ethical principles and values and the ability to apply them to their own lives;

• Develop an understanding of their personal worth, abilities, potentialities, and limitations;

• Discover the enjoyment of learning and acquire the skills necessary for a lifetime of continuous learning and adaptation to change.
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THE ADMINISTRATION RESERVES THE RIGHT TO CANCEL ANY OFFERING WHEN INSUFFICIENT ENROLLMENT WARRANTS.

Not all courses may be offered to all students at all times.
A MESSAGE FROM THE SUPERINTENDENT

Dear Students:

The Pascack Valley Regional High School District provides a diverse and high-quality program of studies. Our courses are designed to meet or exceed the New Jersey Student Learning Standards, are demanding, incorporate technology, and are able to be adapted to the individual needs of your learning style.

As students, you should carefully select courses for your academic program in consultation with your parents/guardian and guidance counselor. Selecting the courses that best complement your abilities and interests is very important, as your selected program of studies will set the foundation for your academic success.

Mr. Erik Gundersen
Superintendent

A MESSAGE FROM THE PRINCIPALS

Dear Students and Parents:

In this Program of Studies you will find a description of courses offered in the Pascack Valley Regional High School District. Read it carefully! There are many courses available, and you will want to be sure that the choices you make are right for you. Guidance counselors, faculty members, supervisors, and administrators are all available to assist students and parents before making a final decision.

The Pascack Valley Regional High School District is one of the finest in the state of New Jersey. Over the years many new programs have been created to meet the needs and interests of our student body. The new high school graduation requirements are reflected in the many changes in our curriculum and in the sequencing of some of our courses. Pascack Hills and Pascack Valley reflect the many educational improvements being made to prepare all of our students for the next stage in their education and professional lives.

High school is a time of enormous growth and meaningful challenge. We, the professional staff and your partners in this journey of learning, stand ready to promote that growth and provide that challenge.

If you have any questions concerning course selection, please consult your guidance counselor.

We wish you all the best in the planning process.

Mr. Thomas DeMaio, Principal, Pascack Valley
Mr. Glenn deMarrais, Principal, Pascack Hills
GRADUATION REQUIREMENTS

In order to graduate from the Pascack Valley Regional High School District, a student must sit for the New Jersey Partnership for Assessment of Readiness for College and Careers (PARCC) and pass it (or one of the equivalent assessments allowed by the NJ Department of Education) and earn a total of 120 credits including course credits in a minimum of each of the following areas:

- 4 years of English
- 4 years of Physical Education and Health Education
- 3 years of Mathematics
- 3 years of Science (Biology, Chemistry and Physics)
- 3 years of Social Studies
- 1 year of Visual/Performing Arts
- 1 year of 21st Century Life and Careers (career education and consumer, family and life skills, or vocational-technical education)
- ½ year of Financial Literacy
- 2 years of a World Language

The State of New Jersey requires 150 minutes of Physical Education / Health & Safety per week as per J.S.A. 18A:35-5, 7 and 8.

In addition to these course and credit requirements each student must:

- Sit for the state required test: Partnership for Assessment of Readiness for College and Careers (PARCC) and pass (or one of the equivalent assessments allowed by the NJ Department of Education);
- Be scheduled for a minimum of thirty (30) credits for each year of enrollment and earn a minimum of one hundred twenty (120) credits for graduation;
- Earn twenty-five (25) credits in the final year of school;
- Enroll in and complete a prescribed remediation program when such remediation is required to fulfill minimum standards established by the State of New Jersey or by the Pascack Valley Regional High School District.
PROGRAM SELECTION

This Program of Studies describes the Pascack Valley Regional High School District’s course offerings and the levels available within each academic discipline. The diversity of the program is an indication of our commitment to provide each student with the opportunity to maximize his/her potential while in high school.

Students and parents, with the assistance of their guidance counselor, may select courses that reflect individual interests, aptitudes, and goals. This will lead to the successful completion of graduation requirements. Department supervisors will make recommendations for level placement for incoming 9th graders. This will be based on articulation with personnel of the sending districts, teacher recommendations, standardized test scores, and, in certain instances, scores on assessments developed by subject area departments.

Program development is an ongoing process — not a static one. Each year guidance counselors will meet with students to review course selections considering the student’s academic success and changing educational objectives.

ACADEMIC REQUIREMENTS FOR COLLEGE ADMISSION

It is recommended that students who are planning to attend college complete a schedule of academic courses including the following:

- English: 4 years
- Mathematics: 3 years; 4 years for intended math, science and engineering majors
- Social Studies: 3-4 years
- Science: 3 years; 4 years for intended science and engineering majors
- World Language: 2-3 years; a concentration in one language is recommended
- Electives: Chosen from any academic discipline

Considering the vast number of institutions of higher learning and the wide variety of admissions standards, it is wise to consult college catalogs and the guidance department for specific requirements of individual colleges and universities.

The suggested academic program listed above does not include all the state-endorsed requirements necessary to obtain a New Jersey high school diploma. Please refer to the “Graduation Requirements” section.
OVERVIEW OF A TYPICAL STUDENT’S CYCLE

The chart below is based upon the graduation requirements of the State of New Jersey and the Pasccack Valley Regional High School Board of Education. In a seven period day, it is possible for a typical student to accumulate 140 credits before graduation. Five credits will be awarded for a course that meets for an entire year, 2.5 credits for a semester course.

The following is the typical course-taking pattern for a student enrolling in the district. Specific courses to be taken will be determined in consultation with the student, parents, and their guidance counselor.

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<th>PER</th>
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<th>SOPHOMORE</th>
<th>JUNIOR</th>
<th>SENIOR</th>
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<td>English II</td>
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<td>3</td>
<td>Mathematics</td>
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<td>4</td>
<td>Science</td>
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<td>Common Lunch</td>
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<td>5</td>
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<td>Elective</td>
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<td>Physical/Health Education</td>
<td>Physical/Health Education</td>
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*Financial Literacy is a mandated course from the state of New Jersey and is required for graduation. Most students opt to take this course in their freshman year. There is an online/hybrid Financial Literacy class that may also be taken to fulfill this requirement.
ENGLISH DEPARTMENT

COURSE DESCRIPTIONS

The English program in the Pascack Valley Regional High School District is developmental in nature. It seeks to foster improvement of comprehension through reading a wide range of literature, and the ability to express one’s thoughts coherently through a variety of writing and oral presentations. Students study language and literature, becoming discerning readers, critical thinkers, and expressive writers. English classes provide opportunities for civil discourse among students and large groups, small groups, and individuals.

In addition to the sequential four-year college prep program, the English department offers a variety of courses: honors and advanced placement courses for outstanding, highly motivated students, courses for those who need additional work with reading, writing, and/or comprehension skills, and a selection of electives which allow students to pursue special interests.

Honors Courses

Prerequisites for admission

Grades 9, 10, 11, 12

Students in English honors programs will be engaged in the intensive analysis of representative works from various genres and periods, while learning to precisely and effectively use written and oral language. Through speaking, listening, writing, and reading, students will learn to recognize and utilize a variety of rhetorical strategies for more effective communication.

The courses for the honors programs, grades 9, 10, 11, and 12 are designed to meet the needs of the student who has superior ability, a mastery of skills, high self-motivation, and a strong desire to be challenged in the specific area of English. These courses also have the highest degree of difficulty for the particular grade level—the most in quantity of work and assignments, the highest expectations in quality of performance, and a great deal of independent work.

Honors students are expected to maintain a high level of academic interest, demonstrate a sophisticated level of critical thinking, and be self-motivated learners and generators of scholarly material. Honors students must additionally demonstrate their ability to be effective writers, in order to enhance communication and shared knowledge within the classroom.

Placement is made by teacher, supervisor, and principal recommendation using the following criteria:

- Students in honors classes must maintain a B average to stay in this level.
- Students in college preparatory classes must demonstrate mastery of college preparatory skills and content with a solid A average to be considered for placement in honors or AP.
- Students in 10th or 11th grade currently enrolled in CP English who are recommended for honors and would like to enroll in AP Language or AP Literature must take an additional assessment, and perform at a high level on that assessment.
English I/Honors English I: Elements of Literature  
Grade 9

This course consists of a study of various texts with a focus on the characteristics of literary genres including: poetry, drama, short and long fiction, as well as nonfiction. Students will practice research, presentation skills and composition, with a focus on the interrelationship of these areas. Instruction in library study skills is provided early in the school year in preparation for research assignments throughout the four years. Vocabulary and language studies are related to literary selections and root study.

The study of literature encompasses the analysis of major themes and ideas in contemporary and classic works of fiction and nonfiction. Students will have the opportunity to read a wide range of literature from many periods in many genres in order to build an understanding of the texts, of themselves, and of the cultures of the United States and the world.

English II/Honors English II: Foundations of Literature  
Prerequisite: 9th Grade English  
Grade 10

Activities in English II continue to be focused on the study of language, literature, and writing. Students will examine various archetypes in classical and contemporary works of world literature. The essential questions that guide the course are:

- What stories have we told and do we continue to tell? Why?
- Whose stories are missing and how does that impact society as a whole?

Students will recognize conceptual foundations in various literary texts. Both classic and contemporary literature continue to provide insights into human relationships and motivation, building student understanding of the many dimensions of human experience. Writing assignments focus on the precise and effective use of language and the clear organization of thoughts. Vocabulary is studied in conjunction with literary offerings and supplemented by class work on the skills needed for success on the PSAT and SAT tests.

English III/Honors English III: American Literature  
Prerequisite: 10th Grade English  
Grade 11

English III is designed to further students’ preparation for college. Literary studies (with emphasis on American literature) include a thorough examination of the novel, drama, poetry, and essay in terms of form and content. Emphasis is placed on composition skills and exact use of language on many levels: formal, informal, colloquial, and dialectical. Vocabulary study is both contextual through literature study and focuses on etymology while preparing students for success on standardized examinations including the SAT.
American Studies/Honors American Studies
Honors placement by recommendation of previous English and US History I teacher with Supervisor approval
Grade 11
This course takes the place of 11th grade US History II and Junior level English. Students will fulfill their graduation requirements and credit for both 11th grade American History and 11th grade English.

American Studies provides an interdisciplinary examination of the historical, political, social, cultural, and literary heritage of the United States from the industrial era to contemporary times. The course highlights the relationship between historical events and literary trends in America over the past century. The course is taught by both a History and English teacher, who collaborate with each other in order to bring challenging, dynamic, and creative instruction to the classroom. American Studies emphasizes the analysis of primary source materials and literature, the development of critical thinking skills, and the building of learning communities of students working together toward common goals. Students will be called upon to actively construct their own understanding of American history and literature, and synthesize that understanding in a variety of technology-centered and problem-based activities and assessments.

English IV/Honors English IV: Senior Writing/Senior Themes
Prerequisite: 11th Grade English
Grade 12
The first semester of English IV will focus on writing in a variety of modes including: narrative, synthesis, argument, and personal response. The second semester will focus on critical reading and thinking skills, using texts that are thematically applicable to a graduating senior: Identity, Power and Freedom, and Decisions and Success. Students will be exposed to college-level literature and concepts, making connections amongst genres, themes, time periods, and authors. Students are expected to apply the writing skills obtained in the first semester of Senior Writing within each unit of Senior Themes. Multiple opportunities are provided for individual and group projects, as well as oral presentations.

Other Full-Year English Courses
Grade 11, 12
The following are full-year courses; students may select one of these courses to satisfy the requirement for graduation (one year of an English class).

Sports and Literature
Grade 11, 12
This multi-media course college preparatory course, with the focus on literature, will introduce the history and importance of sports in our society. The students will be introduced to important figures, trends, and developments in sports as well as utilize print and visual media about sports. Students will look to understand the relationship of sport and society, examine the impact that sports have had on society, and understand how this is reflected through literature.

Literature of the Holocaust/Honors Literature of the Holocaust
Grade 11, 12
This course will expose students to the events of the Holocaust through a wide variety of fiction, drama and poetry written during and after the Holocaust by authors, survivors and witnesses. Readings and discussions will focus on the voices of victims, the testimony of survivors, the accounts of resistance, the stories of rescue and heroism, the German experience, and the aftermath response and reflection, connecting past to present through multiple perspectives.
Language, Myth, and Human Culture/Honors Language, Myth, and Human Culture

Grades 11, 12

The first major units of this course will focus on the types of writing needed to excel in college. Students will practice analytical, persuasive, and narrative forms through a writing workshop format. Through comparative analysis of myths, motifs, and symbolism from diverse cultural traditions, the course will transition to an examination of mythical, historical, theological and scientific knowledge in order to understand modern human culture.

11th and 12th Grade students enrolled in Honors Language, Myth, and Human Culture or Honors Literature of the Holocaust have the option of earning college credit for their courses by registering with Seton Hall University or Kean University respectively. Please note that dual enrollment is not required; students will receive honors credit whether or not they elect to register for college credit.

Advanced Placement Language and Composition

Grades 11, 12

This Advanced Placement course is one which may be accepted for college credit at a number of participating colleges and universities upon the student's successful completion of the College Entrance Board’s Advanced Placement Examination in English Language and Composition. Students are required to take the Advanced Placement Examination in May.

This course is designed to meet the needs of the student who has superior ability, a mastery of skills, self-motivation, and a strong desire to be challenged. As an Advanced Placement course that is equivalent to an entry-level college English class, this course has the highest level of expectations with regard to quality of performance and independent student work ethic.

Students will learn to become skilled readers of complex prose written in a variety of periods, disciplines, and rhetorical styles. Emphasis will be placed upon the expository, analytical, and argumentative forms of writing in order to prepare students to communicate effectively with mature readers. The intense concentration on language use in this course will enhance students’ abilities to use grammatical conventions both appropriately and with sophistication while they develop stylistic maturity in their own writings. Readings include a wide range of authors including autobiographers, critics, essayists, journalists, political writers, science writers, and fiction writers.

Advanced Placement Literature and Composition

Grades 11, 12

This Advanced Placement course is one which may be accepted for college credit at a number of participating colleges and universities upon the student's successful completion of the College Entrance Board's Advanced Placement Examination English Literature and Composition. Students are required to take the Advanced Placement Examination in May.

This course is designed to meet the needs of the student who has superior ability, a mastery of skills, self-motivation, and a strong desire to be challenged in the specific field of English. As an Advanced Placement course, which is equivalent to an entry-level college English class, this course has the highest level of expectations with regard to quality of performance and independent student work ethic.
Students will analyze and interpret literature through careful study and critical reading of selected literary texts. They will engage in an independent reading program closely supervised by the classroom teacher. They will learn to use the various modes of discourse and to recognize authorial rhetorical strategies while practicing precise and effective use of language in their own writings. Through the study of a variety of genres such as drama, fiction, poetry, and nonfiction, students will demonstrate proficiency as appropriate for an introductory college English course.

ELECTIVES

21st Century Journalism & Media
Full-year elective
This course satisfies the full year requirement for a practical art
Grades 9, 10, 11, 12

21st Century Journalism & Media is a full year elective publication course. The emphasis in this course is on desktop publishing (newspapers, magazines, photography, yearbooks, fliers, brochures, ads, etc.). This is a product-based, hands-on class. Students will be involved in the production and distribution of publication materials including advertising, on-line [technology] production as well as the photography, artwork, cartooning, writing, and photographic aspects of publications work.

Honors Advanced 21st Century Journalism & Media
Full-year elective
This course satisfies the full year requirement for a practical art
Prerequisite for the class is 21st Century Journalism & Media or teacher consent
Grades 11, 12

Honors Advanced 21st Century Journalism & Media is an opportunity for students to immerse themselves in an intensive, largely self-directed experience during which they will produce a variety of multimedia content. This class will provide an avenue toward web, broadcast, and print product, and digital tools and alternative storytelling techniques will be emphasized. Students will be expected to reach beyond the building’s walls in pursuing stories and will interact and collaborate to meet team goals. Students will not only be held to high standards with their product but also with their adherence to professional standards, ethics, integrity, and deadlines. Student publications will anchor operations in this class, including its weekly sports and news shows.

Honors Advanced 21st Century Journalism & Media II
Full-year elective
This course satisfies the full year requirement for a practical art
Prerequisite for the class is Honors Advanced 21st Century Journalism & Media
Grades 11, 12

Honors Advanced 21st Century Journalism & Media II offers the student, who has successfully completed Honors Advanced 21st Century Journalism & Media, an opportunity to further develop his/her writing, reporting, layout, speaking, editing, computer, management, business, and photography skills. Assigned to the same class as the Honors Advanced 21st Century Journalism & Media students, the Honors Advanced 21st Century Journalism & Media II student is required to meet an even more demanding set of criteria. Additionally, the Honors Advanced 21st Century Journalism & Media II student is required to be a member of the Editorial Board and to hold (and meet the requirements of) one of the top positions on the staff on the newspaper. Beyond writing stories focusing on news, features, opinion editorials sports, and entertainment, and other assigned stories, the Honors Advanced 21st Century Journalism & Media II student also develops and applies the management skills required for producing and distributing The Smoke Signal and The Trailblazer.
Film and Literature: Understanding Movies from Script to Screen
Full-year elective Grades 9, 10, 11, 12
This course satisfies the full year requirement for a practical art
This course will provide the opportunity for students to approach film with an understanding of and an appreciation for the techniques employed in the evolution of film from concept to screen. Students will understand that the creation of a film depends on a variety of skilled professionals and will have the opportunity to explore those various roles and responsibilities, including screenwriter, cinematographer, storyboard/art producer, actor, editor and director. The class will highlight the process whereby written texts such as novels or screenplays are translated from the written to the visual and have an opportunity to learn how film critics interpret this art form. Students will also understand the financial and marketing aspect of the film industry and the cultural, political and social influence of Hollywood in American society.

Creative Writing
Full-year elective Grades 9, 10, 11, 12
This course satisfies the full year requirement for a practical art
Creative Writing is a full-year, five-credit course designed for students who wish to explore a variety of genres. Readings in multiple genres, lessons in a variety of writing techniques, intense writing practice and self-evaluation are the basis of this course. The class is run in a workshop model, through ongoing writing, sharing, and revising work. Models, mini-lessons based on technique, daily writing, and peer and teacher feedback are at the core of the course work. Students will be assessed by portfolio evaluations, daily work completion and assessment, and participation in peer critiques.

Public Speaking
Half-year elective Grades 9, 10, 11, 12
This course satisfies half of the requirement for a practical art
Public speaking is not just about formal presentations. This course will address all the important aspects of public speaking, including but not limited to, audience, content and delivery. Students will be exposed to a variety of effective speeches from literature, history, film and current events. They will deliver informal and formal speeches on various topics - often impromptu - and will practice active listening techniques as audience members. By the end of the semester, students will have a firm understanding of all the important aspects of effective public speaking, will have put these techniques into practice, and will have self-assessed their speaking using video.

Not all courses may be offered to all students at all times.
SOCIAL STUDIES DEPARTMENT

COURSE DESCRIPTIONS

The overall goal of the Social Studies Program at the Pascack Valley Regional High School District is to help prepare our students to become lifelong learners. Throughout the Social Studies program, students are exposed to higher-level thinking and learning skills, document-based instruction, and differentiated instructional techniques to enhance the students’ sense of inquiry.

Students are required by New Jersey State Graduation Requirements to take one year of World History and two years of United States History in order to graduate from high school. Students take World History in ninth grade, U.S. History I in tenth grade, and U.S. History II in eleventh grade. In addition to the required program, students are encouraged to select courses from the electives offered by the department.

Honors/Advanced Placement Courses

Placement by recommendation of teacher and supervisor

Any student enrolled in an Honors/AP class must maintain a B average throughout the year in order to continue in that class, unless given special permission by the Supervisor. Students must be recommended for continuation in the Honors/AP program by their teacher based upon the successful completion and high level of achievement in their current Honors/AP course. A student with exceptional performance evaluations in other social studies courses may be recommended for placement in honors courses as requested by the teacher and approved by the Supervisor and building Principal. Each student must have a minimum of a solid “A” to be considered for discussion for a move to Honors/AP. In addition, if a student wishes to take AP US History II from Honors USI, he or she must take a placement test given by the Supervisor of Instruction and perform at a high level on that assessment.

The objectives of the Honors/AP program in Social Studies focus on the analysis, synthesis, and evaluation of historical data. Students are expected to maintain a high level of academic interest, demonstrate a sophisticated level of critical thinking, and be self-motivated learners and generators of scholarly material. Honors/AP students must additionally demonstrate their ability to be effective writers, in order to enhance communication and shared knowledge within the classroom. The chronological course content for the honors level courses is the same as the college prep courses.

World History

Grade 9

The purpose of this course is to introduce the major historic events, concepts, and ideas in world history. The chronological emphasis will begin in the Middle Ages, and draw from those themes and concepts students learned about the ancient, classical, and medieval worlds. Additionally, European civilization will be analyzed and students will learn how it influenced the rest of the world.

U. S. History I

Prerequisite: 9th Grade World History

Grade 10

This course provides students with a comprehensive understanding of the development of the American nation through analysis of the following periods of major change in America’s history: The Foundation and Expansionary Periods, Nationalism and Sectionalism, Industrial Development and Economic Contraction.
**U. S. History II**  
**Prerequisite:** 10th Grade U. S. History I  
**Grade:** 11  
College Prep U. S. History II provides students with an understanding of the knowledge and attitudes of the American people since the later part of the 19th century: Imperialism, Globalization, and American Expansionism are highlighting through the study of domestic and global social, political, and economic issues.

**American Studies/Honors American Studies**  
**Honors placement by recommendation of previous English and US History I teacher with Supervisor approval**  
**Grade:** 11  
This course takes the place of 11th grade US History II and English III. Students will fulfill their graduation requirements and credit for both 11th grade American History and 11th grade English.

American Studies provides an interdisciplinary examination of the historical, political, social, cultural, and literary heritage of the United States from the industrial era to contemporary times. The course highlights the relationship between historical events and literary trends in America over the past century. The course is taught by both a History and English teacher, who collaborate with each other in order to bring challenging, dynamic, and creative instruction to the classroom. American Studies emphasizes the analysis of primary source materials and literature, the development of critical thinking skills, and the building of learning communities of students working together toward common goals. Students will be called upon to actively construct their own understanding of American history and literature, and synthesize that understanding in a variety of technology-centered and problem-based activities and assessments.

**Advanced Placement U.S. History I & II**  
**Prerequisite:** 9th Grade World History, placement by recommendation of teacher and supervisor  
**Grades:** 10, 11  
Any student enrolled in an Advanced Placement class **must** maintain a B average throughout the year in order to continue in that class, unless given special permission by the Supervisor. An Advanced Placement course is one that may be accepted for college credit at a number of participating colleges and universities upon the student’s successful completion of the Advanced Placement examination. This could enable students to start their college work in Social Studies at a more advanced level or to broaden their college experience by pursuing courses in other areas that might not otherwise fit into their programs of study. This course is designed to prepare the highly able student to succeed on the Advanced Placement test, which they are required to take in May of their junior year.

This course is designed to meet the needs of the student who has superior mastery of skills, self-motivation, exceptional reading and writing skills, and a strong desire to be challenged in the specific field of Social Studies. As an Advanced Placement course that is equivalent to an entry-level college class, this course has the highest level of expectations with regard to the quality of performance and independent student work ethic. The College Board Advanced Placement Program in American History dictates the curriculum for these courses.
ELECTIVES

Advanced Placement World History
Placement by recommendation of teacher and supervisor Grades 11, 12
The purpose of the AP World History course is to develop greater understanding of the evolution of global processes and contacts, in interaction with different types of human societies. This understanding is advanced through a combination of selective factual knowledge and appropriate analytical skills. The course highlights the nature of changes in international frameworks and their causes and consequences, as well as comparisons among major societies. The course emphasizes relevant factual knowledge deployed in conjunction with leading interpretive issues and types of historical evidence. The course builds on an understanding of cultural, institutional, and technological precedents that, along with geography, set the human stage.

Sociology
Half-year elective Grades 10, 11, 12
The purpose of this course is to give students an introduction to the field of sociology. Students will focus on the social structure, patterns of culture, social class, deviance, mass media, and social problems.

AP Macroeconomics
Half-year elective Grades 10, 11, 12
AP Macroeconomics is an introductory college-level course that focuses on the principles that apply to an economic system as a whole. The course places particular emphasis on the study of national income and price-level determination; it also develops students’ familiarity with economic performance measures, the financial sector, stabilization policies, economic growth, and international economics. Students learn to use graphs, charts, and data to analyze, describe, and explain economic concepts.

Constitutional Law
Half-year elective Grades 10, 11, 12
This course is designed to inform the student about the American judicial system. Emphasis is placed on due process of law as expressed in the fourth, fifth, sixth, eighth, and fourteenth amendments to the U.S. Constitution. Students will explore and debate the reasoning of Supreme Court decisions and the ramifications of these decisions.

Religion in America
Half-year elective Grades 10, 11, 12
The major goals of this course are for students to learn the role that religion has played in the development of civilization and for them to understand how the religious experience of the American people has been affected by rapid economic, social, and political changes throughout history. Students will perceive the differences and similarities among the various religious beliefs in the United States and will determine how knowledge marks the beginning of understanding and tolerance.

Critical Analysis of History Through Film
Half-year elective Grades 11, 12
This elective will offer an opportunity for students to review concepts in American History through the media of film studies. The themes inherent in the U.S. I and U.S. II courses have been the subjects of many popular movies. Students will view these films in class and be asked to evaluate each in light of historical accuracy and the use of “poetic license” in the making of those movies.

Not all courses may be offered to all students at all times.
One World, One Community: World Problems Today
Half-year elective Grades 11, 12
Students in this course will gain insight into a myriad of current world problems by examining multiple perspectives presented in newspapers, magazines, mass media, and the Internet. Topics such as environmental policies, population trends, world hunger, and the international war on drugs will be explored as students engage critically with primary and secondary sources.

Psychology
Ramapo College Dual Enrollment Option
Full-year elective- Honors Grade 12
The Psychology course gives students the opportunity to acquire quite possibly the most important life skills they will ever need: the ability to better understand themselves, and others. The course establishes the fundamental principles of psychology and offers practical knowledge and techniques, in addition to important theories. Major units studied include: schools of thought, research methods, biology and behavior, sleep and states of consciousness, and personality theories. Psychology will help students reach a greater understanding of how individuals come to understand each other in social situations. The course is great preparation for college and students will have the opportunity to earn credits by enrolling with Ramapo College of New Jersey. To receive college credit, a student must enroll through the college and pay a reduced per credit fee and successfully pass the course; the course is four credits.

An Introduction to the Analysis of Public Policy
Syracuse University Project Advance
Half-year elective- Honors Grade 12
Syracuse University Project Advance is a cooperative program between the Maxwell School of Public Affairs & Citizenship at Syracuse University and the Pascack Valley Regional School district that allows high school seniors to enroll in a freshman-level college course. Students who register for the three college credits and successfully complete the course are entitled to a regular Syracuse University transcript recording the credits earned. The course, which is taught by an adjunct instructor of Syracuse University, enables students to gauge their abilities to do college work in an introductory freshman-level course prior to full-time college study. In order to receive the college credit, students must pay a significantly reduced, per credit fee to Syracuse University.

The Public Affairs course is designed to improve students’ abilities to analyze, evaluate, synthesize, apply, identify, and forecast the basic components of a public policy. The stages of creating a public policy begin with learning how to locate, collect, use, and present information from surveys, print and on-line resources, and interviews. Students will participate in efforts to develop a public policy, assess its costs and effects, and create strategies for its implementation. Course requirements include: Five Module Papers, a "Quality" Team Project, Community Service and Class and Community Participation Projects. Public Affairs is being combined with the American Government to create a year-long senior elective. Students will also receive honors credit on their high school transcript.

Not all courses may be offered to all students at all times.
AP American Government and Politics
Half-year elective- Honors
Grade 12
This course is designed to help students develop a working knowledge of the important concepts, theories, and facts of American government and politics. Coursework is calculated to prepare students for the Advanced Placement examination and includes the study of public policy, government institutions, political parties, interest groups, public opinion, mass media, and civil rights. Political theory, political beliefs, attitudes and actions will also be addressed.

History of Sport in America
Half-year elective- Honors
Grade 12
This course traces the history of the USA from the standpoint of organized and professional sports across the decades. Students will be exposed to the economic, political, and social impacts on sports as they relate to the development of our country’s national identity. Topics include the impact of sports on race relations, gender issues, capitalism, globalization, regionalization and cultural identity.

http://www.materdei.ie/index.cfm/page/newsarchive/id/56
MATHEMATICS DEPARTMENT

COURSE DESCRIPTIONS

The mathematics program for the Pascack Valley Regional High School District seeks to develop the mathematical skills, understandings, and attitudes that students need to meet the quantitative demands of college, career, and everyday life. Students at every level are given opportunities to solve problems, communicate about mathematics, reason mathematically, and make connections within mathematics and between mathematics and other subjects. Mathematics courses at the Pascack Valley Regional High School District are aligned to the New Jersey Student Learning Standards.

In addition to the three-year college preparatory programs that include Algebra I, Geometry, and Algebra 2 with Trigonometry, the Mathematics department offers honors and advanced placement courses, courses for those who need additional support in mathematics, and multiple elective courses, including a four-year course sequence in Computer Science. While only three years of mathematics are required for graduation, the majority of our students take four.

The Mathematics department integrates technology in the classroom to enhance instruction and improve the learning experience for students at all levels.

Algebra I

Grade 9

The concepts presented in Algebra I courses are intended to extend and deepen the development of algebraic reasoning that began in middle school. These concepts include quantities and the relationships between them, linear, quadratic and exponential functions, expressions and equations, integer and rational exponents, and descriptive statistics. In addition to this content, students will regularly utilize the eight mathematical practices. These courses will prepare students for the Algebra I PARCC assessment.

Algebra I Enhanced

Prerequisite: A grade of ‘B-’ or higher in Pre-Algebra
Placement by recommendation of teacher and supervisor

In Algebra I Enhanced, students study some topics in greater depth, and the pace of the course will be faster than in Algebra I.

Algebra I

Prerequisite: A passing grade in Pre-Algebra

In Algebra I, students study the same concepts as in Algebra I Enhanced, but with a greater emphasis on mastering prerequisite skills and a slightly slower pace.
Geometry

The concepts presented in Geometry courses are intended to extend, deepen, and formalize the geometric reasoning that began in middle school. These concepts include analysis of rigid motion, proofs involving angles, line segments, triangles, and quadrilaterals, dilations and proportional reasoning, right triangle trigonometry, the law of sines and cosines, coordinate geometry, similarity, and three-dimensional reasoning. Formal proof will also be an important part of this course. In addition to this content, students will regularly utilize the eight mathematical practices. These courses will prepare students for the Geometry PARCC assessment.

Honors Geometry
Placement by recommendation of supervisor (based on 8th grade mathematics grades, placement exam and teacher recommendation rubric)
In addition to covering the material from Geometry and Geometry Enhanced, Honors Geometry addresses additional topics, more difficult proofs, and requires students to solve more challenging, non-routine problems. See the Mathematics Department website for a description of how students are selected for Honors Geometry.

Geometry Enhanced
Prerequisite: A grade of ‘C+’ or higher in Algebra I Enhanced or a ‘B+’ or higher in Algebra I
Placement by recommendation of teacher and supervisor
In Geometry Enhanced, students study some topics in greater depth, and the pace of the course will be faster than in Geometry.

Geometry
Prerequisite: A passing grade in Algebra I or Algebra I Enhanced
In Geometry, students study the same concepts as in Geometry Enhanced, but with a greater emphasis on mastering prerequisite skills and a slightly slower pace.

Algebra II with Trigonometry

Algebra II with Trigonometry extends students’ understanding of functions and function families to include polynomial, rational, radical, and trigonometric functions. In addition, students continue the work of modeling with mathematics, solving various types of equations, and simplifying different types of expressions. Concepts covered in this course include rational numbers and expressions, polynomial, rational, radical, trigonometric, and absolute value functions, transformations on graphs of functions, the unit circle, and probability distributions. In addition to this content, students will regularly utilize the eight mathematical practices. These courses will prepare students for the Algebra II with Trigonometry PARCC assessment.

Honors Algebra II with Trigonometry
Prerequisite: A grade of ‘B+’ or higher in Honors Geometry or a grade of ‘A’ or higher in Geometry Enhanced, and a grade of ‘A’ or higher in Algebra I Enhanced
Placement by recommendation of teacher and supervisor
In addition to covering the material from Algebra II with Trigonometry and Algebra II with Trigonometry Enhanced, Honors Algebra II with Trigonometry addresses additional topics and requires students to solve more challenging, non-routine problems. Graphing calculators are used regularly throughout this course.
Algebra II with Trigonometry Enhanced
Prerequisite: A grade of ‘C+’ or higher in Geometry Enhanced or a grade of ‘B+’ or higher in Geometry, and a grade of ‘C+’ or higher in Algebra I Enhanced or ‘B+’ or higher in Algebra I
Placement by recommendation of teacher and supervisor
In Algebra II with Trigonometry Enhanced, students study some topics in greater depth, and the pace of the course will be faster than in Algebra II with Trigonometry. Graphing calculators are used regularly throughout this course.

Algebra II with Trigonometry
Prerequisite: A passing grade in Geometry
In Algebra II with Trigonometry, students study the same concepts as in Algebra II with Trigonometry Enhanced, but with a greater emphasis on mastering prerequisite skills and a slightly slower pace. Graphing calculators are used regularly throughout this course.

Algebra II
Prerequisite: A passing grade in Geometry
In Algebra II, students solidify, strengthen, and extend their understanding of Algebra I and Geometry content. Successful completion of this course will enable students to successfully enroll in Algebra II with Trigonometry.

College Algebra
Prerequisite: Algebra II with Trigonometry or Algebra II with Trigonometry Enhanced
This half-year course provides students with a firm foundation on which to continue their study of mathematics in college. Topics will include algebraic operations, solutions of equations and inequalities, algebraic applications, functions, and trigonometry. This course will also emphasize techniques and skills to prepare students for the SATs, ACTs, and college placement exams.

Pre-Calculus
Honors Pre-Calculus
Prerequisite: A grade of ‘B+’ or higher in Honors Algebra II with Trigonometry, or a grade of ‘A’ or higher in Algebra II with Trigonometry Enhanced
Placement by recommendation of teacher and supervisor
Honors Pre-Calculus covers the same material as Pre-Calculus, but the course moves at a quicker pace and students will study many topics in greater depth. Students also begin their study of calculus in the fourth marking period. Graphing calculators are used regularly throughout this course.
Pre-Calculus
Prerequisite: A grade of ‘C+’ or higher in Algebra II with Trigonometry Enhanced or College Algebra
Placement by recommendation of teacher and supervisor
Pre-Calculus provides a firm foundation for study of mathematics at the college level. Students study more advanced functions, trigonometry, series and sequences, combinatorics, probability, and limits. After completing this course, students will be prepared to take Calculus either at the high school or college level. Graphing calculators are used regularly throughout this course.

Calculus

Advanced Placement Calculus BC
Prerequisite: A grade of ‘B+’ or higher in Honors Pre-Calculus
Placement by recommendation of teacher and supervisor
This full-year course investigates calculus from analytical, graphical, and numerical perspectives. The course builds on the function and limit theory introduced in Honors Pre-Calculus to fully develop the concept of the derivative and its applications. An investigation is then conducted into the concept of the integral, its use in solving differential equations, and its applications. The study of integration culminates in the discussion of improper integrals. Connections are made with power series, and students apply all the concepts covered in Cartesian, parametric, and polar forms. Many colleges grant credit based upon the student’s score on the College Entrance Examination Board’s Advanced Placement examination. Graphing calculators are used regularly throughout this course.

Advanced Placement Calculus AB
Prerequisite: A grade of ‘A’ or higher in Pre-Calculus, or a grade of ‘B-’ or higher in Honors Pre-Calculus
Placement by recommendation of teacher and supervisor
This full-year course covers all the material of Calculus in addition to a more in-depth study of integrals. Many colleges grant credit based upon the student’s score on the College Entrance Examination Board’s Advanced Placement examination. Graphing calculators are used regularly throughout this course.

Calculus
Prerequisite: A grade of ‘C+’ or higher in Pre-Calculus
This full-year course builds on students’ knowledge of functions and trigonometry to develop the concepts of calculus. Students will begin with a study of limit theory and use that to fully develop the concept of the derivative. Students will study the derivative from analytical, graphical, and numerical perspectives and investigate its applications. Students will then investigate the concept of the integral from multiple perspectives and learn various methods of antidifferentiation. Applications of the integral will also be studied. Graphing calculators are used regularly throughout this course.

Advanced Topics in Calculus (Honors)
Prerequisite: Successful completion of Advanced Placement Calculus BC
Placement by recommendation of teacher and supervisor
This full-year course will extend key ideas of one-variable calculus to functions with several variables. Topics will include the three-dimensional coordinate system, vectors, equations of lines, planes, cylinders, and quadric surfaces in three-dimensional space, vector functions and their applications to arc length, curvature, and motion in space, partial derivatives, multiple integrals, and theorems of vector calculus. Applications of these concepts will be a critical component of this course.
Statistics

**Statistics I**  
Prerequisite: Algebra II with Trigonometry or Algebra II with Trigonometry Enhanced  
This half-year course will prepare students to collect and analyze data for the purpose of making determinations on typical values and variation. Students will also learn to model data sets in order to draw conclusions and make predictions.

**Statistics II**  
Prerequisite: Statistics I and Algebra II with Trigonometry, or Algebra II with Trigonometry Enhanced  
Building on the concepts in Statistics I, this half-year course will enable students to compute probabilities and run simulations for situations where probabilities cannot be computed. Students will also learn how to utilize confidence intervals and hypothesis testing to determine whether a finding is statistically significant.

**Advanced Placement Statistics**  
Prerequisite: Algebra II with Trigonometry Enhanced with a grade of ‘B’ or higher  
Placement by recommendation of teacher and supervisor  
This is a full-year, non-calculus based statistics course that is typically required as part of a student’s work in engineering, sociology, psychology, health, the sciences, and business. The course will cover a) the exploratory analysis of data, b) the planning of a study, c) the production of models using probability theory and simulation, and d) the use of statistical inference. Heavy emphasis is placed on the use of graphing calculators and specialized software as problem-solving tools.

Discrete Math

**Discrete Math (Half-year course)**  
Prerequisite: Algebra II with Trigonometry  
This half-year course is designed to develop the quantitative reasoning skills that students will need for their daily lives and futures. The course will emphasize deep conceptual understanding of real world applications, and topics may include banking, taxes, loans, investments, and credit cards. Technology will be integrated throughout the curriculum, with a particular emphasis on Microsoft Excel.

**Discrete Math (Full-year course)**  
Prerequisite: Algebra II  
This full-year course will cover the same topics as the half-year version of Discrete Math but will provide additional time for students to master these topics. In addition, key algebraic concepts and skills will be solidified, strengthened, and extended.
Computer Science

Computer Science Principles
Co-requisite or Prerequisite: Algebra I or Algebra I Enhanced
This course satisfies the full year requirement for a practical art
Grades 9, 10, 11, 12

Computer Science Principles offers a multidisciplinary approach to the creative aspects of programming, abstractions, algorithms, large data sets, the Internet, cybersecurity concerns, and computing impacts. Computer Science Principles gives students the opportunity to use current technologies to create computational artifacts for both self-expression and problem solving, and it will enable students to build socially useful mobile apps using App Inventor, a mobile programming language for Android devices. Together, these aspects of the course make up a rigorous and rich curriculum that aims to broaden participation in computer science.

Honors Computer Science
Co-requisite or Prerequisite: Honors Algebra II with Trigonometry or Algebra II with Trigonometry Enhanced and a high level of interest in programming, or Computer Science Principles
Placement by recommendation of teacher and supervisor
This course satisfies the full year requirement for a practical art
Grades 10, 11, 12

In this full-year elective course students will learn the fundamentals of computer programming in Java, with an emphasis on the development of logical thinking and problem solving skills. This course emphasizes techniques of programming design, and it applies these concepts to problems that will demonstrate the power and functionality of the computer. Problems are selected from the areas of mathematics, elementary data processing, sorting, and simulations. The ability to work both independently and collaboratively to problem solve effectively are key components to be successful in this course. Some examples of programs that students will create include mad lib games, graphic drawings and games, jeopardy, and other useful real-world programs. In addition, students may have opportunities to use an open source microcontroller such as Arduino.

Advanced Placement Computer Science A
Prerequisite: Honors Computer Science
Placement by recommendation of teacher and supervisor
This course satisfies the full year requirement for a practical art
Grades 11, 12

The AP Computer Science A course is equivalent to a first-semester, college-level course in computer science. The course introduces students to computer science with fundamental topics that include problem solving, design strategies and methodologies, organization of data (data structures), approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. The course emphasizes object-oriented and imperative problem solving and design using the Java language. These techniques represent proven approaches for developing solutions that can scale up from small, simple problems to large, complex problems. The AP Computer Science A course curriculum is compatible with many CS1 courses in colleges and universities.

Not all courses may be offered to all students at all times.
Advanced Topics in Computer Science (Honors)
Prerequisite: Successful completion of Advanced Placement Computer Science A
Placement by recommendation of teacher and supervisor
This course satisfies the full year requirement for a practical art

Advanced Topics in Computer Science (Honors) requires a strong background in computer programming. It emphasizes problem solving, procedural and data abstraction, programming and design methodology, and algorithm analysis through a project-based approach. Topics may include programming in languages such as Javascript, Swift, or Python, microcontrollers such as Arduino, advanced data structures, and linear algebra, with consideration that the field of computer science is constantly evolving.

Math Lab Courses

Math Lab courses are required, remedial courses for students that do not meet minimum proficiencies. While these courses do not count towards the three years of mathematics required for graduation, full-year courses award 5 elective credits towards graduation, while half-year courses award 2.5. In addition to helping students develop skills in the four cluster areas of the PARCC, teachers provide support for students’ other math courses (i.e., Algebra, Geometry or Algebra II with Trigonometry).

SPECIAL MATHEMATICS PROGRAMS

Honors Program

The honors program is initially available to students who complete Algebra I in the eighth grade. Students who perform exceptionally well on a rubric that includes their Algebra I grade, a placement exam, and a teacher evaluation rubric will be eligible for Honors Geometry as a freshman.

Honors Geometry provides an intensified study of plane and solid geometry, as well as an investigation of the coordinate plane. Honors Algebra II with Trigonometry and Honors Pre-Calculus cover content at a faster pace and in greater depth, as well as additional topics like limits and basic derivatives. In the fourth year of the honors sequence, students will have the opportunity to enroll in an advanced placement calculus course.

There is also an opportunity for students to move into the Honors Program after the 9th grade, based on performance in current mathematics courses and teacher recommendation. Students can also be recommended for reassignment from the Honors sequence to college preparatory enhanced or college preparatory courses.

Honors students are strongly encouraged to broaden their math experiences by taking additional courses such as AP Statistics, Computer Science Principles, Honors Computer Science or AP Computer Science A.
Five-Year Program in Four (Doubling up in grade 10)

The Mathematics Department supports students who are considering careers that utilize advanced mathematics. Any ninth-grader considering these fields of study who completes Algebra I Enhanced with an A may be eligible to enroll in both Geometry Enhanced and Algebra II with Trigonometry Enhanced as a sophomore. The student must demonstrate intellectual curiosity, a willingness to engage in productive struggle, and personal initiative in order to be considered for the program. Both teacher and supervisor approval are required for a student to enroll in both courses.
SCIENCE DEPARTMENT

COURSE DESCRIPTIONS

The Science Curriculum in the Pascack Valley Regional High School District is designed to provide our students with the tools, skills, and resources necessary to become scientifically literate, 21st Century Learners. To that end, the science program in the Pascack Valley Regional High School District provides that our students will:

1. Become active learners who can work successfully in various problem solving situations both cooperatively and independently
2. Develop critical thinking and problem solving strategies
3. Apply and use technology to solve scientific problems
4. Read and critically interpret scientific information
5. Communicate scientific ideas both orally and in writing.

All science courses have a laboratory component, where students will investigate scientific principles and engage in the process of science to enhance their understanding of concepts learned.

Honors Courses
Placement by recommendation of teacher and supervisor

Any student enrolled in an honors class must maintain a minimum of a B average throughout the year in order to continue in the honors science sequence, unless given special permission by the supervisor. A student with exceptional performance evaluations in other science courses may be recommended for placement in honors courses as requested by the teacher and approved by the Supervisor. Enrollment in honors-level mathematics is highly recommended for success in Honors Chemistry and Honors Physics, as these courses extensively use mathematics as a tool, and students must have a great facility with applying mathematics to solve abstract, scientific problems.

Honors courses are offered in Biology, Chemistry, Physics, Research in Molecular Genetics and Forensics. These courses follow the general topic outline of the regular science offerings, but the depth and breadth of content is much greater than is found in the college preparatory courses. In all honors courses, students must not only master the material as presented, but also must be able to extrapolate and apply their knowledge to new situations within the discipline. Assignments involving independent research projects, critiques of current events in scientific research, and critical-thinking essays are all part of the curriculum throughout the year. Laboratory experiments are more intricate than those encountered by students in the regular courses, with special emphasis placed upon problem-solving techniques, data and error analysis, and the development of inferences and conclusions. Moreover, honors students are expected to show an interest in the world of science outside of the classroom.
Biology
Placement by the recommendation of supervisor
Based on 8th grade science grades, placement exam and teacher recommendation rubric
Grade 9
In this college preparatory course, students will investigate major biological concepts including biochemistry, cell processes, genetics, evolution and ecology. The course will consist of laboratory experiments, online activities, projects and other performance tasks that promote critical thinking, problem solving, and collaboration among students, and is designed to prepare students for the New Jersey Biology Competency Test.

Honors Biology
Placement by the recommendation of supervisor
Based on 8th grade science grades, placement exam and teacher recommendation rubric
Co-requisite: Honors Geometry or Geometry Enhanced
Grade 9
Honors Biology is designed for the highly motivated student with a strong interest in the field of science. It will follow approximately the same curriculum as college preparatory Biology, but in greater depth and rigor (see general description for honors courses listed above). The course will consist of laboratory investigations, online activities, projects and other performance tasks, and is designed to prepare students for the New Jersey Biology Competency Test. It requires excellent critical thinking, problem solving, reading comprehension, writing, and communication skills. This course is highly recommended for those wishing to take AP Biology.

Environmental Biology
Placement by the recommendation of supervisor
Based on 8th grade science grades, placement exam and teacher recommendation rubric
Grade 9
This is a college preparatory course that seeks to develop a student’s understanding and appreciation of major biological concepts including biochemistry, cell processes, genetics, evolution and ecology. The course will consist of laboratory investigations, online activities, projects and other performance tasks, and is designed to prepare students for the New Jersey Biology Competency Test.

Advanced Placement Biology
Placement by recommendation of teacher and supervisor
Prerequisite: A grade of ‘B’ or better in Honors Biology
Co-requisite or Prerequisite: Honors Chemistry, Honors Physics
Grades 10, 11, 12
This course is equivalent to an introductory college course in biology. Major points of emphasis are molecular biology, biotechnology, energy transfer, cells, ecology, biochemistry, botany, anatomy and physiology, genetics, and microbiology. There is extensive laboratory work, plus readings outside of class focusing on biological issues. All students will take the AP Exam in May and some colleges and universities may award credit based upon the student’s score on the Advanced Placement Examination.

Not all courses may be offered to all students at all times.
Chemistry
Placement by recommendation of teacher and supervisor
Prerequisite: Biology
Co-requisite: Geometry Enhanced or Honors Geometry
This college preparatory course is designed to develop an understanding of the nature of matter and of the natural laws that govern it. This laboratory science focuses on: 1) matter and energy; 2) atomic structure, bonding, and the periodic table; 3) the mathematics of chemistry; 4) writing and balancing chemical equations and predicting products chemical equations; 5) investigation and application of the gas laws; 6) nuclear chemistry; and 7) thermodynamics.

Honors Chemistry
Placement by recommendation of teacher and supervisor
Prerequisite: Honors Biology
Co-requisite: Honors Algebra II with Trigonometry or Algebra II with Trigonometry Enhanced Grade 10
Honors Chemistry will follow approximately the same curriculum as Chemistry, but in greater depth and rigor, (see general description for honors courses listed above). In addition to the topics covered in Chemistry, this honors course will also investigate 1) acids and bases; 2) kinetics and equilibrium; 3) oxidation/reduction reactions; and 4) electrochemistry.

Chemistry in the Community (ChemCom)
Placement by recommendation of teacher and supervisor
Prerequisite: Environmental Biology
Co-requisite: Geometry
This college preparatory course, developed by the American Chemical Society and endorsed by the National Science Foundation, is designed to develop chemistry concepts and enhance science literacy by emphasizing chemistry’s impact on society. ChemCom focuses on chemistry-related technological issues currently confronting the world in which we live. Each current-events issue serves as a basis for introducing the chemistry needed to understand and analyze it. ChemCom incorporates extensive laboratory and student-centered activities. This science course is designed for students who need a more concrete learning environment and provides the opportunity to reinforce reading, writing, math, and organizational skills.

Advanced Placement Chemistry
Placement by recommendation of teacher and supervisor
Prerequisite: A grade of ‘B’ or better in Honors Chemistry
Co-requisite or prerequisite: Honors Physics/AP Physics I Grades 11, 12
This course is comparable to an introductory course in chemistry on the college level. Students study the following topics: 1) the structure and states of matter, 2) chemical bonding; 3) thermodynamics; 4) chemical reactions; 5) solutions; 6) kinetics; 7) acids and bases; 8) redox; and 9) equilibrium. The materials covered, both in class and in laboratory work, stress how to use basic principles to answer seemingly complex questions. All students will take the AP Exam in May and some colleges and universities may award credit based upon the student’s score on Advanced Placement Examination.

Physics
Placement by recommendation of teacher and supervisor
Prerequisite: Chemistry
Co-requisite: Algebra II with Trigonometry Enhanced or Honors Algebra II with Trigonometry Grade 11
In this course, students will investigate the physical world and the universe in a problem-based learning format through the study of the following topics: mechanics, electricity, magnetism, light, sound and optics. Mathematics is used extensively to study and apply basic physics concepts and principles to theoretical problems, laboratory work, and student projects.
**Conceptual Physics**
*Placement by recommendation of teacher and supervisor*
*Prerequisite: ChemCom*
*Co-requisite: Algebra II with Trigonometry*

In this course, students will develop a conceptual understanding of physics principles as they investigate solutions to physics problems. This course emphasizes the understanding of the world and the universe through a study of the following topics: mechanics, electricity and magnetism, light and sound and optics.

**Honors Physics/Advanced Placement Physics I**
*Placement by recommendation of teacher and supervisor*
*Prerequisite: Honors Chemistry*
*Co-requisite: Honors Pre-Calculus or Pre-Calculus or Calculus*

This course is equivalent to an introductory college course in non-calculus based physics and is designed to prepare the student for the AP Physics 1 exam. This course is designed to be equivalent to physics courses required for students majoring in the life sciences, pre-medicine, and other applied science fields. It will also prepare engineering and physical science majors for their freshmen, calculus-based physics courses. Students explore principles of Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits. A student may elect to take the AP Exam in May to earn the AP designation on their transcript and some colleges and universities may award credit based upon the student's score on Advanced Placement Examination.

**Physics and Technology**
*Placement by recommendation of teacher and supervisor*
*Prerequisite: Chemistry or ChemCom*
*Co-requisite: Algebra II with Trigonometry/Enhanced or Honors Algebra II with Trigonometry*

Physics and Technology is a full-year, ten-credit course, taught by a physics instructor and a technology instructor. The course is designed to emphasize physical concepts that are applicable to technology, and to incorporate these concepts into working technological prototypes. The course will encompass theory, practice, and the real-world application of knowledge gained in physics that leads to creative problem solving in technology. The course will explain how the physical universe functions and will use that information to solve problems dealing with our ever-changing environment.

**Advanced Placement Physics II**
*Placement by recommendation of teacher and supervisor*
*Prerequisite: Grade of 'B' or better in Honors Physics/AP Physics I*

This course is equivalent to an introductory college course in non-calculus based physics and is designed to prepare the student for the AP Physics 2 exam. Students explore principles of fluids, thermodynamics, electricity, magnetism, optics, and topics in modern physics. There is extensive laboratory work, plus readings outside of class focusing on physics-related issues. This course is designed to be equivalent to physics courses required for students majoring in the life sciences, pre-medicine, and other applied science fields. It will also prepare engineering and physical science majors for their freshmen, calculus-based physics courses. All students will take the AP Exam in May and some colleges and universities may award credit based upon the student's score on Advanced Placement Examination.

*Not all courses may be offered to all students at all times.*
Advanced Placement Physics C
Placement by recommendation of teacher and supervisor
Prerequisite: Grade of ‘B’ or better in Honors Physics/AP Physics I

This course is equivalent to an introductory college course in calculus-based physics and is designed to prepare the student for the AP Physics C exam. Students explore principles of mechanics and electricity and magnetism. There is extensive laboratory work, plus readings outside of class focusing on physics-related issues. This course is designed to be equivalent to physics courses required for students majoring in engineering, pre-medicine, and other applied science fields. All students will take the AP Physics C Exam (Mechanics and/or Electricity and Magnetism) in May and some colleges and universities may award credit based upon the student’s score on Advanced Placement Examination.

Science, Ethics, Technology and Society
Full-year elective

In this course, students will examine controversial/ethical issues and advances in technology over time, and their impact on the way we live and the way our society is structured. Sample topics to be explored in the course include advances in science and technology through the ages, stem cell research, animal and human experimentation, science and politics, genetic engineering, organ/tissue donation, and various other current and powerful topics found at the intersection of science, technology and society. This course would be beneficial for any student that is interested in pursuing a career in the sciences, medicine, law or politics. Students will be expected to complete independent readings, participate in classroom debates, and compose opinion pieces regarding the various topics discussed in class.

Forensic Science - Syracuse University
Full-year elective & 4 college credits
Placement by recommendation of teacher and supervisor
Prerequisite: Biology, Chemistry, Physics

Forensic Science is focused upon the application of scientific methods and techniques to crime and law. This course is intended to provide an introduction to understanding the science behind crime detection. Scientific methods specifically relevant to crime detection and analysis will be presented with emphasis placed upon the techniques used in evaluating physical evidence. Topics included are blood analysis, organic and inorganic evidence analysis, microscopic investigations, hair analysis, DNA, drug chemistry and toxicology, fiber comparisons, paints, glass compositions and fragmentation, fingerprints, soil comparisons, and arson investigation, among others. Laboratory exercises will include techniques commonly employed in forensics investigations. Laboratory experiences are embed in the curriculum and will take place during the regularly scheduled class periods.

Syracuse University Project Advance is a cooperative program between Syracuse University and the Pascack Valley Regional School district that allows high school seniors to enroll in a freshman-level college course. The course enables students to gauge their abilities to do college work in an introductory freshman-level course prior to full-time college study. Students who register for the four college credits and successfully complete the course are entitled to a regular Syracuse University transcript recording the credits earned, which have the potential to transfer to the college they attend after high school. In order to receive the college credit, students must pay a significantly reduced, per credit fee to Syracuse University. Students will also receive honors credit on their high school transcript.

Not all courses may be offered to all students at all times.
**Research in Molecular Genetics I**
Full-year elective
Placement by recommendation of teacher and supervisor
Prerequisite: Honors Biology or a grade of A- or better in Biology
Co-requisite: Grades 10 & 11: Chemistry or Physics

This is an honors-level advanced research program that is formulated to reflect the skills, behaviors, techniques, and proficiencies necessary for conducting authentic science research. Students will learn how to analyze and interpret experimental data generated in class and by other researchers. The ultimate goal is for students to experience how science is conducted by participating in the Waksman Research Institute investigations and independent research to be presented at science fairs and an annual district science symposium. Students will receive honors credit. Laboratory experiences are embed in the curriculum and will take place during the regularly scheduled class periods.

**Research in Molecular Genetics II and III**
Full-year elective
Placement by recommendation of teacher and supervisor
Prerequisite: Research in Molecular Genetics I and Research in Molecular Genetics II for RMG III
Co-requisite: Grade 11: Physics

This is an honors-level advanced research program that is designed to allow students to continue with their authentic research. The authentic research experience will require students to work closely with an expert or mentor in the particular field of research. Students will receive honors credit.

**Anatomy and Physiology**
Full-year elective
Prerequisite: Biology or Honors Biology
Co-requisite: Grades 10 & 11: Chemistry or Physics

Anatomy and Physiology is a college preparatory level, laboratory course focusing on the major organ systems of various species in both healthy and diseased states. This course will rely on live and computer-based virtual dissections to supplement student learning. As part of each unit studied, cooperative learning groups will research and present case-based medical scenarios, utilizing a variety of multimedia applications. Anatomy and Physiology will prepare students who are interested in a future in medicine, dentistry, nursing, optometry, physical therapy, occupational therapy, veterinary science and other medical-related fields.

**Astronomy**
Half-year elective
Co-requisite: Grades 10 & 11: Chemistry or Physics Course

This semester-long science elective will be a descriptive survey of key topics in astronomy. This course will investigate the history of modern astronomy, discussing astronomy-related technologies of ancient civilizations and progressing to modern astronomical observatories and telescopes. The basic scientific principles and theories behind the following topics will be discussed: astronomical instrumentation; fundamental theories of cosmology; the lifecycle of stars; constellations; lunar and planetary sciences. This course is open to all students interested in further exploring astronomy. Laboratory experiences are embed in the curriculum and will take place during the regularly scheduled class periods.
Environmental Studies
Full-year elective
Co-requisite: Grades 10 & 11: Chemistry or Physics course
Grades: 10, 11, 12

Environmental Studies is a course designed to study the widespread impact humans have on our environment. The course is divided into 4 units: water, food, energy, and action. Students will apply the skills and knowledge from previous learning in the three core scientific courses biology, chemistry, and physics. Topics will include: local watersheds and water resources, sources of energy, food production and sustainability, and local, national, and global environmental policy. An example of a project: students will use GPS/GIS land technologies to map out local environmental areas of concern in order to design solutions that can be implemented to help preserve valuable resources. The course will include case studies, service learning, and project-based activities. Students will utilize technology to collect, analyze, and exchange data with students from other countries. They will also be expected to research and defend points of view.

Earth's Natural Disasters
Half-year elective
Co-requisite: Grades 10 & 11: Chemistry or Physics course
Grades: 10, 11, 12

This semester-long science elective will be a descriptive survey of key natural disasters. This course will investigate destructive forces involved in geology, meteorology and geography. Topics will examine the natural as well as the human consequences of earthquakes, volcanic eruptions, tornadoes, hurricanes, wildfires, meteor impacts and other natural events. Current natural disasters will be tracked using the internet. This course is open to all students interested in further exploring Earth’s Natural Disasters. Laboratory experiences are embed in the curriculum and will take place during the regularly scheduled class periods.

Advanced Placement Environmental Science
Full-year elective
Prerequisite: Chemistry or Honors Chemistry
Co-requisite: Grade 11: Physics or Honors Physics/AP Physics I
Grades: 11, 12

The Advanced Placement Environmental Science course is designed to be the equivalent of a one-semester, introductory college course in environmental science, through which students engage with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world. The course requires that students identify and analyze natural and human-made environmental problems, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving or preventing them. Environmental Science is interdisciplinary, embracing topics from geology, biology, environmental studies, environmental science, chemistry, and geography. The topics studied include: Earth Systems and Resources, the Living World, Population, Land and Water Use, Energy Resources and Consumption, Pollution and Global Change. The Advanced Placement Environmental Science course includes a laboratory and field investigation component.
The mission of the Pascack Valley Regional High School District World Language Department is to prepare students for confident, meaningful interactions with people around the world in the target language. It allows the learners to compare their language and culture to that of others while making connections with other disciplines and current world events within our increasingly interconnected world.

World language course offerings in the Pascack Valley Regional High School District include Chinese, French, Italian and Spanish. Four-year world language sequences are available in Chinese, French, Italian, and Spanish.

Current studies indicate that at least three and preferably four years of one language are highly desirable at the high school level. Usually colleges request at least two years of study of one language to meet entrance requirements. Students entering grade 9 will be required to take two years of a world language in order to meet high school graduation requirements.

The method of instruction is a proficiency-based communicative approach, integrating interpersonal, interpretive, and presentational skills. It involves meaningful use of language for “real” communicative purposes. Students will acquire a measurable degree of proficiency within the interpersonal, presentational and interpretive modes.

As part of our on-going inter-district cooperation, efforts are made to continue world language study initiated in the middle schools. Students may be recommended to continue their language study in either our college prep program or honors program. Admission to the Honors Program is based upon a self-nomination process developed jointly by the Pascack Valley Regional High School District and the sending school world language teachers.

**English as a Second Language**

*Grades 9, 10, 11, 12*

English as a Second Language (ESL) is a special course designed to teach English to students whose native language is one other than English. As in learning any of the world languages taught in the Pascack Valley Regional High School District, the method of instruction is a communicative approach emphasizing the four basic communication skills: (1) listening and understanding; (2) speaking; (3) reading; and (4) writing. Students receive English credit for satisfactory work in this course.

**Chinese I, French I, Italian I and Spanish I**

*Grades 9, 10, 11, 12*

This course is designed for novice students who begin without knowledge of the target language. The emphasis of the course is on real life communication. Students will be given the opportunity to acquire and interact in the language, as it is spoken and written in the target culture. From the beginning, students will compare and contrast the target language and culture with their own, thus developing insights into the nature of language and culture.
Spanish for Heritage Speakers I & II

Spanish for Heritage Speakers I & II are proficiency-based courses which involve meaningful use of language for real communicative purposes. Instruction focuses on what students can do with the language and build upon their L1 literacy skills specifically in reading & writing. This track for incoming students is accelerated due to the intended purpose of taking AP Spanish Language & Culture and AP Spanish Literature & Culture in their third and fourth years in high school.

Chinese II, French II, Italian II and Spanish II

At Language II levels, communication skills are reinforced and further developed. There is an additional concentration on reading and writing. Also included are studies of vocabulary and idiom development, as well as some study of the history and culture of the country (countries) whose language is being studied. In cooperation with sending districts that have appropriately articulated programs, sequential work for qualified ninth grade students is considered at this level.

Honors Chinese, French, Italian, Spanish – II, III, and IV

Placement by recommendation of teacher and supervisor

The honors program is designed for students who demonstrate a high level of ability in oral and written expression, and who are motivated to achieve an advanced level of proficiency. In the honors program, students will be expected to achieve a strong command of the target language, which includes accurate usage of target structures and extensive application of vocabulary and idiomatic expressions. Students enrolled in the Honors Chinese classes will be expected to increase their accuracy with their interpretation of Chinese characters. Students will be recommended for continuation in the Honors Program by their teacher upon the successful completion of their current course.

Chinese III, French III, Italian III and Spanish III

At Language III levels, there is increased reinforcement and development of communication skills already introduced in Levels I and II. Additional emphasis is placed on the ongoing development of reading and writing skills, as well as more in depth presentations of target structures, vocabulary, and idioms. Students are carefully guided through cultural and historical activities through increased student active usage of the world language under study. Major emphasis is placed upon learning and using the target language in a cultural context.

Chinese IV and V, French IV and V, Italian IV and V, and Spanish IV and V

At upper levels, the goals are essentially similar to those of Level III, although a rather high level of ability in the language is expected. In addition to continued emphasis on communication skills, there is an introduction to authentic literature in the language being studied. Review of previously taught linguistic structures, oral recitation, extensive vocabulary and idiom development, and composition are included. Also considered are the contributions of the world county, prominent personalities, government, current events, the arts, music, values, and character traits of the world nation and regions.

Not all courses may be offered to all students at all times.
Advanced Placement Language & Culture (French/Italian/Spanish)
Prerequisite: Honors language sequence, recommendation of teacher and supervisor  Grades 11, 12
An Advanced Placement course is one that may be accepted for college credit at a number of participating colleges and universities upon the student’s successful completion of the College Entrance Examination Board’s Advanced Placement Examination. This could enable students to start their college work in a world language at a more advanced level or to broaden their college experience by pursuing courses in areas that might not otherwise fit into their programs of study. Students are strongly encouraged to take the Advanced Placement Examination.

The purpose of the French/Italian/Spanish Advanced Placement program is to further develop advanced proficiency in the 2nd language for students. The major emphasis of the course will be the development of speaking and listening skills, with further emphasis on the students’ ability to read and write. Students as effective communicators will use the language to engage in meaningful conversation to understand and interpret spoken language and written text, and to present information, concepts, and ideas.

Advanced Placement Literature (Spanish)
Prerequisite: AP Spanish Language & Culture, recommendation of teacher and supervisor  Grade 12
This course is designed to provide students with a learning experience equivalent to that of an introductory college course in literature written in Spanish. The course introduces students to the formal study of a representative body of texts from Peninsular Spanish, Latin American, and U.S. Hispanic literature. The course provides opportunities for students to demonstrate their proficiency in Spanish across the three modes of communication (interpersonal, interpretive, and presentational) and the five goal areas (communication, cultures, connections, comparisons, and communities) outlined in the Standards for Foreign Language Learning in the 21st Century. The overarching aims of the course are to provide students with ongoing and varied opportunities to further develop their proficiencies across the full range of language skills — with special attention to critical reading and analytical writing — and to encourage them to reflect on the many voices and cultures included in a rich and diverse body of literature written in Spanish.
ARTS DEPARTMENT

COURSE DESCRIPTIONS

The arts are deeply embedded in our daily lives - sometimes so deeply or subtly that we are often unaware of their presence. Regardless of our paths in life, there is a time when we are moved by a painting or dramatic performance, are thrilled by a musical performance, make careful choices regarding our home decorations, or sing a simple song to our child. Art enriches us by adding fullness to our lives and helps define who we are. It gives us all a chance to express the inexpressible. The arts are an inseparable part of the human journey and are intertwined in our everyday lives.

Course work in the Arts Department challenges students to think creatively, solve problems where there are no standard answers, express themselves in a variety of forms, witness the power of the arts in our lives, and work as individuals or as part of a group. The programs are designed to help students in their continued discovery of who they are and to help them learn to adapt to and respect others and their work. The Fine Arts Department is rooted in visual/aesthetic knowledge, and hands-on technical skills in the areas of painting, drawing, sculpture, design, photography, and ceramics. With these experiences as a basis, students can select course work in any area of the department throughout their high school years. All of our courses are elective in nature and some are available in two and three year sequences. Study in the arts is important to life and learning.

The Arts Department provides students with opportunities in the areas of art, family and consumer sciences, music, and technology. The Arts Department is proud to offer the studies outlined on the following pages.

**Studio Art I**

Grades 9, 10, 11, 12

Studio Art I is an entry-level course in visual communication where students can explore various media and techniques for self-expression. Students will engage in a variety of visual problem-solving experiences and skills such as: drawing, painting, printmaking, sculpture and mixed media. Projects will have a strong focus on the elements and principles of art and design. In addition to art production, students will be introduced to art history, art criticism and aesthetics.

**Honors Advanced Studio Art II**

Prerequisite: Studio Art I or Teacher Approved Portfolio

Grades 10, 11, 12

Studio Art II is an extension of Studio Art I. Student work will be expanded to deal with visual problems and personal interpretations. The work will focus on the refinement of technical skills in the areas of drawing, painting, printmaking and mixed media. This is a “portfolio preparation” course for the development of personal, college, and/or Advanced Placement Art in Drawing or 2-Dimensional Design portfolio.
**Ceramics & Sculpture I**

Students who like to work with their hands will enjoy this opportunity to design with plaster, wood, clay and mixed media. Students will learn the secrets and strategies used by artists over the centuries. They will use pinch, coil and slab methods and become familiar with using the potter’s wheel as well as learning methods in wood, plaster and stone. Students will learn the many different ways of working in three dimensional art.

**Honors Advanced Ceramics & Sculpture II**

Prerequisite: Ceramics & Sculpture I, and teacher approved portfolio/recommendation

The purpose of this class is to prepare students for self-directed advanced studio work in clay and mixed media sculpture materials. Students will be prepared to work in a personal studio career, or continued education in ceramics.

Students will work on developing technical skills (materials and processes appropriate to their concepts), aesthetic sensibilities (including the use of historic and contemporary references in ceramics and other arts, criticism, expression of personal concepts in works). This class is intended to build on the basic information from prior hand building, throwing, vessel, and ceramic sculpture classes.

**Photography I**

This is an introductory studio course in which the student becomes familiar with the fundamentals of photography. Students look at their world as it is composed through the lens of the camera. Students will learn how to use the creative controls of the camera to better express themselves visually. Students will gain experience using digital-editing tools such as Adobe Photoshop, as they become aware of commercial and fine art applications of digital imaging. Basic design principles are studied in relation to photography. Special projects may involve the operation of film cameras, exposing, and developing black and white film, making contact prints, and enlarging and finishing the final print.
Honors Advanced Photography II*
Prerequisite: Successful completion of Photography I and teacher recommendation

This course is designed for students who have successfully completed the introductory photography course. The student will have the opportunity to apply previously learned techniques and procedures to more in-depth photographic study. Students will deal with concept oriented assignments, experiment with more advanced techniques and processes, and do in-depth study into the work of past and contemporary noted photographers. A considerable emphasis is also placed on using digital photography and specialized software to enhance or otherwise modify traditional black and white photographs and digital photos. Students will use the study of historic and contemporary photos as inspirations for their own work. They also will gain knowledge of the impact of digital images on culture, the course of history, and their own lives. This course is recommended for the more serious photography student who has the desire to utilize the art of photography as a means for self-expression. The student must also have the time and inclination to shoot their own images not just during class time, but after school hours and off-campus as well. It is recommended that students own their own digital camera.

*This course may be repeated for AP credit and a third year of coursework in photography as AP Studio-Art: 2D Design. Must have approval of teacher and supervisor and follow successful completion of Honors Advanced Photography II.

11th and 12th Grade students enrolled in Honors Advanced Studio Art II, Honors Advanced Ceramics and Sculpture II, and Honors Advanced Photography II have the option of enrolling in dual enrollment programs with Fairleigh Dickinson University or William Paterson University for an additional fee. Please note that dual enrollment is not required; students will receive honors credit whether or not they elect to register for college credit.

The Art Department offers two AP (Advanced Placement) courses. An Advanced Placement course is one that may be accepted for college credit at a number of participating colleges and universities upon the student’s successful completion of the College Entrance Examination Board’s Advanced Placement Examination or accepted portfolio. This could enable students to start their college work in art at a more advanced level or to broaden their college experience by pursuing courses in areas that might not otherwise fit into their program of study.

AP Studio-Art: Drawing and AP Studio-Art: 2D-Design, 3D-Design
Prerequisite: Drawing, Communication Design, 2D-3D Design, Ceramics or Fine Arts and teacher recommendation

These AP Studio Art courses are designed for students who are seriously interested in the practical experience of art. AP Studio Art students are not assessed on a written examination; instead, students submit portfolios for evaluation to the College Board and the Advanced Placement Program. Students may choose one of the following courses:

AP Studio-Art: Drawing
For this course, students focus on mastering the art of drawing through a wide range of experiences, including: drawing techniques, use of drawing media, subject matter and the development of a personal approach to art making. In addition to traditional approaches to drawing, media such as painting, printmaking, and mixed media can be explored and included in this portfolio.

Not all courses may be offered to all students at all times.
AP Studio-Art: 2D-Design
In this course, students will focus on work in a variety of media: drawing, painting, printmaking, photography, craft, and digital imaging, (all 2-dimensional art activities). The course is designed to guide each student’s growth and personal development in the visual arts. Using a range of approaches to art making, the student will be able to incorporate skills and techniques that reflect a study of 2-dimensional art that spans personal, cultural, philosophical and historical viewpoints.

AP Studio Art: 3D-Design
This course will investigate styles, techniques and historical movements in sculpture and is designed as an intensive one year program that challenges students’ creativity and design skills. The course enables students to develop a body of work that investigates strong underlying visual ideas in 3D design. Students will be able to explore and enhance their problem solving and artistic techniques by completion of various 3D projects. Students will create and submit a portfolio consisting of 30 pieces as they complete the 3D design requirement as delineated by the AP Studio Art program.

Advanced Placement Art History
Placement by recommendation of previous English teacher and supervisor Grades 11, 12
The AP Art History course is designed to introduce students to the nature of art, its function and meaning, art making processes, interpretation and responses to art. Through the investigation of diverse artistic traditions of cultures from prehistory to the present, this course fosters in-depth understanding of the history of art from a global perspective. Students learn and apply skills of visual, contextual, and comparative analysis to engage with a variety of art forms. Through research, discussion, reading and writing about art, students will be able to construct an understanding of individual works as well as the interconnections of art-making processes and products throughout history. Students who have succeeded in other humanities studies, such as history and literature are especially encouraged to enroll. This course is not designed exclusively for future art majors, and it does not require prior art training. However, a high degree of commitment to college-level academic standards is required. Students are strongly encouraged to take the Advanced Placement Examination.

Not all courses may be offered to all students at all times.
BUSINESS EDUCATION DEPARTMENT

COURSE DESCRIPTIONS

The Business Education program of the Pascack Valley Regional High School District consists of courses which provide students with experiences in both professional business applications and personal problem-solving skills that are necessary to meet the challenges of the future.

Financial Literacy
Half-year graduation requirement Grades 9, 10, 11, 12
Decisions about how to spend and invest money are lifelong skills and very important to our financial future. This course is designed to develop personal strategies in banking, credit, investing, buying or leasing an automobile, buying insurance, purchasing a house and planning for a major event. Through the use of the Internet, students will connect the concepts they learn in the course with the fast-paced, information-based world they live in. Simulations use real-world scenarios that allow students to apply course content in making decisions related to individual or family finances.

Financial Literacy (Hybrid)
Half-year graduation requirement Grades 10, 11, 12
The Hybrid Financial Literacy course option is a hybrid of the PVRHSD Financial Literacy course. The program includes the same core material as the brick and mortar option but with limited teacher/student contact. At the end of the course, students must successfully complete a PVRHSD final assessment given by the business department to receive a grade – Pass/Fail. The online course will be completed during a set time schedule as prescribed by the hybrid course teacher and all elements/assignments must be completed before the final assessment is attempted.

Principles of Business
Half-year elective Grades 9, 10, 11, 12
The world of business is a dynamic environment where the only constant is an ever-changing global landscape. Business persons need to be skilled in dealing with diversity, promoting ethics and social responsibility, sustaining customer relationships, understanding the impact of government regulation on business, finance and accounting, marketing and the importance of e-commerce. Principles of Business is an introductory course designed to provide a broad overview of the functions of the business entity. Topics covered include entrepreneurship, human resource management, marketing, finance, information systems, global competition and challenges of a business career. Both theory and practice will be addressed. Through this course, students will identify the principles of the American enterprise system and its impact on a global marketplace, understand the nature of management and the dimensions of marketing strategy, and be able to describe the steps necessary when starting and growing a business.

http://englishbookgeorgia.com/blogegb/6-business-skills-every-entrepreneur-should-have/

Not all courses may be offered to all students at all times.
Entrepreneurship
Full-year elective
Grades 9, 10, 11, 12
Using various entrepreneurial models, the students work as team members in a simulated business environment within the high school setting. The course is designed to familiarize students with the world of small business, and analyze the personal strengths and weaknesses of individuals relative to launching a career in entrepreneurship. Attention is given to planning, financing, starting and managing a business. Students have the opportunity to perform numerous business functions (i.e., purchasing, accounting, marketing, human resources) as a simulated company transacts business in a mock setting. Students are involved in decision-making, critical thinking, and team activities. Although not required, students should have some business knowledge to see success in this course.

Marketing
Half-year elective
Grades 9, 10, 11, 12
The Marketing Course focuses on concepts in effectively marketing goods and services to customers from a domestic and global perspective. The course includes market research, identifying target customers, developing product offers, branding, pricing, marketing communications and distribution. Marketing is critically examined from the perspective of the consumer, economy, technology, legal/political issues and ethical/social responsibility.

Career Exploration (Internship)
Available 2-3 periods in the afternoon schedule
Recommended by Guidance Counselor Grade 12
The Internship Program/ Senior Experience is an interactive learning partnership through which students increase, in depth and scope, their knowledge and abilities in a select area of study under the guidance of the internship coordinator, a job coach as well as a mentor on their internship site.

The success of each student is based on that individual actively participating in an area of interest that they wish to pursue as a possible career post high school. Different mentors approach this in different ways. Some mentors prepare a special project specifically designed for the student to develop his/her skills. Others bring the student into an ongoing project that may require the student to either work in collaboration with other colleagues or to work independently on one aspect of the project, which the student is capable of undertaking with minimal supervision. In general, internships in the business community include the intern’s participation in professionally related activities. The internship may be in any discipline or involve any profession; however, it is mandatory that the student be an active participant in activities related to the field of study. Students are placed on non-paid internships in the community for 2-3 periods a day. These internships match the student’s career plan that is developed in the course component. Exploration of postsecondary colleges and training programs are also explored to assure a successful transition from High School to the Adult Community.

Honors Teacher Cadet Program
Full-year elective
Grade 12
The Center for Educator Recruitment, Retention, and Advancement’s (CERRA) nationally-recognized Teacher Cadet Program is an innovative, curriculum-based college level course designed to attract talented young people to the education profession through a challenging introduction to teaching. The Teacher Cadet Program seeks to provide high school students insight into the nature of teaching, the problems of schooling, and the critical issues affecting the quality of education in America’s schools. This honors-level course requires a GPA of 3.0. Information on the application process is available in Guidance and requires an interview, application and essay.

Not all courses may be offered to all students at all times.
The Pascack Valley School District Family and Consumer Science Program engages students in challenging activities to further develop knowledge, skills, practices, attitudes, and behaviors, that will prepare them for future life experiences. Students are taught in a hands-on experiential learning environment by taking responsibility for their active participation in real life laboratory settings, which allows for repeated practice, application of skills, and knowledge.

**21st Century Life Skills**  
**Half-year elective**  
**Grades 9, 10, 11, 12**  
This course will cover techniques in nutritional planning and food preparation and basic clothing design and construction, as well as investigating the relationship dynamics of family living. This course will utilize a variety of educational experiences, such as individual projects, group work, and hands-on activities.

**Culinary Arts I**  
**Grades 9, 10, 11, 12**  
Basic food preparation skills and techniques will be developed and applied to real life situations. Food choices are influenced by such factors as available resources, family customs, cultural traditions, religious customs, friends, advertising, and current trends and lifestyles. Through the development of critical thinking and problem solving, students will be asked to develop independent living skills through selecting, planning, and preparing nutritious meals. Students will participate in a variety of laboratory experiences as well as written and performance activities.

**Culinary Arts II**  
**Prerequisite: Culinary Arts I**  
**Grades 10, 11, 12**  
This laboratory course is open to those students interested in learning advanced techniques of food preparation. Emphasis is placed on critically evaluating one's work, understanding reasons for success and failure, food presentation, and recipe development. Quantity food preparation, the study of international foods, and current trends in the culinary field are also part of the program.

**Clothing Construction**  
**Grades 9, 10, 11, 12**  
This course is designed for students interested in learning how to construct their own garments. The elements and principles of design are utilized in selecting and constructing attractive fashions. The students learn how to care for and use various types of sewing equipment, including the sewing machine. This course is an excellent "first" course for those students who may find an interest in fashion designing, fashion retailing, fashion merchandising, and garment construction.

**Advanced Clothing Construction**  
**Prerequisite: Clothing Construction**  
**Grades 10, 11, 12**  
Students interested in learning advanced clothing construction techniques will find this course desirable. Changing commercial patterns and/or working from one's original design are part of the program. A basic knowledge of sewing is necessary.
Fashion Design

This course presents an overview of the historical development of fashion as it is related to current design. Students will develop the skill of drawing the figure, designing for specific figure variations, coordinating accessory design, and studying fashion trends in textiles. Students have the opportunity to design and construct complete outfits from drawing to finished product by the end of the year. Knowledge of clothing construction will be helpful.

Advanced Fashion Design

Prerequisite: Fashion Design

This course is designed for students who wish to further their depth of knowledge and skills in the fashion areas. The elements of design are emphasized and transferred into flat pattern or draping and the creation of a finished garment. Special fabrics and advanced construction techniques will be emphasized. Students will develop a professional portfolio to be used for entrance requirements to schools.

Interior Design

This course is designed for students who are interested in learning the fundamental elements and principles of design related to housing and Interior Design. Elements and principles of design, apartment living, housing styles, evaluating floor plans, financial considerations related to housing, furniture styles, and physical treatments of rooms are some of the areas studied.

Following the decision-making process, students learn to be educated consumers in the areas of housing and home furnishings. Each student is responsible for designing and decorating an original apartment floor plan.

Early Childhood and Family Education I

This course is designed to help prepare students for the role of parent and to acquire skills for entry-level positions in childcare related careers. All students will participate in our on-site preschool, which operates three days a week, from October through May. Students will be introduced to the study of child development during the first semester and contemporary issues affecting today’s families during the second semester.

Topics include the social, emotional, intellectual, and physical development of the preschool child, learning activities in the preschool curriculum, behavior and discipline, the roles of the high school student in the preschool setting, communication skills, the family in today’s society, adolescence, and parenting.
Early Childhood and Family Education II
Prerequisite: Early Childhood and Family Education I Grades 11, 12
Early Childhood and Family Education II is an advanced course designed and recommended for the student who is interested in the field of Early Childhood Education, Psychology, Special Education, Social Work, and other related careers. Topics include curriculum areas in preschool education, planning developmentally appropriate learning activities for the preschool child, theories of child development, the legal rights of children, child abuse and roles in marriage. Students will take an active role in the planning, organizing and operation of the on-site preschool. This is a hands-on experience, which is continued from their participation in Early Childhood and Family Education I. This course is student-centered and project based.

Early Childhood and Family Education III
Prerequisite: Early Childhood and Family Education II Grade 12
Early Childhood and Family Education III is designed for the student who plans to work and study in the field of elementary education, social work or psychology. Students will gain an understanding of how to balance work and family and will also gain a more in-depth knowledge of human development.

Topics include curriculum areas in elementary and early education, the various types of childcare centers, licensing procedures, communication with parents, nutrition, and math and science for young children. Students will take a leadership role in the Preschool along with their role in the planning, organizing and operation of the day-to-day program. Students will also plan and implement special activities during the year including field trips, Open House, and graduation. This course involves independent work, is student-centered and project based.

Daily Food Preparation and Nutrition Skills
The Daily Food Preparation and Nutrition Skills course is designed to assist students within the Pascack Valley Regional High School District to acquire food selection, handling, and nutrition skills necessary for living on their own after high school. Students will also learn proper table setting and etiquette practices. Topics will include safety, reading a recipe, measuring, basic-food preparation techniques, nutrition, maintaining a healthy lifestyle and becoming an informed consumer. The course will include group work, guest speakers, videos, shopping trips, Internet research, and hands-on activities.

http://www.dreamstime.com/illustration/preparation.html#details30206326

Not all courses may be offered to all students at all times.
HEALTH AND PHYSICAL EDUCATION DEPARTMENT

COURSE DESCRIPTIONS

Health Education

Grades 9, 10, 11, 12

The Health Education program provides learning opportunities that motivate and educate students to protect, maintain, and improve their own health and that of others. These learning strategies are based on the best available scientific knowledge covering a broad range of relevant health concepts and are designed, selected, and conducted in accordance with the needs, interests, and maturational levels of the individual students and with the needs of the community at large.

The Health Education program, which is integrated into the student's regularly scheduled Physical Education classes, explores alternatives for living in a world of conflict and change. Guest speakers are invited to talk on a variety of subjects. The areas covered in the Health Education classes include such topics as safe living (including driver and traffic safety), mental, physical, and community health.

Health Education students meet for a period of time during their regularly scheduled Physical Education classes. All students must fulfill district requirements for Health Education regardless of whether or not they are excused from Physical Education.

Health Education Program Goals

These goals have been adopted by the Pascack Valley Regional High School District and its sending districts and reflect the comprehensive Health Education program they have articulated. Assessment standards have been developed for each grade level and subject area.

- The student has positive feelings about the individual self and all people.
- The student has the knowledge and skill needed to insure the physical and mental health of the individual self and others.
- The student makes decisions and acts in ways that contribute to good personal and community health.
- The student has a basic knowledge of human growth and development.
- The student has knowledge and skills relative to safe living, accident prevention, and emergency care.
- The student knows the purposes served by the family in providing psychological security to its members and the reasons that families have been the basic unit in most societies.
- The student knows the major local, national, and global health problems and some of the ways in which they might be solved.
- The student is familiar with and is able to evaluate and use materials and services provided by individuals and/or organizations dedicated to solving health problems.
- The student is knowledgeable about vocational opportunities in health and allied fields.
Physical Education

Physical Education provides an opportunity for the optimal physical and emotional development of an individual. It is an integral part of the educational program and provides another discipline in which a person can become fully educated. This discipline augments other disciplines in attempting to develop young people with integrated personalities capable of functioning at a high level of efficiency in work, recreation, and everyday activities. Physical Education teaches skills that affect and enhance the quality of life in all individuals regardless of their ability. Its aim is the total fitness of growing young men and women to meet the demands of living today and in the future.

Each Physical Education course consists of activities in games of low organization, team sports, individual and dual sports, recreational activities, lifetime recreational activities, and physical fitness. While specific activities may vary between the high schools, common goals, attitudes, and values are stressed consistently between grade levels in each building and between the high schools.

Students in physical education are graded on satisfactory compliance with class regulations and class participation, not on physical ability.

Physical Education Program Goals
These goals have been adopted by the Pascack Valley Regional High School District and its sending districts and reflect the comprehensive K-12 Physical Education Program they have articulated. Assessment standards have been developed for each grade level and subject area.

- The student is able to maintain a state of physical fitness to the best of their ability (strength, endurance, and good body condition).
- The student knows the basic structures and functions of the human body.
- The student is able to exhibit neuromuscular coordination techniques, agility, balance, and flexibility in a variety of physical educational activities and sports.
- The student values participation in sports and other activities throughout life.
- The student is able to apply desirable health knowledge and safety practices when participating in physical education activities and sports.
- The student knows rules and is able to apply strategies in a variety of physical education activities and sports.
- The student values the personal qualities of self-control, self-confidence, fair play and respect for others that enable the individual to work and play with others for common goals.
- The student values graceful form and movement.
MUSIC DEPARTMENT

COURSE DESCRIPTIONS

It is the mission of the Music Department to help all students achieve a personal level of understanding, appreciation, and passion for music and instill the inspiration for a lifelong participation in music. The department strives to provide students with the essential skills that are critical to their success in school, work and life. The skills, knowledge, and habits acquired through the study of music enrich students’ lives. Through these experiences, students build positive personal relationships with others, preparing them to live and work in a culturally diverse society.

Choir/Lunch

Grades 9, 10, 11, 12

This choral class meets for a half period and is designed so all students can have a choral experience. Students will learn proper vocal technique as well as perform music of all genres. Performances throughout the year are presented with other vocal ensembles.

Band/Lunch

Grades 9, 10, 11, 12

This band class meets for a half period and is designed so all students can have a band experience. Students will learn proper techniques as well as perform music of all genres. Performances throughout the year are presented.

Concert Choir

Grades 9, 10, 11, 12

Membership in the Concert Choir is open to all high school students, regardless of any previous musical background or experience. Concert Choir meets for a full period and provides students with a more in-depth experience. The course concentrates on vocal training, performance and sight-reading skills. Students perform throughout the year with exposure to a variety of music styles.

Chamber Choir

Prerequisite: Audition

Grades 9, 10, 11, 12

Chamber Choir is our most advanced choral ensemble. The goal of this choir is to enrich vocal technique, performance standards and sight reading skills. The music performed is designed to challenge the student vocalist. The repertoire comes from all genres of music with performances occurring throughout the year. Selection to this ensemble is by audition with the Choral Director at the high school. To secure an audition, contact the high school Choral Director and check the director’s website for audition dates.

Not all courses may be offered to all students at all times.
Concert Band

Membership in the Concert Band will be open to all high school students, regardless of any previous musical background or experience, interested in learning to play a brass, woodwind or percussion instrument. The Concert Band program includes music fundamentals of reading music notation, performance techniques and rules of music interpretation. In addition to performing in evening concerts, Band students perform at assemblies, pep rallies, clinics and festivals. Students are encouraged to take this course for four years and are expected to produce increasingly advanced work with each year.

Marching/Concert Band

Membership in the Marching/Concert band will be open to any high school students interested in playing a brass, woodwind or percussion instrument. Students enrolled in this class form the nucleus of all other instrumental music activities within the school. The Marching/Concert Band includes music fundamentals of reading music notation, performance techniques, rules of music interpretation and marching techniques. Marching Band performances include assemblies, pep rallies, clinics, football games, parades and festivals.

After the marching season, this band becomes the Advanced Concert Band and performs throughout the school year at evening concerts, assemblies, clinics and festivals. Students are encouraged to take this course for four years and are expected to produce increasingly advanced work with each year. Extra-curricular opportunities for students in the Marching/Concert Band include the Jazz Band, Pit Orchestra and small ensembles. Admission to the course is by permission of the instructor.

String Orchestra

This full year course is open to any student interested in performing music on orchestral stringed instruments (violin, viola, cello, bass violin). This course will include music fundamentals, principles of tone production, and rules of interpretation of string literature. Previous experience is required, and students must provide their own instrument. This class will perform together as an ensemble at the end of each semester.

Music Technology*

This course is designed for students interested in music and exploring the world of music technology. The music technology class will equip students with a working knowledge of the industry tools for composition and notation, sound recording/engineering, web presence development and the history of commercial music in the United States. The class will develop students' understanding of basic computer systems and tools that the music industry uses as well as provide hands-on learning for basic recording and mixing techniques. *It is encouraged but not required for students to be able to read music and/or have notational music literacy skills.
**Music Theory**

Grades 9, 10, 11, 12

This course is recommended for students with a serious interest in music, or those planning a music major or minor in college.

This course is designed for students who seek the opportunity to create original music compositions. Music Theory will equip the student with a working knowledge of the art of music through the study of music’s structure and theories. In addition to developing compositional abilities, experiences will include the development of skills needed to analyze and evaluate music. Students will explore music’s relationship with other disciplines and its impact on culture, and development of ability to perform, record, present and discuss original compositions. After successfully completing this class, student will be eligible to enroll in AP Music Theory.

**AP Music Theory**

Prerequisite: Recommendation of teacher and supervisor

Grades 11, 12

This course is recommended for students with a serious interest in music, or those planning music major or minor in college. It will also prepare students to take the AP Music Theory exam in May.

This course is designed for students who seek the opportunity to recognize, understand and describe the materials and processes of music that are heard or created in a score. Students work towards creating their own original music compositions. AP Music Theory will further equip the student with knowledge of the art of music through the study of music’s structure and theories. In addition to continuing to develop compositional abilities, experiences will include analytical and evaluation techniques of music. Students will continue to explore music’s relationship with other disciplines and its impact on culture, and development of ability to perform, record, present and discuss original compositions.

**Introduction to Music through Guitar**

Half-year elective

Grades 9, 10, 11, 12

This semester course is open to all students interested in studying music and playing the guitar regardless of their musical background. This course introduces the basic fundamentals of music and guitar playing. This course is recommended for beginning guitar students only. Experienced guitar players should enroll in Guitar I.
Guitar I
Prerequisite: Introduction to Music through Guitar or six months of private study Grades 9, 10, 11, 12
This class is open to all students interested in studying music and playing the guitar regardless of their musical background. The Guitar I class introduces the basic fundamentals of guitar playing through a variety of musical styles, time periods and levels of complexity. It includes interpreting music for the guitar, chord symbols, music reading and the utilizing of various finger picks and strums.

Guitar Ensemble
Prerequisite: Guitar I Grades 10, 11, 12
This course is open to all students who have taken Guitar I. This course continues and explores in greater depth chords and chord progressions, more difficult strumming patterns, increasingly more complex exercises, advanced techniques, and classical pieces as well as popular songs. Students will be exposed to various compositional and improvisational techniques to aid to their own composing and creative solo playing. Individual and ensemble performance is required.

History of American Popular Music
Half-year elective Grades 9, 10, 11, 12
This semester course will trace the development of American Popular Music from 1700 to the present. Historical time periods, significant musical styles and trends in American popular culture will be explored. Recorded examples of the various styles will be presented and the contributions of important American composers and songwriters will be discussed. Musical styles to be covered will include Folk Music, Patriotic Music, Dance Music, Blues, Jazz and Rock & Roll.
The study of Technology can most plainly be described as the study of our “Designed World.” In other words, the products and processes in our environment that have been created by people. Advances in technology are designed with the goal of supporting humans in being more productive and satisfying customers’ and clients’ needs and wants. Exercise equipment, surgical tools, electronic fuel injection, hydroponics gardening, new drugs and even Gatorade, are the result of the application of The Design and Problem Solving Process. This also requires the application of knowledge from other areas such as math and science. Courses in Technology Education afford students the opportunity to increase their level of design and technology literacy. Students will better understand how to live and work with current and future technologies and understand the careers available to them in an ever-changing workplace.

Introduction to Innovation and Design
Full year elective
Grades 9, 10, 11, 12
This course introduces students to principles in STEM (Science Technology Engineering and Math) and Design. Students will learn how computer software and rapid prototyping processes, such as 3D printing, can be used to design and create products, ranging from car parts and smartphone cases to graphics, fashion accessories and prosthetics. This is a project-based course where students will be immersed in the design process as it relates to identifying and solving real-world problems.

Graphic Design I
Full year elective
Grades 9, 10, 11, 12
This course will introduce students to the concepts of using graphic images to communicate information, ideas, sell products and influence public opinion. Students will use industry-standard programs including Adobe Illustrator, Photoshop and InDesign for logos, branding and print advertisements and will use Muse and Dreamweaver for Web Design and App creations to explore the use of layout, typography and color. The hands-on, project-based format of the course will allow students to communicate with a specific audience by conceptualizing ideas and designs, and outputting them in various formats and medium, creating digital media products that meet the needs of the consumers/clients.
**Graphic Design II**
Prerequisite: Graphic Design I
Full year elective Grades 10, 11, 12
In this course, students will build upon the skills generated in Graphic Design I as they continue to combine technology and art to communicate ideas visually and explore career paths in graphic design. Students will engage in advanced study in creative visual design, communication and production processes, including advertising campaigns, creating promotional items, package design, and corporate identity and branding. The projects in this course will center on real-world application of software and skills in order to creatively solve problems that exist in the design industry across various fields. The focus will be on print-driven media, with advanced methods of mock-up construction, display and photography, with the option to create a professional portfolio.

**Architecture**
Full year elective Grades 9, 10, 11, 12
In this STEM and design course, students will integrate the design process as it relates to creating a 3-D model of a residential structure (i.e. a dream home). They will learn to develop floor plans, cross-section, elevations, and perspective drawings and the fundamental concepts related to communicating architecture-related technical information and design ideas. Through a series of hands-on experiences, students will become familiar with the sketching, lettering, scale drawing, print reading, visualizations, and problem solving techniques used by architects. They will use industry-standard software such as AutoDesk Revit and CAD to support them in developing their models.

**Robotics and Game Design**
Full year elective Grades 9, 10, 11, 12
In this STEM and design course, students will explore the fields of robotics, control systems, and game design, using various computer programs and applications (i.e. Python). Students will work individually and in teams to design, program, build and test robotics systems and digital games. Students will integrate engineering design and computer programming to solve design challenges and bring their ideas to life.

**Engineering Design I (Honors)**
Co-requisite for 9th grade students: Honors Biology
Note: This course is designed for the serious pre-engineering student Grades 9, 10, 11, 12
In this STEM and design course, students will identify problems, perform research, then conceive and design solutions in a variety of engineering disciplines including but not limited to: chemical, civil, computer, electrical, industrial, mechanical, reverse and systems engineering while exploring Universal Design. Students will gain a more in-depth understanding of how to use a variety of software applications in the creation of design solutions. Sample projects might include brewing the perfect cup of coffee, redesigning a building in an earthquake-prone region, building a circuit with an arduino microcontroller and programming it to play a piece of music, designing technologies for people with disabilities, and designing and deploying an aerial imaging system. The course will use Autodesk CAD, Inventor and Revit software and rapid prototyping devices, such as 3-D printers and laser engravers to support students in the design process. Students will have the option to apply for college credits (dual enrollment) from the University of Texas at Austin.
Engineering Design II (Honors)
Prerequisite: Engineering Design I
Co-requisite for 10th Grade Students: Honors Chemistry
Note: This course is designed for the serious pre-engineering student
Grades 10, 11, 12
As a continuation of Engineering Design I, students will have the opportunity to hone their STEM and design abilities and apply them to more complex engineering problems. Taking on the role of engineer, students will identify problems, perform research, then conceive and design solutions in a variety of engineering disciplines, as well as enter into local competitions. Local competitions may include but are not limited to the Panasonnic Design Challenge, Edison Challenge, TSA, Passaic County Community College Robotics Challenge, WaterBotics and STEM League. Students will work in groups to research and develop prototypes used to compete against student groups throughout the region and state. The course will use Autodesk CAD, Inventor and Revit software and rapid prototyping devices, such as 3-D printers and laser engravers to support students in the engineering design process.

Physics and Technology
Prerequisite: Chemistry
Co-requisite: Algebra II with Trigonometry/Enhanced or Honors Algebra II with Trigonometry
Note: This is a 10-credit course that fulfills science and practical art requirements
Grade 11
Physics and Technology is a full-year, ten-credit course, taught by a physics instructor and a technology education instructor. The course is designed to emphasize physical concepts that are applicable to technology, and to incorporate these concepts into working technological prototypes. The course will encompass theory, practice, and the real-world application of knowledge gained in physics that leads to creative problem solving in technology. The course will explain how the physical universe functions and will use that information to solve problems dealing with our ever-changing environment. The course will use Autodesk CAD, Inventor and Revit software and rapid prototyping devices, such as 3-D printers and laser engravers to support students in the engineering design process.

Video Production
Full year elective
Grades 9, 10, 11, 12
Video Production is designed to give students basic instruction and hands-on experience in the operation of the various kinds of equipment typically found in commercial television studio and film sets. Students will be directly involved in planning, shooting and editing various projects throughout the year including music videos, short films, commercials, and more. From learning camera angles and shot composition, to storyboarding and script writing, students in this class will learn how to make their ideas and imagination come to life.

Advanced Video Production
Prerequisite: Successful completion of Video Production and teacher recommendation
Grades 10, 11, 12
Advanced Video Production is designed to review, expand upon and apply the basic operational techniques introduced in Video Production. Students will learn how to use professional cameras (DSLR and Television Studio Cameras) and how to expand their editing IQ with their projects using After Effects. In addition, there is a greater emphasis on long-term projects, such as documentaries, advertising campaigns and competing in state film competitions. Students will have the opportunity to create a portfolio to showcase their talent for college and career opportunities.
Broadcast Television Production
Prerequisite: Successful completion of Video Production and teacher recommendation Grades 10, 11, 12
Students will learn advanced studio and field production techniques, including the use of professional equipment and software as they apply to individual projects, as well as the school-based news shows. This course includes production and development of content for the weekly news shows. Students will interview staff and students and film academic, extracurricular and athletic events. They will be expected to maintain a professional and positive relationship with members of the school and community.

Research in Innovation and Design (Honors)
Prerequisite: Successful completion of one or more Technology Education courses and teacher recommendation Grades 11, 12
In this capstone course, students will carry out an independent project of their own design. They will submit their work to regional and state competitions for opportunities to compete at the national and international level. Sample projects may include but are not limited to designing a new form of head gear to reduce concussions in sports or other injury-prone activities, prosthetic limbs for people with medical conditions/injuries, a new-type of environmentally friendly utensils for fast food restaurants, create a prototype for an autonomous car, or designing a new type of living facility. Students will work closely with teacher mentors and explore college and career options as part of the course.
SPECIAL EDUCATION DEPARTMENT

The Special Services Department of Pascack Valley Regional High School District (PVRHSD) is committed to ensuring that each student with a disability receives a free and appropriate public education consisting of placement and services based on the student’s unique needs. Our students are afforded full educational opportunities, and to the maximum extent possible, are placed in the least restrictive environment.

This is accomplished through a range of in-district placement options. As appropriate, classified students can be mainstreamed with supplementary aids and services in general education classes. Also, inclusive education is provided through in-class support from a Special Education teacher in collaboratively taught classes.

Students benefit as well from Resource Replacement and Secondary Special classes, (taught by Special Education and General Education Content Specialists respectively), which offer smaller class size, a higher frequency of individual and small group instruction, and adapted curriculum whereby pacing and breadth of instruction are adjusted to meet students’ needs.

In addition to the aforementioned class offerings, PVRHSD has five Special Programs to meet the multiple needs of students with a range of disabilities. There are two programs for behavioral disabilities, which provide therapeutic and behavioral services as well as adapted curricula. Also, the district offers a program to students with mild to moderate intellectual and learning and language disabilities that offers modified curricula, functional life skills development, community based learning opportunities, and vocational skill development. The most recent addition to the district’s Special Programs is Milestones@PVR; this is a Life Skills program for adult students with disabilities ages 18-21. In addition, an Extended School Year program is provided in July, in accordance with a student’s Individualized Education Program, when an interruption in educational programming would cause the student’s performance to revert to a lower level of functioning and recoupment would not be expected in a reasonable length of time.

This broad base of services reflects the district’s commitment to providing students with a host of opportunities and options that enable personal and academic success. We believe that all students can thrive when afforded effectively tailored individual education plans.
OTHER PROGRAMS

Satellite School

The Bergen County Technical Education Center, Northeast Satellite School in Paramus is a shared time facility cooperative with local high schools in Northern Bergen County. Paramus Satellite provides local high schools with County sponsored vocational-technical courses directed to the individual needs of job-oriented high school students. The aim is to help students emerge with marketable skills for employment upon graduation from high school.

Paramus Satellite provides half-days of vocational and technical training which are coordinated with the students' high school schedules. Academic classes and extra-curricular activities take place in the "home" high school. The Pascack Valley Regional District will provide tuition and transportation for enrolled students.

Among the shops in operation at Paramus Satellite are Auto Body, Auto Mechanics, Culinary Arts, Carpentry, Retail Merchandising, Graphic Communications, Cosmetology, Small Animal Care, and Integrated Office Systems.

NOTE: The Satellite School calendar may vary slightly from the calendar of the Pascack Valley Regional High School District.

Virtual High School (VHS)

Virtual High School is a collaborative of more than 200 high schools from across the country and around the world. It offers our students a way to experience learning in an entirely new way, completely via the Internet. A student should consider taking a VHS class only if he or she is an extremely self-motivated, self-disciplined learner who is a proficient user of technology. VHS allows students an opportunity to pursue an area of particular interest. Students may only choose courses that are not currently available in our schools. Before students apply, they need to make sure that they fully understand what is involved in taking an online course through Virtual High School. For further information, please visit the Guidance website.

Students interested in any of these programs must submit an application for admission. All applications must be processed through the high school guidance department and the office of the regional superintendent. Admissions decisions will be made by the Central Admissions staff of the Bergen County Technical Schools. Additional information may be attained from the high school guidance department.

Study Skills

Study Skills will focus on the development and implementation of fundamental skills necessary for high school success. Areas of focus include organization, communication and self-advocacy, time management, memorization, test taking, problem solving, listening and writing skills, and timely completion of assignments. Guided instruction and the use of technology will also provide students with a platform for effective note taking and the ability to compose projects and presentations.
English 1-2, and 3-4

In English 1, 2, 3, and 4, in order to prepare students more effectively to pursue life goals, an individual prescriptive approach is infused into instruction to address language arts skills. The ultimate purpose is to develop literate readers, writers, speakers, listeners and viewers. The primary teaching goal is to strengthen each student's ability to process and communicate information.

In this course, teachers employ multisensory techniques, creativity and flexibility in order to accommodate individual student ability levels and needs. Activities are designed to encourage students to make connections to other disciplines, their own life or the world in general. The curriculum also addresses the reinforcement of essential skills, including reading comprehension, cooperative learning, effective communication, decision-making, and technology use.

The ninth and tenth grade curriculum encompasses literature study including the short story, novel, nonfiction works and plays. In addition, the writing component reinforces paragraph writing and the introduction to thesis development. Grammar instruction focuses on student recognition of individual weaknesses in speaking and writing. Vocabulary is taken from the context of literature and includes the study of word roots. The final component incorporates research, presentation and study skills.

The eleventh and twelfth grade curriculum focuses on the study of the traditional and modern author through the novel, the short story, and the drama. The writing component centers on expository type writing related to personal experiences and literature read. Grammar is taught in conjunction with writing assignments. Vocabulary expansion focuses on contextual analysis and the continued study of word roots. Research and presentation skills are incorporated into each unit of study.

Themes in World History


Themes in United States History I

In Themes in United States History I, students will acquire the knowledge and skills to think analytically and systematically about how past interactions of people, cultures, and the environment affect issues across time and cultures. Such knowledge and skills enable students to make informed decisions as socially and ethically responsible world citizens in the 21st century. Topics include: Colonial America, The American Revolution, The Constitution, The Early Republic, Political, Economic and Social Reform, Manifest Destiny and The Mexican War, The Civil War, Reconstruction and The West.
Themes in United States History II

Grade 11

In Themes in United States History II, students will acquire the knowledge and skills to think analytically and systematically about how past interactions of people, cultures, and the environment affect issues across time and cultures. Such knowledge and skills enable students to make informed decisions as socially and ethically responsible world citizens in the 21st century. Topics include: The Industrial Era, The Spanish-American War and World War I, The Progressive Era, The Roaring 20s and Great Depression, World War II, Post-war and the 1950s, The Civil Rights Movement, the 1960s, 1970s, The Era of Activism, and Nixon to present.

Math 1-2, and 3-4

Grades 9-10, 11-12

In Math 1, 2, 3 and 4, students will demonstrate increasingly complex understanding of number sense, spatial reasoning, geometric principles, measurement, data, personal finance and analytic procedures. In addition, students will solve increasingly complex mathematical problems, making productive use of algebra and functions. To accomplish the task of building understanding within this curriculum, students will participate in various types of activities and lessons that are designed to address different learning styles. Students will take part in engaging hands-on scientific and mathematical experiments, collaborative educational games, and teacher-facilitated group discussions; interactive technology will be utilized to demonstrate and assess comprehension.

Elements of Environmental Biology

Grade 9 or 10

This course is designed to give students an understanding of science practices in the field of biology. The intent of this course is to provide each student the opportunity to develop an understanding and appreciation of major scientific concepts including cell processes, genetics, evolution and ecology. From this conceptual base, students will be encouraged to foster critical thinking skills, to apply knowledge and to identify the real-life significance of biology.

Elements of Chemistry in the Community

Grade 9 or 10

This course is designed to give students an understanding of some of the key aspects and applications of chemistry. The intent of this course is to provide each student the opportunity to acquire knowledge of major scientific concepts including processes that scientists employ and how they pertain to real life, the significance of the structure of matter, how weather and climate affect the earth, how climate is changing and how human activity affects our changing environment, and how food serves as an important source of energy and nutrients necessary for daily living and growth. Elements of Chemistry in the Community incorporates student-centered activities and is designed for students who need a more concrete learning environment. From this conceptual base, students will be encouraged to foster critical thinking skills, to apply knowledge and to identify the real-life significance of chemistry.

Elements of Conceptual Physics

Grade 11 or 12

This course is designed to give students an understanding of some of the key aspects and applications of physics. The intent of this course is to provide each student the opportunity to acquire knowledge of major scientific concepts; this course emphasizes the understanding of the world and the universe through a study of the following topics: mechanics, electricity and magnetism, and light, sound and optics. From this conceptual base, students will be encouraged to foster critical thinking skills, to apply knowledge and to identify the real-life significance of physics.

Not all courses may be offered to all students at all times.
Related Arts

Grade 9, 10, 11, 12

Related Arts will serve as an introductory hands-on art course; prior art experience is not required. This course will focus on the basic elements and principles of art and design. Students will have the opportunity to explore projects and activities in both the two and three-dimensional realms. In addition, the course will encourage appropriate social skills and routines in the art studio (studio etiquette) and working collaboratively with other artists. Students will engage in a variety of visual problem-solving experiences such as: drawing, painting, collage, sculpture, metal tooling, mixed media and more. Projects/units will contain current and historical contexts to help develop visual literacy. Visual self-expression and problem solving will be encouraged, as well as experimentation with various materials and techniques.

Transition Education 1 and 2

Grades 11 and 12

This course focuses on instruction and support services needed to help students move from the school environment to the workforce, vocational program or other program designed to promote independent living. Concurrently, students participate in Job Sampling and Structured Learning Experiences. Through Job Sampling, students are introduced to professions and industries to help them prepare for employment. In a typical experience, students shadow employees and participate in workplace activities/tasks with the guidance and supervision of a Job Coach. Structured Learning Experiences (SLE) are experiential, supervised, in-depth learning experiences designed to offer students the opportunity to more fully explore specific career interests. The SLE program allows students to practice skills in areas of individual strengths in real work situations to develop independent working skills. Although Job Coach oversight is present, students have more interaction with employees who are designated site mentors.

Daily Living Skills 1 and 2

Grades 9 and 10

The Daily Living Skills 1 and 2 course is designed to provide each student the opportunity to acquire knowledge in the areas of independent living, including functional life and social skills. Community Based Instruction is a component of the Daily Living Skills curriculum that assists students to generalize classroom-based learning in community settings.
NOTICE OF NONDISCRIMINATION

The Pascack Valley Regional High School District provides an equal education for all its students, regardless of race, color, creed, national origin, sex, social and economic status, or disability. All students are provided with equal access to educational programs, school facilities, staff services, supplementary programs, and school sponsored activities, curricular and extracurricular, in support of the requirements in Title IX of the Education Amendments of 1972, N.J.A.C. 6:41-1 et seq., Section 504 of the 1973 Rehabilitation Act, and the 1990 Americans with Disabilities Act.

INQUIRIES AND/OR COMPLAINTS MAY BE DIRECTED TO:

District Affirmative Action Officer / ADA Coordinator
Dr. Barry Bachenheimer

District 504 Officer / HIB Coordinator
Sean Struncis

at

Pascack Valley Regional High School District
28 West Grand Avenue, Suite 2, Montvale, NJ 07645
(201) 358-7010

District policies and implementation plans can be obtained at the administrative offices located at 28 West Grand Avenue, Suite 2, Montvale, NJ 07645.