



PISCATAWAY TOWNSHIP SCHOOLS

PISCATAWAY HIGH SCHOOL

COURSE BOOKLET

2021-2022

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PLANNING YOUR FUTURE

Piscataway High School offers a variety of courses to meet the educational needs of all of our students. Course selection is the beginning of the journey to your future. Decisions regarding your academic and career goals involve thought and planning.

Your high school transcript is an important record of your high school achievement as a snapshot of your four years at PHS. The transcript includes a record of all courses taken, grades earned, test scores, activities, honors and awards, and other personal information. Your transcript is probably the most important document for determining post high school educational and employment opportunities.

The 2021-2022 Course Booklet provides you and your families with descriptions of Piscataway's course offerings. Graduation requirements mandated by the New Jersey State Department of Education and the Piscataway Board of Education are explained. We urge you to take the time to read this information carefully.

THE PROCESS OF COURSE SELECTION

- ◆ Your counselor will meet with you individually and in small groups to help you plan your high school program.
- ◆ Your teachers will make course recommendations based on your present and past performance.
- ◆ Your family is important in this process and will review your course selections with you.
- ◆ Grade 8 students will design a tentative 4-year plan, which will be revised and edited each year with their counselors.
- ◆ Due to the extensive number of courses offered, students may not be able to be scheduled for every course requested and may need to make choices regarding alternate selections.
- ◆ Courses that lack sufficient enrollment may not be offered.

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 સંપર્ક સાધો.

Estimados padres y estudiantes.

Este documento contiene información necesaria para planear su programa escolar en Piscataway High School. Si Ud. tiene alguna pregunta sobre cualquier tópico le podemos ayudar con una conferencia con un interprete. Puede llamar al departamento de idiomas para pedir ayuda, (732) 981-0700 ext. 2244.

RECOMMENDED COURSE LOAD

You may fill in your program with electives that help to enrich your background, complete entrance requirements for specific schools, or offer experiences in the area of special talents. Students are encouraged to fill their schedule with academic courses and not to select a study hall. You may not be scheduled for more than one study period per semester.

It is recommended that you select alternates. In case of schedule conflict, an attempt will be made to use the alternate course.

IMPORTANT INFORMATION

- **Independent study** courses can be made available based upon a written request from the student. All courses offered for independent study have the following requirements:
 - All pre-requisite course work must be complete
 - The department supervisor must give permission
 - The instructor must be available
 - The course's credit value (from 2.5-10.0) will be based on the number of days and periods per week that the course meets

- All courses will be offered based on enrollment, local requirements, and changes in the New Jersey Core Curriculum Content Standards, Common Core State Standards and Next Generation Science Standards.
- Students who are interested in *early graduation* should inquire about the procedure from their counselor during ninth grade.
- **Eligibility requirements** for participation in extra-curricular activities and athletics are listed in the Student Handbook.
- Students who are interested in participating in *athletics in college* must take courses that meet the NCAA Guidelines. Please consult the Student Handbook.
- **Failures:** Any student who fails to attain the minimum number of required courses or credits will automatically become a five-year student unless the failures are made up in summer school with passing of district competency assessments or by special permission of the principal.
 - Please note that U.S. History 1 must be successfully completed before U.S. History 2
 - Please note that English 1, 2, & 3 must be successfully completed before taking English 2, 3, & 4 respectively.

This policy will be strictly adhered and has been established because of the work requirements in each course. Exceptions to this policy can only be made with the approval of the High School Principal.
- **Independent Study** is available for students who feel they can profit from independent work. Although the methods of evaluation depend largely on the students' personal goals, conferences, written and multimedia reports, and discussions are among the methods used to determine the progress of each student.

SCHEDULE CHANGES

Scheduling presents quite a challenge with such a large student population. Careful planning should go into your course selections. When you decide on the courses you want to take, your requests should be a list of courses you intend to complete. Your course selection should be discussed and **finalized** with your counselor and your family in the early spring. Schedule modifications will be made during the summer in cases such as:

- failing grades in pre-requisite courses
- state assessment or standardized assessment scores
- district summer competency assessment scores; summer school credit recovery

SPECIAL EDUCATION

For students that are classified, the special education department offers a comprehensive list of programs in order to accommodate the various educational needs of students. Piscataway High School programs for special education student include general education with supports, In-class resource, resource room and self-contained settings. A student's academic, social and behavioral needs are considered when developing a student's individual program. Special education programs provide classified students with all the required courses as outlined in the student's IEP and in compliance with the District's mandates.

The brief description of the programs are below:

General education with supports placement is a program that provides special education students with the supports in a general education environment based upon their individual needs.

In-class resource placement provides special education students the benefits of a general educational environment that is supported by two teachers: general education and special education. The general education teacher provides the content expertise and complies with the student's individual educational plan. The special education teacher provides the expertise in the individual supports, modification and accommodation as designated in the student's IEP.

Resource placement provides special education students a smaller setting where the instruction is specialized and individualized to address a student's specific educational needs such as a smaller setting, an adjusted pace or specialized programs. The pace of instruction and content is modified in this program. These needs are determined on an individual basis and vary from student to student.

Self-contained settings allow student's with significant cognitive needs to have the individualized instruction that is based upon their academic and functional levels. The supports in this setting vary and are determined based upon the specific needs of the individual student.

The IEP team makes that program recommendations in conjunction with the testing and information provided by the Child Study Team. The IEP team consists of the student's case manager, parent/guardian of the student, student, general education teacher, special education teacher, counselor/transition coordinator, and any other necessary personnel that has specific knowledge regarding the student. Upon the entrance in Piscataway High School, classified students are assigned a case manager that designs, monitors and ensures implementation that is in compliance with State and Federal code. Educational programs are reviewed annually and changed or modified to address the needs of the individual student.

ACADEMY PROGRAM

Piscataway High School is committed to providing our students excellent comprehensive learning opportunities to achieve personal excellence. We recognize the various potentials and talents of our students. This year, PHS will offer 5 Academy programs in the areas of Biomedical, Engineering, Performing and Visual Arts, Pre-Law & Justice, providing students opportunities to explore career fields of their own choice. Selected students will follow the four year recommended sequence of courses and graduate with honors upon completing all requirements.

DUAL CREDIT PROGRAM

For students who are interested in earning college credits for courses taken at Piscataway High School, the concurrent credit program is available to students who meet specific departmental prerequisite requirements. In this program, teachers become adjunct professors for local colleges and universities with the curriculum taught at the high school following the college syllabus. The cost of tuition is absorbed by the student's family.

Students who earn the minimum final grade for the course are awarded high school credits along with three or four college credits (depending on the course), which are generally transferable to two- or four-year colleges.

The following courses are currently offered for concurrent credit:

- ***Mathematics Department:*** College Algebra, Trigonometry and Precalculus
- ***English Department:*** Expository Writing
- ***Business Department:*** Honors Accounting; Business Organization, and Management (Honors); and Economic Seminar (Honors).
- ***Science Department:*** Biomedical Course(s)

STUDENT OPTION

In addition to the traditional program, students will also be able to choose one of the following options:

- ***Internship Program*** – An unpaid internship in some aspect of the adult world of government, business, or the service professions.
- ***Off-site College Courses*** – Students enroll in courses at a local college or on line with the cost of tuition absorbed by the student's family; department approval required.

Internship Program

- Internship examples are business, law, government, medicine, the sciences, the arts, broadcasting, etc.
- Topic/field of interest researched by the student.
- Student may be enrolled in an abbreviated PHS schedule.
- Student must be able to satisfy the graduation credit requirement by the end of the senior year.
- Transportation provided by the student.
- Student must have met graduation assessment requirements, a satisfactory attendance, academic, and disciplinary record.
- Securing the internship is the responsibility of the student.
- Student will be required to demonstrate learning through a field journal, portfolio, presentation, etc.
- Student will be required to meet regularly with the Senior Option Project Coordinator.
- District review and approval of student program application for Internship Program.

Off-Site College Courses

- Student researches desired courses.
- Courses must be reviewed and approved by the Student Option Project Coordinator.
- All costs paid by the student's family.
- Student may have an abbreviated high school schedule.
- Student must be able to satisfy the graduation credit requirement by the end of the senior year.

- Student must have met graduation assessment requirements, a satisfactory attendance, academic, and disciplinary record.
- Student must adhere to college policies and procedures.

EARLY RELEASE

Early release privilege is available to **seniors** who are on track for graduation; this includes being in progress of passing credit/course requirements, have met the graduation assessment requirements, and is in good academic and disciplinary standing. Early release form must be completed and signed by parent/guardian, school counselor and assistant principal. Questions or concerns about the early release privilege should be directed to the student's school counselor.

ADVANCED PLACEMENT COURSES

Piscataway High School offers twenty (21) AP Courses to prepare our students to be successful in higher order thinking measured by AP examinations. By participating in AP classes you can not only earn college credit, but when in college, you will have time to move into upper-level courses in your field of interest, pursue a double major, and/or study abroad. Enrollment in AP classes at PHS will give you the flexibility to get the most out of your college years. We encourage every student to take advantage of this unique learning experience that will help you succeed in college. Advanced Placement students at PHS demonstrate their maturity and readiness for college while emphasizing their commitment to academic excellence – the hallmark of Piscataway High School.

Please review the AP course descriptions contained within this course selection guide. While prerequisite courses are listed in the description, students may also seek teacher recommendation and department chair approval with counseling to register for these courses. Parents may also sign a waiver to place students in AP level classes. Teachers, counselors, and department chairs will monitor students and advise them of supports that are available to students, such as tutoring, study groups, and AP Saturday Academy. Students should enroll in the district summer program, AP SNEAK PEEK, for two weeks of pre course instruction, giving students an advantage when entering AP courses.

Why not become part of a community of learners and teachers who are passionate, curious, and committed to academic excellence? You can engage in intense discussions, learn to write clearly and persuasively, and solve problems collaboratively. Take AP courses at PHS which reflect the level of learning that is occurring at universities throughout the country.

HONORS COURSES

In addition to Advanced Placement courses, Piscataway High School offers several honors courses in Business, English, Mathematics, Music, Science, Social Studies, and World Languages.

The following Career Preparation Guide may be helpful:

CAREER PREPARATION GUIDE

2021-2022

<i>Goals</i>	High School Graduation	Two Year College	Four Year College	Engineering College	Technical Institute	Direct Employment
	NUMBER OF YEARS RECOMMENDED					
English Language Arts	4	4	4	4	4	4
Social Studies	3	3	3-4	3	3	3
Mathematics	3	3	3-4	4-5	3	3
Science	3	3	3-4	3-4	3	3
World Language	1	2	2-4	3	2	2
Visual and Performing Arts	1	1	1	1-2	1-4	1-4
21 st Century Life & Careers	1	1	1	1-2	1-4	1-4

It is recommended that students take 35-40 credits per year.

GRADUATION CREDIT REQUIREMENTS	
Subject	Number of Credits
English Language Arts	20
Social Studies	
U.S. History	10
World Cultures	5
Mathematics	15
Science	15-18
Visual/Performing Arts	5
Practical/Career Arts	5
World Languages	5
Physical Education – Health – Driver’s Education	16-20
NJ Economics, Business, Entrepreneurship, Financial Literacy *requirement*	2.5
Electives and Additional Courses	22.5
Total Minimum Credits	125

Students who do not demonstrate minimum proficiency as determined by District testing may be required to take remedial courses. Students who do not demonstrate minimum proficiency as determined by State testing must take remedial courses.

The Classes of 2021 and 2022

The high school assessment graduation requirements that are in place for the Classes of 2019, 2020, 2021, and 2022 are: In English Language Arts/Literacy, students must demonstrate proficiency: 1. On NJSLA/PARCC ELA 10; or 2. By meeting the designated cut score on an alternative assessment such as other high school-level NJSLA/PARCC assessments, the SAT, ACT, or ACCUPLACER as defined in the chart below; or 3. By submitting, through the district, a student portfolio appeal to the New Jersey Department of Education. In mathematics, students must demonstrate proficiency: 1. On NJSLA/PARCC Algebra I; or 2. By meeting the designated cut score on an alternative assessment such as other high school-level NJSLA/PARCC assessments, the SAT, ACT, or ACCUPLACER as defined in the chart below; or 3. By submitting, through the district, a student portfolio appeal to the New Jersey Department of Education. Note: Special Education students, whose Individualized Education Plans (IEPs) specify an alternative way to demonstrate proficiencies, will continue to follow the graduation assessment requirements set forth in their IEPs.

The Class of 2023 and Beyond

The NJDOE is committed to providing fair notice to students and educators and will continue to collaborate with stakeholders to transition to the next generation of statewide assessments.

Piscataway High School Academies

Piscataway High School is committed to providing our students excellent comprehensive learning opportunities to achieve personal excellence. We recognize the various potentials and talents of our students.

This year, PHS will offer 5 Academy programs:

Biomedical Academy
Engineering Academy
Performing Arts Academy
Visual Arts Academy
Pre-Law & Justice

These academies provide students opportunities to explore career fields of their own choice and offer students enhanced preparation for college. Selected students will follow the four year recommended sequence of courses and graduate with honors upon completing all requirements.

Why Choose a PHS Academy?

- PHS Academies offer focused curricula targeted to specific career paths.
- At PHS, academies act as “schools within a school,” emphasizing specialized content areas while simultaneously offering the depth and breadth of a larger high school experience. Students at PHS Academies participate in all PHS athletics, arts, clubs, and activities.
- Academy students benefit from an enhanced support system – built within students’ specific academy program. Students will have opportunities to collaborate with peers that are interested in the same field of study and participate in a team-oriented learning environment within their focused discipline.

Admission Requirements

Admission is competitive with selection based on grades, test scores, teacher recommendations, and prior elective choices. For the Performing Arts and Visual Arts Academies, auditions and portfolios will be required. All admission information can be found in the academy application materials.

How to Apply?

All students who wish to apply to any PHS Academy must submit a completed Academy Application by November 21st. Applications are available at every Piscataway middle school and include a subject area test. Tests will be administered at the middle schools and visual and performing arts auditions will be held at Piscataway High School; dates will be made available to all interested students.

Specific Academy Course Sequences

Please see the following specific information for each Academy program.

Biomedical Academy

Purpose: The Biomedical Academy offers opportunities to explore health careers through a focused sequence of courses.

College Preparation: Through a partnership with Rutgers University, students have an opportunity to earn up to 14 Rutgers credits upon meeting all requirements. This will provide students with an opportunity to get a jump-start on their college career through acquisition of knowledge and the development of appropriate skills.

Pre-requisites: Middle school course work should include the following:

- Middle school honors Algebra I with an average grade of 90 or higher
- Seventh and Eighth grade Science with an average grade of 90 or higher.

Clinical Shadowing: Students will be required to complete a minimum of 10 hours of clinical internship during **each year** of the program.

Grade	Science I	Science II	Science III	Math	Clubs/Actives
9	Honors Biology			Honors Geometry or Geometry	10 Clinical hrs. GenEn Club Med Club Science League
10	Honors Chemistry		Dynamics for Healthcare in Society (Rutgers partnership) (2.5 HS credits + possibility of 3 Rutgers Credits)	Honors Algebra II or Algebra II	10 Clinical hrs. GenEn Club Med Club Science League
11	Honors Physics or Academic Physics	Human Anatomy & Physiology I for Health Science Careers (5 HS credits + possibility of 4 Rutgers credits)		Trigonometry/ Pre-calculus	10 Clinical hrs. HOSA (Health Occupation Students of America)
12	Human Anatomy & Physiology II for Health Science Careers (5 HS credits + possibility of 7 Rutgers credits)				10 Clinical hrs. HOSA (Health Occupation Students of America)

Engineering Academy

Purpose:

The Engineering Academy offers opportunities to explore engineering through a focused sequence of courses.

College Preparation:

Students in the engineering academy will have an opportunity to prepare for college admittance by building the foundations necessary for a major in engineering.

Pre-requisites:

Middle School coursework should include the following:

- Project Lead the Way Gateway Program
- Algebra 1

Grade	Engineering Academy	Project Lead the Way (PLTW)	Math	Science	Clubs/ Activities
9	Intro to Engineering	Electricity	Honors Geometry		Robotics/ Science Olympiad
10	Digital Electronics	Civil Engineering & Architecture	Honors Algebra II	Academic Chemistry	
11	Principles of Engineering		Honors Trigonometry/ Analytical Geometry	Honors Physics	Robotics/ FBLA
12	Computer Integrated Manufacturing		AP Calculus	AP Physics	

Performing Arts Academy

Purpose:

Performing Arts Students will not only learn the skills needed for a proficient artistic performance, but will also develop 21st century skills that will make them college- and career-ready upon graduation from high school.

College Preparation:

Admission to a performing arts program at the university level is rooted in the student audition. Students must develop a performance repertoire over their high school years to prepare for a successful college audition. There is some flexibility in the tracks below to foster a well-rounded artistic experience.

Pre-requisites:

Courses rely on established pre-requisites. Middle school students should enroll in music ensembles, the extra-curricular drama club, or take advantage of the Arts Education Student Opportunity Program (AESOP) Theatre and Dance programs in order to prepare. Interested applicants should refer to the application and audition information provided. Enrollment is limited. Admission to the academy will be offered based on student performance.

Pathway	Course Sequence			
Dance	Dance I	Dance II	Dance III	Independent Study/Dance IV
Theatre	Creative Dramatics	Acting Studio I	Theatre Production Workshop	Theatre Production Workshop Independent Study
Instrumental Music	Concert Band	Honors Wind Ensemble		Honors Wind Ensemble
		Symphonic Band		
	Orchestra	Honors Chamber Orchestra		
Choral Music	Concert Choir	Honors Chorale		Honors Chorale
		Honors Bella Voce		

Visual Arts Academy

Purpose:

The Visual Arts Academy offers many opportunities in the arts. A variety of courses have been designed to introduce students to areas of art that are enriching and allow for artistic growth and personal challenge.

College Preparation:

Admission to an art school is rooted in the student portfolio. It is best to develop skills in both 2D and 3D artwork. There is flexibility in tracks below to create a well-rounded artistic experience. The art department works carefully with students to prepare college portfolios.

Pre-requisites:

Each course relies on a pre-requisite. While there is some flexibility, there is an important order to coursework. Placement in the academy is limited. Interested applicants should refer to the application and audition information provided. Students will be scored on the attached rubrics and admission to the academy will be offered based on student performance.

Pathway	Course Sequence			
Drawing & Painting	Drawing & Painting I	Drawing & Painting II*	AP Drawing I	AP Drawing II
Photography	Photo Design I	Photo Design II*	AP 2D Design I	AP 2D Design II
Ceramics & Sculpture	Ceramics & Sculpture I	Ceramics & Sculpture II	Ceramics 3: The Pottery Wheel	AP 3D Design / Sculpture Independent Study
Graphic Design	Graphic Design I	Graphic Design II*	Graphic Design Independent Study	AP 2D Design I
<p><u>Additional Visual Arts Courses (added as schedule permits)</u></p> <p>Introduction to Animation Animation II</p> <p>Multimedia Printing & Design</p> <p><i>Hybrids of the above pathways and courses can be developed based on individual need/interest.</i></p> <p>*Independent Study offered upon completion of course sequence</p>				

Pre-Law and Justice Academy

Purpose:

The Pre-Law and Justice Academy offers opportunities to study and explore law and justice through a focused sequence of courses and extra-curricular experiences.

College Preparation:

Students in the Pre-Law and Justice Academy will develop a background in law and justice, analytical thinking, and analytical writing. Course pathways incorporate Social Studies and Language Arts courses.

Pre-requisites: *

Placement in the academy is limited. Student applications and assessments will be scored on provided rubrics and admission to the academy will be offered based on grades, skills and the results of the student's performance on the written entrance assessment.

* Note applications were due on Nov. 21, and entrance assessment were administered on December 5th.

Grade	Social Studies	ELA	Possible Electives	Partnerships
9	Honors World Cultures (Academy); AP World History	Honors English – (Academy)		Possible Partnerships: NACAC (National Association College and Career Counselors; Rutgers; Rowan; Middlesex CC; along with local law career organizations (NJLEEP, etc.).
10	US 1 Law/Survey Honors (Academy Cohort))	Honors English – Academy	Sociology; Journalism; African-American Experience Facing History Business and Law Public Speaking Philosophy Accounting	
11	US History 2 Honors Law/Mock Trial (Academy Cohort)	AP Language and Composition		
12	AP Government and Politics	Rutgers Expository Writing		

FRESHMAN SEMINAR

Freshman Seminar is a required full year course designed to provide 9th grade students with essential skills, supports, strategies, and understandings to maximize the high school experience in preparation for future goals. Students will explore opportunities, build relationships, expand social awareness, and develop effective work habits and study skills. Students will also expand awareness of self and others as dynamic citizens. Peer mentors will be assigned to each section of this course.

FRESHMAN SEMINAR MENTOR COURSE

Freshman Seminar Mentor Course is a 5-credit course available to 11th and 12th-grade students interested in making an impact within the school community through peer leadership and service. Students in this course will support 9th-grade peers through community-building interactions and service projects within Freshman Seminar. Mentors will learn and practice leadership and presentation skills, develop cultural competence and self-awareness, broaden relationships, and act as role models and collaborative partners. Entrance into this course is pending application (via Schoology), interview, and completion of a mandatory multi-day mentor training (summer). Required coursework includes participation in ongoing mentor training and facilitation of planned activities. This course is Pass/Fail and is not calculated in grade point average.

English Language Arts

Every student must take and pass a year of English each year that he/she attends the high school. English courses are sequential and prerequisites of each other so a student must take and pass English 1 before English 2, and English 2 before English 3, etc.

Students must have 20 credits in English in order to graduate (4 years of English at 5 credits per year).

English Department Course Offerings

<i>SUBJECT</i>	GRADE				<i>CREDITS</i>
	9	10	11	12	
English 1 – Honors	X				5.0
English 1 – Honors (Academy)	X				5.0
English 1 Academic	X				5.0
English 2 – Honors		X			5.0
English 2 – Honors (Academy)		X			5.0
English 2 – Academic		X			5.0
Advanced Placement Language and Composition			X	X	5.0
English 3 – Honors			X		5.0
English 3 – Academic			X		5.0
Advanced Placement Literature and Composition			X	X	5.0
Expository Writing (Honors)				X	5.0
Mythology & Composition			X		5.0
English 4 – Academic				X	5.0
English – Common Core Lab				X	5.0
Race and Gender in Literature				X	5.0
The Literature of Music		X	X	X	5.0
Independent Inquiry into the Humanities				X	5.0
Speculation in Literature				X	5.0
Creative Writing		X	X	X	5.0
Explorations in Expository Writing		X	X	X	2.5
Film Studies		X	X	X	5.0
Advanced Film Studies			X	X	5.0
Journalism		X	X	X	5.0
Journalism 2: Newspaper Production		X	X	X	5.0
Media Literacy		X	X	X	5.0
Public Speaking		X	X	X	2.5
Publishing and Marketing a Yearbook		X	X	X	2.5
Exploring Graphic Novels		X	X	X	2.5
SAT: Critical Reasoning and Problem Solving		X	X		2.5

5.0 Credits -Full Year

COURSES OFFERED TO FRESHMEN

Each freshman will be placed in one of the levels of English described below.

ENGLISH 1 (Honors) and ENGLISH 1 (Honors – Academy)

Full Year Grade 9 5 credits

This course covers a balance of reading, writing and communication skills. Literature covered will consist of drama, short stories, poetry, novels, and myths and legends. Writing will be taught in connection with the literature as well as in a separate unit. Students will be expected to perform at well-above average in reading and writing and to meet more stringent academic demands both inside and outside the classroom. This course should be taken by college-bound students who want to prepare themselves for the Honors program in tenth grade or for the more difficult elective courses in the twelfth grade. The Honors – Academy section(s) will emphasize issues in law and justice and add emphasis to argument and research.

Special Note: To take this course students must have the recommendation of an eighth grade counselor and language arts teacher, and must have been in the eighth grade accelerated class or have attained at least a B average in the regular program. Several other criteria include scoring in the above-average range in the PSAT 8/9 test, and advanced proficient scores on benchmarks and quarterlies. A writing portfolio may also be required before placement is finalized. Students must also have parental approval. Since this is an honors course, grades are weighted. **For the academy:** Students in this class should expect to explore the issue of law and justice through literature, class discussions and activities that will deepen their understanding of the texts, and to complete assignments designed to improve their writing skills and provide new insights into the works and topics they address.

ENGLISH 1 (Academic)

Full Year Grade 9 5 credits

This course covers reading, writing, and communication skills. The literature and writing are similar to that presented in English 1 Honors. Test-taking and study skills along with reading comprehension and vocabulary growth are also stressed. This course should be taken by students who are either college or non-college bound but who can perform at grade-level in reading and writing. It is the course to be taken by the majority of incoming freshmen. Standardized assessment strategies will be emphasized.

COURSES OFFERED TO SOPHOMORES

ENGLISH 2 (Honors) and ENGLISH 1 (Honors – Academy)

Full Year Grade 10 5 credits

This course covers novels, short stories, drama (contemporary and Shakespearean) and poetry, primarily using selections from American Literature. There is a concentration on various writing genres such as narrative, expository, argumentative, and literary analysis as well as developing vocabulary skills, and SAT preparation. This is an accelerated course.

Special Note: This is an honors course and requires the recommendation of the ninth grade English teacher. English 1 Honors or special permission of the department is a prerequisite. Parent approval is also required. A writing portfolio may be required before placement is finalized. Since this is an honors course, grades are weighted. **For the academy:** Students will continue to build research techniques (ex: guided research on the internet, interviews). Students will learn about the evolution of law in the community and the world and will get involved in community service activities, be exposed to industry through guest speakers, field trips, and authentic activities.

ENGLISH 2 (Academic)*Full year Grade 10 5 credits*

This course involves a full-year's integrated study of American Literature, language, and composition. Readings will be drawn primarily from American Literature. This literature will supply the foundation for creative and analytical writing in the course. A range of skills are either introduced or reintroduced in this course, including speaking, research, and writing structures. Standardized assessment strategies will be emphasized.

COURSES OFFERED TO JUNIORS

ADVANCED PLACEMENT: LANGUAGE AND COMPOSITION*Full Year Grades 11-12 5 credits*

This course will cover segments of British Literature as well as a wide range of nonfiction ranging from the eighteenth century to today. Incorporated into this accelerated course will be an Advanced Placement Language and Composition program which is designed to improve analytical writing and reading through rigorous study. Students who successfully complete this course will be well prepared to take the Advanced Placement Language and Composition exam in May and better prepared to handle the rigors of college-level reading and writing.

Special Note: This is an advanced course and limited to juniors and seniors who have taken English 2 Honors, English 3 Honors, or AP Literature and Composition, and who are recommended by their English teachers based on specific criteria. Parental approval is also required. A writing portfolio and/or a skills assessment may be required before placement is finalized. In addition, students who fail to meet reasonable standards of performance (70% grade or above prior to AP weighting) during any marking period will be immediately entered into an AP support program that may include mandatory extra help attendance and/or enrollment into AP Support homeroom. Students who take this class will sign an agreement stating that they fully understand the rigor of this course.

ADVANCED PLACEMENT ENGLISH: LITERATURE AND COMPOSITION*Full Year Grades 11-12 5 credits*

AP Literature and Composition is a demanding course that requires students to engage in the critical and close reading of literature. Students will not be focusing on *what* the author is saying; rather, analyzing *how* the author uses language to produce meaning. Over the course of the school year students will explore a diversity of genres, including poetry, short stories, dramas, novellas, and novels, as well as literary time periods from the sixteenth century Renaissance through the Post-Modern period of today. Though reading is the crux of the curriculum, students will also be responsible for various writing assignments including analytical, expository, and literary criticism essays, as well as the AP free response questions including the Style Analysis Essay, Poetry Analysis Essay, and Novel Response. All AP Literature students are also required to complete the senior research project. Students must be familiar with the conventions of Standard English in order to be successful writers. The class is student-centered and based on the assigned readings and core texts. Students must be prepared. Complete all readings on time and with care, as well as by participate in the literature-based class discussions. Students in AP will learn to think independently and challenge the ideas of their peers in a respectful manner. This is an accelerated course and should be taken by students who want to gain college credit by taking the Advanced Placement examination in May.

Special Note: This is a college-level course limited to juniors and seniors who have taken English 2 Honors, English 3 Honors, or AP Language and Composition, are recommended by their English teachers and who have fulfilled several criteria. Parental approval is also required. A writing portfolio may be required before placement is finalized. Students who take this class will sign an agreement that states that they fully understand the rigor of this course.

ENGLISH 3 (Honors)*Full Year Grade 11 5 credits*

This course covers a full year's study of various types of literature (novels, plays, poetry, essays) using primarily British literature readings. It is an accelerated course, and writing will be based on the literature read. General composition instruction and vocabulary study are included. Research is emphasized. This course should be taken by students who have successfully completed English 2 Honors and are planning to go on to Advanced Placement English in their senior year. (Students who have not had English 2 Honors must have approval of the department based upon established criteria.)

Special Note: This is an honors course and requires the recommendation of the tenth grade English teacher and parental approval. A writing portfolio may be required before placement is finalized. Since this is an honors course, grades are weighted.

ENGLISH 3*Full Year Grade 11 5 credits*

This course involves a full-year's integrated study of British Literature, language, and composition. Reading will be drawn primarily from British Literature. Analytical and creative writing will be generated by the readings. A range of skills are either introduced or reintroduced in this course, including speaking, research, and writing structures. SAT verbal skills and other standardized assessment strategies will be covered in this course.

ENGLISH 3 CCS*Full Year Grade 11 5 credits*

The literature and writing are similar to that presented in English 3 Academic and is designed to improve reading, writing, and study skills for Grade 11 students who have shown deficiencies indicated by the results of the PARCC Assessment and/or previous subject-area performance indicators. The content of the course consists of required whole-class instruction, practice, and assessments in conjunction with individualized Standards performance tasks necessary to improve deficiencies in basic skill areas identified from the student's English II class performance. This particular course is purposefully structured to allow for small group work and individual attention from the teacher to maximize skill acquisition and student engagement

MYTHOLOGY & COMPOSITION*Full Year Grade 11 5 credits*

In Mythology and Composition, students will study the mythology of various cultures and connect their own cultures and experiences with these mythologies through projects, literature, creative and analytical writing. As they study mythology, students will develop and hone their composition skills in preparation for their college work. Students will analyze and respond to the literature and create their own texts. This is a full-year, junior course for which students get one year of English credit.

COURSES OFFERED TO SENIORS**ADVANCED PLACEMENT: LANGUAGE AND COMPOSITION***Full Year Grades 11-12 5 credits*

This course will cover segments of British Literature as well as a wide range of nonfiction ranging from the eighteenth century to today. Incorporated into this accelerated course will be an Advanced Placement Language and Composition program which is designed to improve analytical writing and reading through rigorous study. Students who successfully complete this course will be well prepared to take the Advanced Placement Language and Composition exam in May and better prepared to handle the rigors of college-level reading and writing.

Special Note: This is an advanced course and limited to juniors and seniors who have taken English 2 Honors, English 3 Honors, or AP Literature and Composition, and who are recommended by their English teachers based on specific criteria. Parental approval is also required. A writing portfolio and/or a skills assessment may be required before placement is finalized. In addition, students who fail to meet reasonable standards of performance (70% grade or above prior to AP weighting) during any marking period will be immediately entered into an AP support program that may include mandatory extra help attendance and/or enrollment into AP Support homeroom. Students who take this class will sign an agreement stating that they fully understand the rigor of this course.

ADVANCED PLACEMENT ENGLISH: LITERATURE AND COMPOSITION

Full Year Grades 11-12 5 credits

AP Literature and Composition is a demanding course that requires students to engage in the critical and close reading of literature. Students will not be focusing on *what* the author is saying; rather, analyzing *how* the author uses language to produce meaning. Over the course of the school year students will explore a diversity of genres, including poetry, short stories, dramas, novellas, and novels, as well as literary time periods from the sixteenth century Renaissance through the Post-Modern period of today. Though reading is the crux of the curriculum, students will also be responsible for various writing assignments including analytical, expository, and literary criticism essays, as well as the AP free response questions including the Style Analysis Essay, Poetry Analysis Essay, and Novel Response. All AP Literature students are also required to complete the senior research project. Students must be familiar with the conventions of Standard English in order to be successful writers. The class is student-centered and based on the assigned readings and core texts. Students must be prepared. Complete all readings on time and with care, as well as by participate in the literature-based class discussions. Students in AP will learn to think independently and challenge the ideas of their peers in a respectful manner. This is an accelerated course and should be taken by students who want to gain college credit by taking the Advanced Placement examination in May.

Special Note: This is a college-level course limited to juniors and seniors who have taken English 2 Honors, English 3 Honors, or AP Language and Composition, are recommended by their English teachers and who have fulfilled several criteria. Parental approval is also required. A writing portfolio may be required before placement is finalized. Students who take this class will sign an agreement that states that they fully understand the rigor of this course.

EXPOSITORY WRITING (Honors)

Full year Grade 12 5 credits (and optional college credit through Rutgers)

This course is designed to fully immerse students into the expectations and rigor of college writing. Based on *Expository Writing 101* at Rutgers University, which is a required course, students will read, comprehend, analyze, and evaluate non-fiction articles intended for a college audience and make connections between ideas derived from a variety of texts. Through the process of writing multiple drafts of expository essays, students will develop independent theses that respond to the ideas and information in the texts they read. Students will produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. Primary texts for the course will consist of non-fiction academic essays that have been pre-approved by the Rutgers Writing Program. Texts will be provided either by Rutgers or will be available on the web. Supplementary texts may include, but will not necessarily be limited to, required Summer Reading book(s) and supplementary grammar materials. Course content fulfills the English 4 requirement for seniors. Enrollment is based on teacher recommendation, test proficiency, and prior English performance.

Special Note: This course has an optional college credit component in which students can submit their cumulative writing portfolio for Folder Review in the Rutgers Writing Program. Students who pass can purchase college credit from Rutgers.

ENGLISH 4*Full Year Grade 12 5 credits*

This course will blend the teaching of literature and composition into a full-year course. Readings for this course will be drawn from a variety of genre including but not limited to Greek and Shakespearean drama, and contemporary world literature.

RACE AND GENDER IN LITERATURE*Full Year Grade 12 5 credits*

From African Americans, East Asian/South Asian Americans, Native Americans, Latinos, and “white” ethnics, students will understand how cultural texts’ impact on race is incredibly important in an era in which students are constantly bombarded with issues of race and gender in music, television, films, and books. . Students in this course will benefit greatly from the opportunity to develop tools to analyze how literature and popular culture both reinforce and resist dominant notions of race, gender, and various other identities. Through novels and various non-fiction readings, students will explore themes such as ethnic and racial stereotypes, ethnicity and gender, assimilation versus cultural heritage/memory, ethnogenesis and translating experiences into a new culture and language, responses to myths about immigration, social class, and the “American Dream.” This is a full-year, senior course for which students get one year of English credit.

SPECULATION IN LITERATURE*Full Year Grade 12 5 credits*

J.R.R. Tolkien's Gollum, Shakespeare's fairies, Stephen King's Cujo, Suzanne Collins' Katniss Everdeen, and Ray Bradbury's Martians, all inhabit the highly imaginative world of speculative fiction - a genre that includes science fiction, fantasy and urban fantasy, horror, utopian, and dystopian fiction. Speculative fiction often allows writers and readers to wrestle with complex social and psychological issues ranging from genetic engineering to predestination and personal freedom to forms of government, often in far-reaching and fantastical settings which is highly engaging. This course will help students develop discussion and critical thinking skills as they negotiate complex issues of government, change, alternate identities, fear of the unknown, climate change, imperialism as expressed by well-known literary works. This is a full-year, senior course for which students get one year of English credit.

ENGLISH Common Core Lab*Full Year Grade 12 up to 5 credits*

This is a full-year course for any students who have not met the state testing requirements for graduation. The program combines reading, writing, study and test-taking skills. In addition, Modern World Literature selections will be included. Other seniors who would benefit from a full-year remedial program may also be scheduled for this course subject to department approval. This course will be taken *in addition* to a senior English class.

INDEPENDENT INQUIRY INTO THE HUMANITIES*Full year Grade 12 5 credits*

This is a full-year course that enables students to investigate a specific area of interest in the humanities under the guidance of their teacher as a mentor. At the same time it allows students the opportunity to select an area of interest in literature and explore the elements that define or identify a culture, civilization, or era through its major texts. Although primarily designed to suit the needs of students who have taken AP Language and Composition as well as AP Literature and Composition, this course would benefit seniors who are self-directed and enjoy the experience of discovery.

English Electives

ADVANCED FILM STUDIES

Full Year Grades 10-12 5 credits Prerequisite: Film Studies

The class will further explore film history (tracing genres, movements and styles), film theory (covering essential approaches to interpreting films), criticism (ways to critically think and write about movies), the study of filmmaking (a more detailed study of production—including pre and postproduction) and the actual practice and implementation of the production processes (shooting and editing). In addition to screening a variety of films and scenes, students will also read film commentary and criticism in preparation for viewing and analysis. Students will write critically about films and film criticism. Finally, students will produce their own scenes and ultimately their own film.

CREATIVE WRITING

Full Year Grades 10-12 5 credits

This course will reinforce students' ability to write creatively in all genres. During the year, students will design a writing portfolio representing a variety of literary forms, increase their awareness of the publishing process, incorporate the conventions of the performing arts into original scripts, and investigate college programs and career paths related to the creative arts.

THE LITERATURE OF MUSIC

Full Year Grades 10-12 5 credits

This course will explore poetry of music from Jazz and the Blues to Rock and Roll, Rap and world and the deep roots of music in literature. The Literature of Music provides students with a solid foundation in the study of formal analysis of literature, its role in music, and critical terminology in both genres. Each unit of this class will strive to create an understanding and appreciation of the historical, aesthetic, and cultural aspects of the music in the literature and the literature found in music. Furthermore, this course will allow students to strengthen and build upon their poetic/lyrical writing styles, both formal and creative. Ultimately, students will gain a greater appreciation of writing poetry, creating literature and lyrics through their own unique, individual experiences

21st CENTURY EXPOSITION

Half Year Grades 10-12 2.5 credits

This half-year elective is designed to allow students to hone writing skills. Students will read, comprehend, analyze, and evaluate non-fiction articles and media leading to writing responses. Students will produce clear and coherent writing and digital compositions in which the development, organization, and style are appropriate to task, purpose, and audience. **Special Note:** This course is for elective credit ONLY and is NOT affiliated with our Rutgers Expository Program. This course is NOT eligible for college credits.

EXPLORING GRAPHIC NOVELS

Half Year Grades 10-12 2.5 credits

This course is a full-year introduction to the rich variety of graphic novels from around the world. Students will read and analyze works in a literary framework while learning about the history, fundamentals, and genres within the graphic novel universe. This course will appeal to visual learners, fans of art and comics, and students who enjoy reading works not typically found in traditional English courses.

FILM STUDIES

Full Year Grades 10-12 5 credits

Students will study film as literature. By using comprehension and analysis skills such as making predictions, making inferences and more. Students will read, discuss, and write about great films. Film

and video have become prevalent and important media in our culture, and developing a film/video vocabulary will help students to more deeply appreciate film and to have more control of their response to video and film they encounter in the world. Visual learners, future filmmakers, and film lovers will greatly benefit from this course.

JOURNALISM

Full Year Grades 9-12 5 credits

Features. Movie/Music Reviews. Sports. Editorials. Columns. Headlines. Captions. Layout. Elect a course in journalism and learn how to write for newspapers, magazines, radio and television. Conduct interviews, evaluate headlines, analyze political cartoons, and compare the same news story in a variety of print, radio, and television formats. Write, edit, and publish your work in the *Chieftain*, the school newspaper. Record your news writing on audio and videotape. Elect this course and share in a unique journalistic experience.

JOURNALISM 2: NEWSPAPER PRODUCTION

Full Year Grades 10-12 5 Credits

Prerequisite: Journalism

This course is designed for students interested in being editors working on interviews, news and feature stories; game, novel, music, and film reviews; and sports stories for the *Chieftain*, the high school newspaper. Researching topics by using local papers and other student newspapers; conducting interviews with teachers, students, and administrators; and contributing ideas to layout and design are just some of the hands-on activities the course will include. An inquiring mind, adventurous spirit, and interest in writing and editing are useful tools for this course.

MEDIA LITERACY

Full Year Grades 11-12 5 credits

On average, the average American experiences over 3000 media messages (ads) a day, and these messages can have a powerful effect on our thoughts, decisions, and actions. This course will try to make sense of it all. In this course, students will explore how organizations use commercials, social media, websites, print ads, billboards, movies, and TV shows to influence behaviors. Students will also create real hands-on campaigns to initiate positive change within our own community. Students who are interested in becoming more informed consumers, citizens, and critical thinkers will benefit greatly from this course.

PUBLIC SPEAKING

Half Year

Grades 10-12

2.5 credits

This course covers the communication process and the four levels of communication: self-communication, one-to-one, small group, and one-to-many. Students will be expected to prepare and deliver a variety of oral presentations. Participation in group activities will be required in addition to a final oral presentation. This course should be taken by students who want to develop new sensitivity and skills in communicating with others on individual, social, and career levels.

Special Note: Outside reading and writing for speech preparation will be required.

PUBLISHING AND MARKETING A YEARBOOK

Full year Grade 10-12 2.5 credits in English and 2.5 credits in Business

This course is designed to fully immerse students into the entire process of creating and selling a yearbook. Students will learn the organizational roles and responsibilities in yearbook production, how to create pages, designing to enhance a theme, basic elements of design, writing for a publication, ad sales and design, yearbook sales and design, legal issues related to copyright, leadership skills, and how to assess and evaluate the completed publication. Through both hands-on application and simulated experiences students will be involved in all aspects of creating, designing and selling. This course will

offer 2.5 credits as an English elective and 2.5 credits as a Business elective. Students who are drawn to a particular aspect of the program, either the business side or the creation side of yearbook may opt to complete an additional 2.5 credits in either Business or English, respectively either through the Student Option program or an Independent Study. Student participation in the afterschool Yearbook program is not mandatory. (Special note: these are elective credits in English and do not replace the required courses for credit to meet the high school graduation requirement for English. The business credits are elective credits that, if accompanied by the Independent Study/Student Option program specific to this course would, then meet the CTE/Practical Arts requirement of 5 credits in a CTE/Practical Arts for high school graduation.)

SAT: CRITICAL REASONING AND PROBLEM SOLVING

Full Year Grades 10 2.5 credits

Prerequisite: *Students must have a score from 45-55 on both the Mathematics and English sections of the ninth grade administration of the PSAT.*

Students enrolled in this course will have a unique opportunity to improve critical reasoning and problem solving skills in mathematics and literacy to help improve scores on the SAT Evidence-Based Reading and Mathematics sections of the exam. In Language Arts students will practice evidence-based reading, reading comprehension, reasoning and vocabulary. In Mathematics students will focus on problem-solving skills and strategies, content skills and logical reasoning.

Social Studies

Social studies is the integrated study of the social sciences and humanities to promote civic competence. Within the school program, social studies provides coordinated, systematic study drawing upon such disciplines as anthropology, archaeology, economics, geography, history, law, philosophy, political science, psychology, religion, and sociology, as well as appropriate content from the humanities, mathematics, and natural sciences. The primary purpose of social studies is to help young people develop the ability to make informed and reasoned decisions for the public good as citizens of a culturally diverse, democratic society in an interdependent world. (National Council for the Social Studies)

At Piscataway High School some Social Studies courses are sequential and have a prerequisite policy. Students must take and pass U.S. History 1 before U.S. History 2. The requirements for graduation include three years of Social Studies: one year of World Cultures and two years of U. S. History. Each student must have 15 credits in Social Studies in order to graduate. (5 credits each in World Cultures, U.S. History 1, and U.S. History 2.) All new ninth grade students take Honors World Cultures.

Social Studies Department Course Offerings

<i>SUBJECT</i>	GRADE				<i>CREDITS</i>
	9	10	11	12	
Honors World Cultures	X				5.0
World Cultures*		X	X	X	5.0
Honors U.S. History 1		X			5.0
U.S. History 1		X			5.0
U. S. 1 Survey/Law		X			5.0
Honors U.S. History 2			X	X	5.0
U.S. History 2			X	X	5.0
U.S. History 2 Survey/Economics			X	X	5.0
U.S. History 2 Survey/International Relations			X	X	5.0
U.S. History 2 Survey/Law/Mock Trial			X	X	5.0
Advanced Placement: US History**			X	X	5.0
AP United States Government and Politics			X	X	5.0
Advanced Placement European History		X	X	X	5.0
Advanced Placement World History	X	X	X	X	5.0
The History of Psychology		X	X	X	5.0
Advanced Placement: Psychology		X	X	X	5.0
The African American Experience			X	X	5.0
Sociology+		X	X	X	2.5
Facing History and Ourselves+		X	X	X	2.5

**credit recovery via approved online programs*

*** 11th Grade – may fulfill US History 2 requirement*

+semester course possible companion class for Personal Financial Literacy or Sociology

5.0 Credits -Full Year

HONORS WORLD CULTURES and HONORS WORLD CULTURES (ACADEMY)

Full Year Grade 9 (plus approved upperclassmen for transfers and credit recovery) 5 credits

This accelerated course challenges the students to use critical thinking skills to collect, interpret, and synthesize course-related data as they explore the economic, social, and political history of regions around the world. These regions include: Europe, Latin America, the Middle East, Africa, and Asia. Students will be held to a high standard of performance in the completion of assignments, activities, and projects. The skills and activities developed in this class will provide the foundation for the requirements of Advanced Placement courses. This course is for 9th graders in the Freshman Foundation Program only. The Academy section(s) will emphasize law and justice as students move through the Honors World Cultures course.

WORLD CULTURES

Credit Recovery Grade 10, 11, 12 5 credits

World Cultures credits are given to students who successfully complete an approved credit recovery course online via NJ Virtual School or Educere. See counselor for details and cost.

ADVANCED PLACEMENT WORLD HISTORY*

Full Year Grades 9-12 5 credits

Prerequisite: *Advanced Placement World Cultures available only to select students & approval by Department Chair*

Advanced Placement World History enables students to develop 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. The course highlights the nature of changes in international frameworks and their causes and consequences, as well as comparisons among major societies. It emphasizes relevant factual knowledge used in conjunction with leading interpretive issues and types of historical evidence. The structure of the course involves lectures, class discussions, plus in-depth readings of interpretative and historiographical materials.

Special Note: Admission is limited to select group of college ready incoming freshman having met the rigorous selection criteria along with a written recommendations of a previous Social Studies teacher and by approval of the department chair. Designated criteria include standardized test results, grades and a writing sample before placement is finalized. *Summer Assignment is required

HONORS U.S. HISTORY 1

Full year Grade 10 5 credits

Honors United States History 1 is a 5-credit, full-year course designed to fulfill five credits of the United States History 1 graduation requirement. This accelerated Honors History course will provide Piscataway High School students with an in-depth study of United States History from early colonial times through the turn of the twentieth century. By taking this course, students will understand the various cultural, economic, geographic, intellectual, political, psychological, and social factors that contributed to the development of the United States. Students will interpret historical events, empathize and sympathize to the issues raised in each unit, and research major events that occurred in each unit. Honors U.S. 1 is recommended for students willing to do considerable amount of challenging readings and activities as well as independent research that will illuminate varying historical perspectives. This course is aligned with the AP U.S. History curriculum to prepare students with the content and skills to succeed in advanced placement courses in social studies.

Special Note: Admission is limited to those students having written recommendation of a previous Social Studies teacher and by approval of the Department Chair. Designated criteria including a writing sample is required before placement is finalized.

U.S. HISTORY 1

Full year Grade 10 5 credits

United States History 1 is a 5-credit course designed to fulfill five credits of the United States History 1 graduation requirement for the state of New Jersey. The course will engage students in the study of United States History from early colonial times through the turn of the twentieth century. Students will explore U. S. History using a variety of skills and activities that will prepare them for the challenges of today's world and workplace.

U.S. HISTORY 1 SURVEY/LAW IN AMERICA

Full Year Grade 10 5 Credits

This full year course will provide students with a general background in American history from the Age of Exploration to 1900. Major themes and personalities will be examined in a general fashion in order to acquaint the student with the important elements of the American past. At the same time students will be prepared for additional in depth study of the accompanying Law in America course.

The scope of this course is to enlighten students in multiple areas of Civil Law (law related to the private rights of individuals, groups or businesses). This course covers a large variety of topics from small claims court (otherwise known as "The People's Court") to large lawsuits.

This course offers young adults a knowledge base in their rights and responsibilities as individuals. It can help in making important life decisions such as making purchases (understanding warranties, etc.), obtaining automobile insurance, hiring attorneys, etc. During this course students will participate in group discussions, mock trials, and a variety of other creative and thought-provoking activities.

ADVANCED PLACEMENT U.S. HISTORY*

Full year Grades 11-12 5 credits

Prerequisite: *U.S. History 1 Honors – May be used to fulfill U.S. History 2 requirement*

Advanced Placement U.S. History is a 5-credit, full-year course fulfilling the U.S. 2 graduation requirement. This course will serve as a review first of the U.S. History 1 topics ranging from Colonial America to Imperialism, followed by an in-depth look at America in the 20th Century. Students will be preparing to take the national Advanced Placement History test in May.

Special Note: Admission is limited to those students having written recommendations of a previous Social Studies teacher and by approval of the department chair. Designated criteria including a writing sample is required before placement is finalized. *Summer Assignment is required

HONORS U.S. HISTORY 2

Full year Grades 11-12 5 credits

Prerequisite: *U.S. History 1*

This accelerated course continues to follow the development of the United States in the Twentieth century. Areas of study will include but is not limited to Progressivism, Industrialization and economic growth, Immigration, Imperialism, The Great Depression, World War II, the Cold War politics, Kennedy and the New Frontier, Johnson and the Great Society, the upheaval of the 1960s along with the Nixon, Carter, Reagan, Bush, and Clinton years and beyond. In addition, world events/issues that have shaped American policy at home and abroad will be studied.

Special Note: Admission is limited to those students having written recommendations of a previous Social Studies teacher and by approval of the department chair. Designated criteria including a writing sample is required before placement is finalized.

U.S. HISTORY 2*Full Year Grades 11-12 5 Credits****Prerequisite:*** *U.S. History 1*

United States History 2 is a 5-credit, full-year course designed to fulfill five credits of the United States History 2 graduation requirement for the state of New Jersey. This course will engage students in the study of United States History from the early 1900s through the turn of the twenty-first century. Students will explore historic themes such as Immigration, Urbanization, Foreign policy, Civil rights and social change, the role of technology in the economy, among others. Students will demonstrate their understanding of the past and present using a variety of skills and activities that will prepare them for the challenges of today's world and workplace.

U.S. HISTORY 2 SURVEY/ECONOMICS*Full Year Grades 11-12 5 credits****Prerequisite:*** *U.S. History 1*

This course is designed to continue and complete the study of U.S. History which was started in **U.S. History 1**. Students will be exposed to the many and varied aspects of twentieth century United States history with emphasis placed on the overall concepts and trends of the period. At the same time students will be prepared for additional in-depth study of the accompanying Economics course.

This is an introductory course designed for all students who are interested in the theoretical, historical, and practical basis of economics. It will provide a sound background for further studies and/or practical or personal business use. Major areas of study include: Monetary Systems, Supply and Distribution, Taxation, Credit Systems, Investments, Capitalization, Economic Classes, International Trade, Scams and Frauds, and the Dynamics of a Changing Global Economy.

U.S. HISTORY 2 SURVEY/LAW AND MOCK TRIAL*Full Year Grades 11-12 5 credits****Prerequisite:*** *U.S. History 1*

This course is designed to continue and complete the study of U.S. History which was started in **U.S. History 1**. Students will be exposed to the many and varied aspects of twentieth century United States history with emphasis placed on the overall concepts and trends of the period. At the same time students will be prepared for additional in-depth study of the accompanying Law and Mock Trial course.

This course is designed to provide students in grades 11 and 12 with an in-depth understanding and unique perspective of the criminal justice system, while encouraging active participation in all areas of the course. Particular focus will be placed upon the component elements of the criminal justice system including the role and function of the police, courts, and corrections. Procedural rights of individuals will be discussed as they relate to the individual and society in general. Additionally, elements of a crime, as well as crime categories and defenses to crime, will also be discussed and analyzed. Professionals in the field of law and related law enforcement careers will be utilized as speakers when applicable and available. Special attention will be placed upon the pre-trial and trial stages of the criminal justice process, affording students an opportunity to engage in related role-playing activities, while preparing for voluntary participation in the New Jersey Bar Association sponsored Mock Trial Competition.

U.S. HISTORY 2 SURVEY/INTERNATIONAL RELATIONS*Full Year Grades 11-12 5 credits****Prerequisite:*** *U.S. History 1*

This course is designed to continue and complete the study of U.S. History which was started in **U.S. History 1**. Students will be exposed to the many and varied aspects of twentieth century United States history with emphasis placed on the overall concepts and trends of the period. At the same time students will be prepared for additional in-depth study of the accompanying International Relations course.

At the same time students will be prepared for additional in-depth study of the accompanying International Relations course. This course is designed for all students interested in the study of contemporary affairs and issues of nations around the globe. This course will highlight the relationships and conflicts between nations in the world today. Students enrolled in the International Relations course will be actively encouraged to participate in the Model United Nations Program.

SOCIAL STUDIES ELECTIVES

The following courses DO NOT fulfill the U.S. 1 or the U.S. 2 graduation requirements. No Social Studies electives will be offered unless there are a sufficient number of students requesting the course.

ADVANCED PLACEMENT EUROPEAN HISTORY*

Full year Grades 10-12 5 credits

The study of European history since 1450 introduces students to cultural, economic, political, and social developments that played a fundamental role in shaping the world in which they live. Without this knowledge, we would lack the context for understanding the development of contemporary institutions, the role of continuity and change in present-day society and politics, and the evolution of current forms of artistic expression and intellectual discourse. In addition to providing a basic narrative of events and movements, the goals of the AP program in European History are to develop (a) an understanding of some of the principal themes in modern European History, (b) an ability to analyze historical evidence and historical interpretation, and (c) an ability to express historical understanding in writing.

Special Note: Admission is limited to those students having written recommendations of a previous Social Studies teacher and by approval of the department chair. Designated criteria may include a writing sample before placement is finalized. *Summer Assignment is required

ADVANCED PLACEMENT UNITED STATES GOVERNMENT and POLITICS*

Full Year Grades 11-12 5 credits

Prerequisite: *U.S. History 1*

Advanced Placement United States Government and Politics introduces students to key political ideas, institutions, policies, interactions, roles, and behaviors that characterize the political culture of the United States. The course examines politically significant concepts and themes, through which students learn to apply disciplinary reasoning assess causes and consequences of political events, and interpret data to develop evidence-based arguments. Students will be preparing to take the national Advanced Placement History test in May.

Special Note: Admission is limited to those students having written recommendations of a previous Social Studies teacher and by approval of the department chair. Designated criteria including a writing sample is required before placement is finalized. *Summer Assignment is required

THE HISTORY OF PSYCHOLOGY

Full Year Grades 10-12 5 credits

Psychology is the study of the individual behavior and personality of people. Content areas are frustration, relationships, motivation, child and adolescent development, as well as many other areas. The main focus of the course will be the analysis and application of relevant psychological concepts.

ADVANCED PLACEMENT PSYCHOLOGY*

Full Year Grades 10-12 5 credits

Advanced Placement Psychology is a continuation of the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students will be exposed to the psychological facts, principals, and phenomena associated with the major sub fields within psychology. The course will be guided by the AP Psychology syllabus and will stress critical thinking, reading, and writing

within the context of scientific methodology and questioning. The course is designed to help students successfully complete the Advanced Placement Psychology Exam.

Note: *Summer Assignment is required

Note: This course and is open to all Sophomore, Junior and Senior students who meet the requirements set by the Social Studies Department in conjunction with a teacher recommendation.

THE AFRICAN-AMERICAN EXPERIENCE

Full Year Grades 11-12 5 credits

The course objectives of *The African-American Experience* are to introduce students to the social, political, and economic development of African-American culture. From a historical standpoint, the course investigates and researches the aspects of history in which African Americans, as either a culture or as individuals, have made significant contributions to American Society. In addition, the course will study, discuss, and debate the current issues taking place in American society today and ways to come to a better understanding or resolution of those issues. *The course is discussion oriented and taught in a college seminar style which includes a variety of special guest speakers, and student directed podcasts.*

SOCIOLOGY

Half Year Grades 10-12 2.5 credits

Sociology is a social science that strives to understand society through an in-depth study of *patterns of human behavior*. The course will cover topics such as research design, culture, gender, deviance, crime, the media, communication, family, socialization, status, relationships, the state and a variety of other associated areas. Group associations and the impact they have on behavior are the main focus of the course. Emphasis will be placed on project-based assessment and learning, class activities to simulate course concepts including in-depth study of current social issues related to the course material.

FACING HISTORY and OURSELVES

Half Year Grades 10-12 2.5 credits

Facing History and Ourselves traces the history of discrimination, prejudice, and their escalation into violence and genocide worldwide in the twentieth century. The course examines global history focusing on how people have marginalized and ultimately sought to separate themselves in extreme ways from one another. It considers the role of perpetrators, victims, bystanders, as well as rescuers and resisters as it looks at the role that individuals play in history. Genocide in Europe, Asia, Africa, and the Americas is examined in depth in this course, as are other many examples of ethnic cleansing, religious and racial hatreds, and violations of human rights through present-day events.

Mathematics

Mathematics Department Course Offerings

<i>SUBJECT</i>	GRADE				<i>MATH</i>
	9	10	11	12	<i>CREDITS</i>
Algebra 1	X				5.0
Honors Geometry	X				5.0
Geometry	X	X			5.0
Essentials of Geometry		X			5.0
Honors Algebra 2		X			5.0
Algebra 2		X	X		5.0
Essentials of Algebra 2			X		5.0
Honors Trigonometry and Analytic Geometry			X		5.0
Trigonometry and Precalculus*			X	X	5.0
Topics in Precalculus			X	X	5.0
Discrete Mathematics			X	X	5.0
Applied Statistics			X	X	5.0
College Algebra*				X	5.0
Honors Calculus				X	5.0
Advanced Placement Calculus AB				X	5.0
Advanced Placement Calculus BC				X	10.0
Advanced Placement Statistics		X	X	X	5.0

Mathematics Department (Non-Math Credits)

<i>SUBJECT</i>	GRADE				<i>GENERAL</i>
	9	10	11	12	<i>CREDITS</i>
Algebra 1 Lab	X				5.0
Algebra 2 Lab			X	X	5.0
Geometry Lab		X	X		5.0
Common Core Math 12A				X	2.5
Common Core Math 12B				X	2.5
SAT: Critical Reasoning and Problem Solving		X			2.5
Introduction to Computer Science**	X	X	X	X	5.0
JCAIML			X	X	5.0
Advanced Placement Computer Science A		X	X	X	5.0
Advanced Placement Computer Science Principles		X	X	X	5.0

** Middlesex County College High School Scholars Course (dual enrollment)*

***May be used to satisfy the 21st Life & Career graduation requirement*

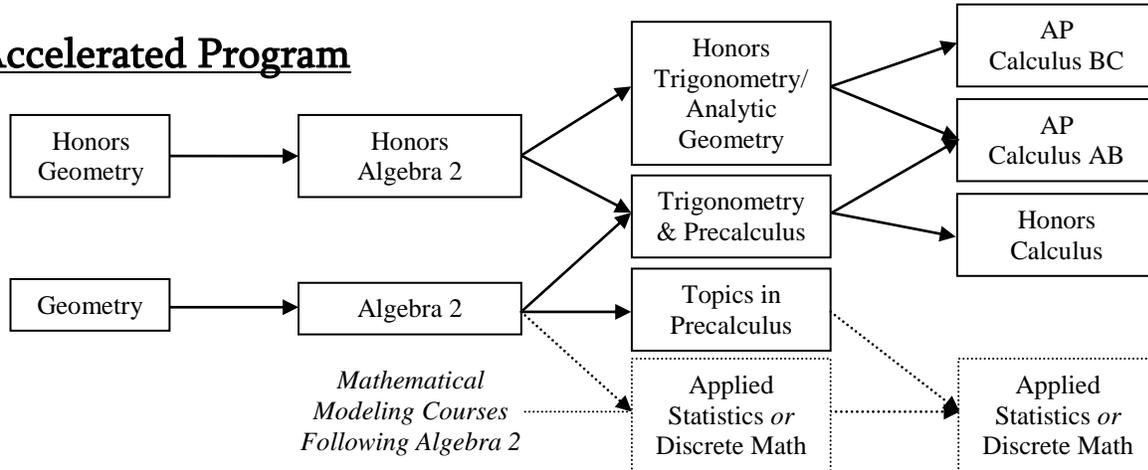
2.5 Credits - Semester Course

5.0 Credits - Full Year Course

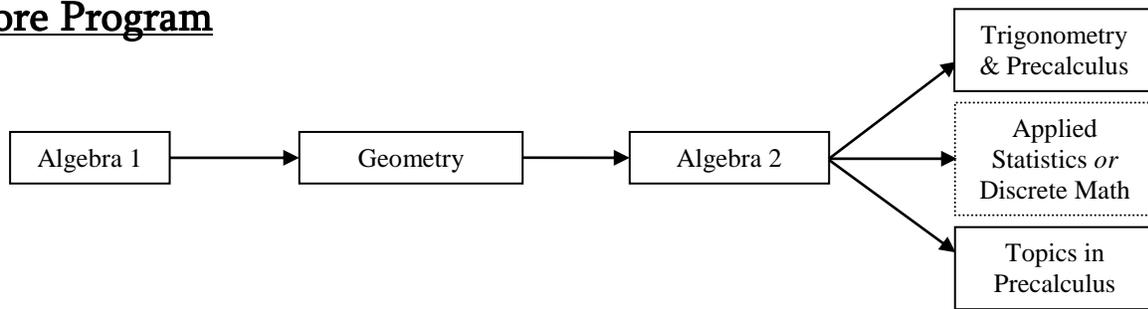
Piscataway High School Common Mathematics Course Sequences

*The sequences below do not represent all possible course options available at each level.
Please refer to the Course Offerings Booklet for complete advisement information.
Students are encouraged to move to more challenging sequences when appropriate.

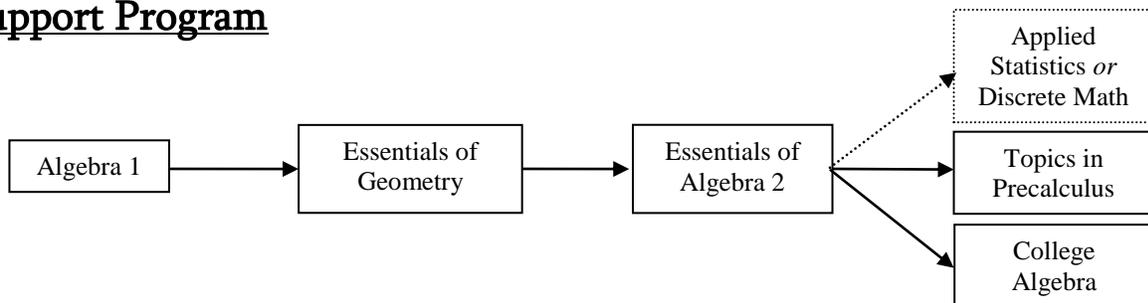
Accelerated Program



Core Program



Support Program



Mathematics Elective Courses

Statistics

- Applied Statistics: Open to any student who has completed Algebra 2
- AP Statistics: Can be taken following Algebra 2 with teacher recommendation or following any course after Algebra 2 *except* Topics in Precalculus

Computer Science

- Introduction to Computer Science: Open to all interested students
- AP Computer Science A: Can be taken following AP Computer Science Principles or special permission from the instructor
- AP Computer Science Principles: Open to interested students who have completed Geometry or Honors Geometry or students who have completed Introduction to Computer Science with their instructor's recommendation.
- Honors JCAIML: Can be taken following AP Computer Science A

Discrete Mathematics

- Discrete Math: Open to any student who has completed Algebra 2

ALGEBRA 1 LAB*Full year Grade 9 5.0 Credits*

This course is designed to provide additional individualized support to students as they take Algebra 1. Emphasis for Algebra 1 is on understanding and applying the New Jersey Student Learning Standards for Mathematics to help students to succeed.

Credit will be given for this course; however the credit **will not count** towards the 15 credits of mathematics required for graduation.

GEOMETRY LAB*Full year Grade 10 & 11 5.0 Credits*

This course is designed to provide additional individualized support to students as they take Algebra 1. Emphasis for Geometry is on understanding and applying the New Jersey Student Learning Standards for Mathematics to help students to succeed.

Credit will be given for this course; however the credit **will not count** towards the 15 credits of mathematics required for graduation.

ALGEBRA 2 LAB*Full year Grade 11 & 12 5.0 Credits*

This course is designed to provide additional individualized support to students as they take Algebra 1. Emphasis for Algebra 2 is on understanding and applying the New Jersey Student Learning Standards for Mathematics to help students to succeed.

Credit will be given for this course; however the credit **will not count** towards the 15 credits of mathematics required for graduation.

COMMON CORE MATH 12 A/B*Semester Grade 12 2.5 Credits Each*

Support courses are required for students who have not shown proficiency on district courses and/or state standardized assessments. An individualized approach is used to diagnose specific weaknesses in each course and to create plans for remediation. This program is meant to support students in achieving mastery of the concepts covered in each course in preparation for future success in mathematics and on state assessments.

Emphasis for Algebra and Algebra 2 students is on understanding and applying the New Jersey Student Learning Standards for Mathematics. For 12th grade students, the focus is on meeting the standards required by the state graduation requirements through success on a standardized assessment or a portfolio submission. Topics will vary depending on the course, but problem solving strategies and test preparation skills will be included at each level.

Credit will be given for this course; however the credit **will not count** towards the 15 credits of mathematics required for graduation.

ALGEBRA 1*Full year Grade 9 5.0 Credits*

This course is designed as the first course in a traditional program for all students who are required to take three or more years of college preparatory mathematics. Initially, concepts mastered in the previous math course are expanded. In addition, this course covers solving and graphing equations and inequalities, solving word problems, graphing on a coordinate plane, solving simultaneous equations, properties of exponents, operations with polynomial expressions, working with quadratic functions, and data analysis.

Students in this class may also be assigned to an Algebra 1 Lab class based on performance in 8th grade mathematics.

HONORS GEOMETRY

Full year Grade 9 5.0 Credits

Prerequisite: Placement from 8th grade Honors Algebra 1 or 9th grade Algebra 1 with teacher recommendation

This course is for mathematically-oriented students who desire an extensive and comprehensive treatment of the topics of geometry. This course, along with Honors Algebra 2, is designed for students who plan to take the maximum units of mathematics in high school.

Because this is an honors course the grades are weighted for GPA purposes.

Students selecting Honors Geometry **must** check the district web site in June to obtain a summer preview assignment, which is due on the first day of school in September.

GEOMETRY

Full year Grades 9-10 5.0 Credits

Prerequisite: Algebra 1

Geometry, along with Algebra 1 and Algebra 2, serves as the starting point for further work in mathematics. The course covers concepts such as deductive reasoning, transformations, isometry, congruence, similarity, polygons and circles, area and volume, constructions, and applications to plane and solid figures.

Geometry is designed for students who successfully completed Algebra 1 in Grade 8 or 9. In addition to Geometric topics, the course includes an ongoing review of Algebra 1 topics in order to prepare students adequately for Algebra 2. Students who perform exceptionally well in Geometry earn the option to take a placement exam for Honors Algebra 2.

ESSENTIALS OF GEOMETRY

Full year Grade 10 5.0 Credits

Prerequisite: Algebra 1

This course is designed as a second course in a college preparatory program for those students who previously had difficulty in mathematics. Basic concepts from Geometry will be covered including deductive reasoning, transformations, isometry, congruence, similarity, polygons and circles, area and volume, constructions, and applications to plane and solid figures.

HONORS ALGEBRA 2

Full year Grade 10 5.0 Credits

Prerequisite: Placement from Honors Geometry or Geometry with successful placement exam and teacher recommendation.

This course is for mathematically oriented students who desire an extensive and comprehensive treatment of Algebra 2 topics. This course is designed for students who plan to take the maximum units of mathematics in high school. Students who plan to take this course should have had an average of "A" or "B" in Algebra 1.

Because this is an honors course the grades are weighted for GPA purposes.

Students selecting Honors Algebra 2 **must** check the district web site in June to obtain a summer preview assignment, which is due on the first day of school in September.

ALGEBRA 2

Full Year Grades 10-11 5.0 Credits

Prerequisite: Geometry

This course completes a traditional three-year college preparatory sequence. It begins with a brief review of concepts learned in Algebra 1 and includes more advanced topics such as quadratic equations and functions, polynomial equations and functions, properties of exponents, logarithms, verbal

problems, and arithmetic and geometric sequences and series. The course is for potential college candidates who wish to benefit from the study of a rigorous secondary mathematics course. Students in grade 11 who previously had difficulty in mathematics should consider enrolling in Essentials of Algebra 2.

ESSENTIALS OF ALGEBRA 2

Full Year Grade 11 5.0 Credits

Prerequisite: *Geometry or Essentials of Geometry*

This course completes a traditional three-year college preparatory sequence for those students who previously had difficulty in mathematics. Algebraic manipulations, factoring, graphing linear equations, and other important concepts introduced in Algebra 1 will be reviewed. New topics include advanced work with quadratic equations, polynomial functions, properties of exponents, exponential functions, and problem-solving using calculators.

Students in this class may also be assigned to an Algebra 2 Lab class based on past performance in Geometry and Algebra 1.

NOTE: This course does not satisfy the prerequisite requirement for either Trigonometry and Precalculus or Trigonometry and Analytic Geometry (Honors).

HONORS TRIGONOMETRY AND ANALYTIC GEOMETRY

Full Year Grade 11 5.0 credits

Prerequisite: *Honors Algebra 2 or Algebra 2 with teacher recommendation*

This course is a must for the serious math student and prerequisite for the study of calculus. Topics covered include trigonometric functions, conic sections, analytic proofs, polar coordinates, graphs of higher degree equations, and rotation of axes. This course provides a more detailed and rigorous treatment of the subject than Trigonometry and Precalculus. This course is a prerequisite for students who plan to take either Advanced Placement Calculus course.

Because this is an honors course, the grades are weighted for GPA calculation.

TRIGONOMETRY AND PRECALCULUS

Full Year Grades 11-12 5.0 credits

Prerequisite: *Honors Algebra 2 or Algebra 2 with teacher recommendation*

This course is offered in cooperation with Middlesex County College. Four credits of Precalculus at Middlesex County College may be earned simultaneously with 5 credits earned at Piscataway High School. These credits may be transferable to other institutions.

The course emphasizes those topics that best prepare a student for a first course in calculus. The areas of study include algebraic and trigonometric functions and their graphs. Emphasis is placed on polynomials, rational, exponential, and logarithmic functions. The course also includes an introduction to limits, the derivative, and solutions of multi-variable linear systems if time permits. Graphing calculator use is heavily integrated into the course to help students visualize solutions.

To receive credit from Middlesex County College, students are required to maintain at least a 70 average for the course and must pay a one-time registration fee to the college.

NOTE: This course does not satisfy the prerequisite requirement for

TOPICS IN PRECALCULUS

Full Year Grades 11-12 5.0 credits

Prerequisite: *Algebra 2 or Essentials of Algebra 2*

This course is designed as a review of Algebra 1, Geometry, and Algebra 2. It also offers a preview of college-level Calculus. This course introduces trigonometry, but not in the depth that it is discussed in other courses offered at Piscataway High School. The primary purpose is to review previously-learned skills and introduce pre-calculus material to students.

NOTE: This course does not satisfy the prerequisite requirement for a course in calculus.

COLLEGE ALGEBRA

Full Year Grade 12 5.0 credits

Prerequisite: *Algebra 2 or Essentials of Algebra 2* This course is offered in cooperation with Middlesex County College. Three credits of College Algebra at Middlesex County College may be earned simultaneously with 5 credits earned at Piscataway High School. These credits may be transferable to other institutions.

This course is designed as a focused, full-year college preparatory course for students who have been challenged by high school mathematics. The content includes a rigorous extension of core topics from throughout high school mathematics with a focus on writing, problem solving, and modeling. This course will also help prepare students for standardized tests including the Accuplacer exam and the SAT. To receive credit from Middlesex County College, students are required to maintain at least a 70 average for the course and must pay a one-time registration fee to the college.

DISCRETE MATHEMATICS

Full Year Grades 11-12 5.0 Credits

Prerequisite: *Algebra 2 or Essentials of Algebra 2 with permission of the instructor*

This course allows students to gain an appreciation of the subtlety and range of mathematics. The topics are chosen with the purpose of introducing the student to a different view of mathematics from the one presented in a traditional curriculum. The course is focused on building a direct and immediate connection between the mathematics of our world and the concrete, real-life problems in which mathematics is realized.

This course offers students an opportunity to develop reasoning power and problem-solving skills to prepare them for future careers that will require new and more sophisticated analytical and technical tools. Topics include voting, fair division, apportionment, circuits, networks, scheduling, population growth, spiral growth in nature, statistics, probability, and fractal geometry.

APPLIED STATISTICS

Full Year Grades 11-12 5.0 Credits

Prerequisite: *Algebra 2 or Essentials of Algebra 2 with permission of the instructor*

This course introduces statistics topics through problem-based modules in a variety of content areas. Students will explore models of quantitative analysis in the natural sciences, the social sciences, business, and other disciplines, and will learn how and when statistical frameworks can be applied to data to draw conclusions and make predictions.

Applied Statistics is a modeling course and does not prepare students to take the AP Exam in Statistics. Students who take Applied Statistics are encouraged to continue their study of statistics by taking the Advanced Placement Statistics course.

ADVANCED PLACEMENT STATISTICS

Full Year Grades 10-12 5.0 credits

Prerequisite: *Honors Algebra 2 or a course following Algebra 2 with teacher recommendation*

This course is a task-oriented continuation of the Probability and Statistics course. Statistical skills will be expanded and applied to real life situations as required on the Advanced Placement test. Students are encouraged, but are not required, to take the AP test for possible college credit.

Students selecting AP Statistics **must** check with the math department in June to obtain a summer preview packet which is due in September.

Because this is an Advanced Placement course the grades are weighted for GPA calculation.

HONORS CALCULUS

Full Year Grade 12 5.0 Credits

Prerequisite: *Trigonometry and Analytic Geometry (Honors) or Trigonometry and Precalculus*

This course is the last portion of an accelerated mathematics program for students who do not take an Advanced Placement Calculus course. In addition to mastering precalculus skills, and working with college placement practice tests, this course is designed to be an introduction to calculus material for students who will be taking a calculus course in college and does not serve as a complete background for a student who intends to take the Advanced Placement exam. A TI-84 graphing calculator is used throughout the course.

Because this is an honors course the grades are weighted for GPA calculation.

ADVANCED PLACEMENT CALCULUS AB

Full Year Grade 12 7.5 Credits

Prerequisites: *Trigonometry and Analytic Geometry (Honors) or Trigonometry and Precalculus*

This course consists of a full high school academic year of work and is comparable to one semester of college-level calculus. It is designed for students who have outstanding skills and interests in the field of mathematics, and it is expected that students who take an AP course in calculus will want to gain college credit by taking the College Board Advanced Placement examination in May.

Practical and theoretical approaches are presented at an accelerated pace, thereby requiring a serious commitment on the student's part. Students who wish to study calculus but feel that they cannot devote the time and intensity necessary for this college level course should elect to take Honors Calculus. A TI-89 graphing calculator is used throughout the course.

Students selecting AP Calculus AB **must** check with the Mathematics Department in June to obtain a summer assignment, which is due in September.

Because this is an Advanced Placement course the grades are weighted for GPA calculation.

ADVANCED PLACEMENT CALCULUS BC

Full Year Grade 12 10.0 credits

Prerequisites: *Trigonometry and Analytic Geometry (Honors)*

This course consists of a full high school academic year of work and is comparable to two semesters of college-level calculus. It is designed for students who have outstanding skills and interests in the field of mathematics, and it is expected that students who take an AP course in calculus will want to gain college credit by taking the College Board Advanced Placement examination in May.

Practical and theoretical approaches are presented at an accelerated pace, thereby requiring a serious commitment on the student's part. Students who wish to study calculus but feel that they cannot devote the time and intensity necessary for this college level course should elect to take Honors Calculus or AP Calculus AB. A TI-89 graphing calculator is used throughout the course.

Students selecting AP Calculus BC **must** check with the Mathematics Department in June to obtain a summer assignment, which is due in September.

Because this is an Advanced Placement course the grades are weighted for GPA calculation.

SAT: CRITICAL REASONING AND PROBLEM SOLVING

Semester Grades 10 & 11 2.5 credits

Prerequisite: *Students must have completed Geometry.*

Students enrolled in this course will have a unique opportunity to improve test taking strategies using critical reasoning and problem solving skills in mathematics and literacy to help improve scores on the SAT. In Language Arts, students will practice evidence-based reading, reading comprehension, reasoning, and vocabulary. In Mathematics, students will focus on problem-solving skills and strategies, content skills, and logical reasoning.

INTRODUCTION TO COMPUTER SCIENCE

Full Year Grades 9-12 5.0 Credits

This is an introductory course in computer science that exposes students to the Java programming language. It covers the fundamentals of programming and computer science and supports logical thinking and problem solving skills. Upon completion of this course students will be able to (1) create

animations using Alice; (2) write basic programs in Java; (3) use Eclipse IDE and run Java programs. This course serves as a prerequisite to Advanced Placement Computer Science A and is highly recommended for students who plan to select Computer Science, Engineering, Finance, or Genetics as their major in college.

NOTE: Credit will be given for this course as a Practical Arts elective; however, the credit **will not** count towards the 15 credits of mathematics required for graduation.

HONORS JAVA CERTIFICATION AND ARTIFICIAL INTELLIGENCE IN MACHINE LEARNING (JCAIML)

*Full Year Grades 11-12 5.0 Credits *honors class**

Prerequisite: *Advanced Placement Computer Science A or by permission of the instructor*

JCAIML is a two semester advanced computer science course. During the first semester of the course, the students are introduced to post APCS-A Java concepts: Advance Inheritance, File IO, Exception handling, and Data Structures. This part of the course will prepare students for the Oracle Certified Associate (OCA), Java SE 8 Programmer Certification. After completing the first semester, students will appear for the OCA certification exam, and on passing this exam will receive Java – OCA certification.

Second semester of this course of study builds on the skills gained by students in Java Foundations and Java Programming. Students are introduced to Machine Learning concepts within Artificial Intelligence and will learn terminology, syntax, and the steps required to create a Machine Learning solution in Java using hands-on, engaging activities.

NOTE: Credit will be given for this course; however, the credit **will not** count towards the 15 credits of mathematics required for graduation.

ADVANCED PLACEMENT COMPUTER SCIENCE A

Full Year Grades 10-12 5.0 Credits

Prerequisite: *Introduction to Computer Science or permission of the instructor.*

This course emphasizes proper programming methodology, algorithmic development, data structures, and object-oriented programming. Students will be expected to use their knowledge of proper programming techniques when solving problems in this course. This course uses the JAVA programming language. Upon completion, students will be able to take the College Board AP Computer Science A exam.

Because this is an Advanced Placement course the grades are weighted for GPA purposes.

NOTE: Credit will be given for this course; however, the credit **will not** count towards the 15 credits of mathematics required for graduation.

ADVANCED PLACEMENT COMPUTER SCIENCE PRINCIPLES

Full Year Grades 10-12 5.0 Credits

Prerequisite: *Introduction to Computer Science with recommendation; Geometry or Honors Geometry*

This course introduces students to the central ideas of computer science, instilling the ideas and practices of computational thinking and inviting students to understand how computing changes the world. The rigorous course promotes deep learning of computational content, develops computational thinking skills, and engages students in the creative aspects of the field. Upon completion, students will be able to take the College Board AP Computer Science Principles exam and must complete two performance tasks throughout the course.

Students selecting AP Computer Science Principles **must** check the district web site in June to obtain a summer preview assignment, which is due on the first day of school in September.

Because this is an Advanced Placement course the grades are weighted for GPA purposes.

NOTE: Credit will be given for this course; however, the credit **will not** count towards the 15 credits of mathematics required for graduation.

Piscataway High School Science Department

Science Department Course Offerings

The Science Department at Piscataway High School is dedicated to providing students with learning opportunities that are designed to build scientific literacy, critical thinking, problem solving and analytical skills through the process of inquiry. In the Science Department's core classes, focus is placed on weaving together *Disciplinary Core Ideas*, *Cross Cutting Concepts* and *Science and Engineering practices* to provide enriched learning experiences. Student driven hands-on experiences provide opportunities to observe phenomena, make claims, gather evidence and test hypotheses. Students develop scientific reasoning skills as a way of understanding the natural world and solve real life problems. Students use technology and work cooperatively, develop attitudes and interests towards the goal of becoming lifelong learners in a global environment.

<i>SUBJECT</i>	GRADE				<i>SCIENCE CREDITS</i>
	9	10	11	12	
SCIENCE CORE CLASSES					
Conceptual Biology	X	X	X	X	5.0
Biology (Academic)	X	X			5.0
Honors Biology	X	X			5.0
Physical Sciences		X	X		5.0
Chemistry in the Community		X	X	X	5.0
Chemistry (Academic)		X	X		5.0
Honors Chemistry		X	X		5.0
Active Physics			X	X	5.0
Physics (Academic)			X	X	5.0
Honors Physics			X	X	5.0
					GENERAL CREDITS
AP SCIENCE ELECTIVE CLASSES					
Advanced Placement Biology			X	X	7.5
Advanced Placement Chemistry			X	X	7.5
Advanced Placement Environmental Science			X	X	5.0
Advanced Placement Physics C			X	X	7.5
Advanced Placement Physics C: Mechanics			X	X	7.5
GENERAL SCIENCE ELECTIVE CLASSES					
Anatomy & Physiology I for Health Science Careers <i>(5 HS credits, 4 Rutgers Credits)*</i>			X	X	5.0
Anatomy & Physiology II for Health Science Careers <i>(5 HS credits, 4 Anatomy + 3 Medical terminology Rutgers Credits)*</i>				X	5.0
Dynamics for Health Care in Society <i>(2.5 HS credits, 3 Rutgers Credits)*</i>		X	X	X	2.5
Astronomy			X	X	2.5
Human Anatomy and Physiology			X	X	5.0
Environmental Science		X	X	X	2.5
Forensics		X	X	X	2.5
Introduction to Organic Chemistry (H)			X	X	2.5
Research in Molecular Biology and Bioinformatics (H)			X	X	5.0
<i>*Students will take Rutgers assessments and upon graduation, earn Rutgers college credits</i>					
Explanation of Credit Values					
2.5 Credits - Semester		5.0 Credits - Full Year		7.5 Credits - Full Year, with a Lab	

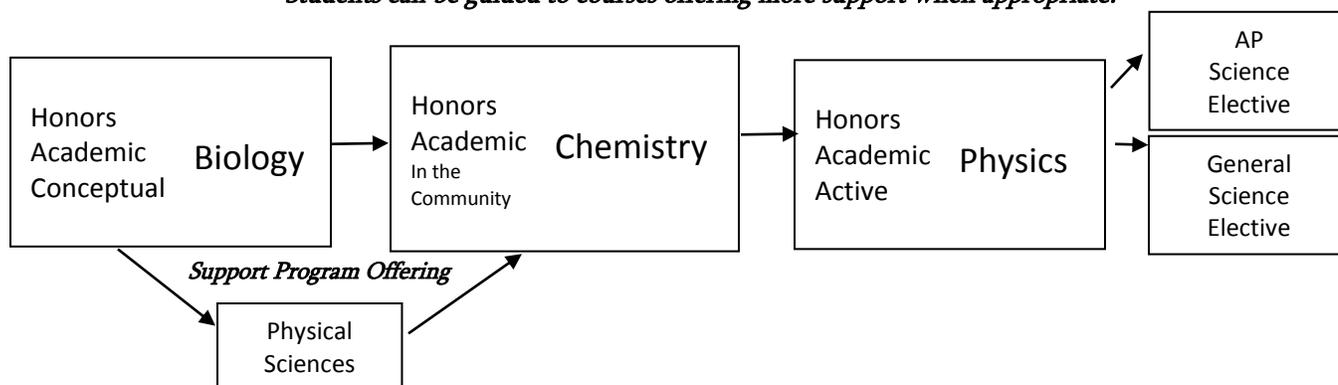
The sequence below does not represent all possible course options available at each level.

Science-oriented, college prep students should aim for Honors level courses as feasible.

Non-science, college prep students should aim for Academic level courses as feasible.

Students can be encouraged to move to more challenging courses when appropriate.

Students can be guided to courses offering more support when appropriate.



Science Department Course Descriptions

SCIENCE CORE CLASSES

CONCEPTUAL BIOLOGY, BIOLOGY (Academic), HONORS BIOLOGY

Full Year Grades 9-12 5 credits

Prerequisite: *Placement based upon 8th grade rubric and teacher recommendation*

Students will study the main themes of life sciences to make sense of the complexity, diversity and interconnectedness of life on earth. Lectures, projects, and labs emphasize molecular biology, living organisms, cell structure and function, the inheritance of traits, gene and chromosome changes, evidence of evolution, mechanisms of change, and ecological concepts. Emphasis is placed on problem solving, communicating scientific ideas, and inquiry lab work and laboratory reports.

PHYSICAL SCIENCES

Full Year Grades 10-12 5 credits

Prerequisite: *Successful completion of Biology I. Recommendation of previous science teacher is needed.*

This physical science course is an integration of chemistry and physics. Problem-solving, using math as a tool of science, and open-ended questions will be stressed. This course will prepare our students for successful completion of a full year of one or both of the physical sciences courses (chemistry and/or physics).

CHEMISTRY IN THE COMMUNITY, CHEMISTRY (Academic), HONORS CHEMISTRY

Full Year Grades 10-12 5 credits

Prerequisite: *Successful Completion of Algebra 1 and Academic or Honors Biology. Recommendation of previous science teacher is needed.*

Students study the composition of matter and the changes it undergoes in the formation of new products. Lectures, projects, and labs emphasize basic principles and laws, modern atomic theories, formula writing, stoichiometric relations, chemical calculations, and properties of the elements and their compounds. The topics range from the purely theoretical to real world applications. Emphasis is placed on problem solving, inquiry lab work and laboratory reports.

ACTIVE PHYSICS, PHYSICS (Academic), HONORS PHYSICS

Full year Grades 11-12 5 credits

Prerequisite: *Algebra 1, Geometry and recommendation of science teacher is needed.*

This Physics lab and lecture course consists of a foundational program that will lead to greater understanding of how mathematical models are used to describe the physical universe. Problem solving is stressed. Using an applied mathematical approach, students will be taught fundamental concepts of

motion, mechanics, fluid statics, fluid dynamics, thermodynamics, sound, light, wave motion, electricity, magnetism, and electromagnetic radiation.

ADVANCED PLACEMENT SCIENCE ELECTIVES

NOTE: General credit will be given for these courses; however, the credit **will not** count towards the 15-18 credits of science required for graduation.

ADVANCED PLACEMENT BIOLOGY

Full Year Grade 11-12 7.5 Credits

Prerequisite: *Successful completion of Biology and Chemistry and Algebra II or Honors Algebra II. Recommendation of previous science teacher is needed.*

The rigorous Advanced Placement Biology lab and lecture course consists of an intensive study of evolution, cells, information coding and transfer, the diversity of organisms, homeostatic mechanisms and communication, as well as the interdependence of nature and the processes of science. This course is designed for the highly motivated and capable student who plans to enter a collegiate program developed to train him/her for entrance into any of the fields of applied biology (public health, sanitary science, medicine, dentistry, veterinary medicine, industrial research and development) or to engage in graduate work in any of the fields of biology. The serious study of this course will enable students to take the advanced placement exam in May. A summer assignment is required and attendance at the summer course is strongly recommended.

ADVANCED PLACEMENT CHEMISTRY

Full Year Grade 11-12 7.5 Credits

Prerequisite: *Chemistry, Biology, and Physics (Physics may be taken concurrently), completion of Algebra 2 or Honors Algebra 2; Recommendation of science teacher is needed.*

This is an advanced course in theoretical and practical chemistry for students who have successfully completed a first year Academic or Honors chemistry course. This is a college-level course that includes a study of kinetics, equilibrium, electro-chemistry, thermodynamics, quantum mechanics, descriptive chemistry, and some organic chemistry. Laboratory investigations are coupled with lecture concepts. In May, students will take the Chemistry Advanced Placement Exam administered by the College Boards. A summer assignment is required and attendance at the summer course is strongly recommended.

ADVANCED PLACEMENT PHYSICS C

Full Year Grade 11-12 7.5 Credits

Prerequisite: *Physics (academic or honors), Trigonometry, Biology, Chemistry, (AP Biology or AP Chemistry may be taken concurrently.); completion of or currently enrolled in Calculus. Recommendation of science teacher is needed.*

The second year physics program is intended for students who are interested in a career in science, engineering, mathematics and technology and strengthens the background obtained in the first year physics course. This course is taught at an accelerated pace in order to strictly follow the national advanced placement physics curriculum. Upon completion of this course students are expected to take the Physics C advanced placement exams. Summer work is required and a summer class is recommended.

ADVANCED PLACEMENT PHYSICS C: MECHANICS

Full Year Grade 11-12 7.5 Credits

Prerequisite: *Physics (academic or honors), Trigonometry, Biology, Chemistry, (AP Biology or AP Chemistry may be taken concurrently.); completion of or currently enrolled in Calculus. Recommendation of science teacher is needed.*

The second year physics program is intended for students who are interested in a career in science, engineering, mathematics and technology and strengthens the background obtained in the first year

physics course. This course is taught at an accelerated pace in order to strictly follow the national advanced placement physics curriculum. Upon completion of this course students are expected to take the Physics C advanced placement Mechanics exam. Summer work is required and a summer class is recommended.

ADVANCED PLACEMENT ENVIRONMENTAL SCIENCE

Full Year Grade 10-12 5 Credits

Prerequisite: *Students must attain a final year-end average of 85 for Academic level or 80 for Honors level of Biology and Chemistry. Algebra I required, and Algebra II is preferred as prerequisite. Recommendation of science teacher is needed. Students who have completed conceptual level courses are not recommended.*

Environmental science is in part a new integration of old disciplines, and in part a new discipline of its own. It is expected that the following topics will be reviewed to varying degrees directly or indirectly: natural ecology, human adaptation, extinction of species, human populations, energy, agriculture, radioactive wastes, air pollution, water pollutions, noise, as well as social, legal, and economic aspects.

GENERAL SCIENCE ELECTIVES

NOTE: General credit will be given for these courses; however, the credit **will not** count towards the 15-18 credits of science required for graduation.

ASTRONOMY

Semester Grades 11-12 2.5 Credits

This course consists of the study of various celestial objects and their movement. Some topics include: Kepler's and Newton's laws; types of telescopes and their use; the sun and moon stars; stellar evolution; galaxies; comets; cosmology; quasars; current events in astronomy and space missions, the various planets and how the formation of the solar system relates to the history of the Earth. For many of the course topics, Piscataway High School's planetarium is used as a teaching tool.

ENVIRONMENTAL SCIENCE

Semester Grade 11-12 2.5 Credits

Prerequisite: *Successful completion of one year of Biology*

The goal of this course is to provide students with the social and humanistic aspects of science. Major content areas to be studied include: ecology of natural systems; human adaptation to environmental change; extinction of species; human population growth; energy-resources; pollution; agricultural systems; Earth's systems; weather and climate; natural disasters; and the social, legal, and economic aspects of environmental degradation.

FORENSICS

Semester Grade 10-12 2.5 Credits

Prerequisite: *Successful completion of one year of Biology*

This semester elective focuses on the application of scientific principles and techniques to criminal investigation. Students are introduced to the history of forensic science, the crime scene and the use of the microscope and other investigatory tools. Various types of physical evidence as well as lab tests are evaluated to ascertain their validity in a court of law. Students analyze physical evidence such as hair, fiber, questioned documents, fingerprints, drugs, toxins, blood type, blood spatter and DNA fingerprinting. Students review case studies of real crimes, step into the role of the forensic scientist, learn and apply numerous scientific strategies and skills. This course provides students hands-on opportunities to study this exciting field, thus exposing them to possible careers in criminal justice.

HUMAN ANATOMY AND PHYSIOLOGY

Full Year Grade 11-12 5 Credits

Prerequisite: *Successful completion of one year of Biology with a minimum grade of 70*

This exciting elective is a combination lab and lecture course that explores the anatomy and physiology of the human body. The structure of the various human body systems will be studied and the function of each system will be explored. This is an interesting and relevant course where students will have the opportunity to study about themselves. Students considering a career in nursing, medicine, teaching, public health, dentistry, or veterinary medicine will enjoy this course.

INTRODUCTION TO ORGANIC CHEMISTRY (HONORS)

Semester Grade 11-12 2.5 Credits

Prerequisite: *Students must attain a final year-end average of 85 for Academic level or 80 for Honors level of Biology. Students must attain a final year-end average of 85 for Honors Chemistry.*

This is a semester elective course designed for high school students interested in studying chemistry beyond the first year requirement and for students interested in pursuing a college education in either the biological or chemical sciences. It is suggested that this course be taken concurrently with AP Chemistry or AP Biology. Built as an exposure to the study of organic chemistry, this course will focus on carbon and its properties as it impacts the natural and man-made carbon based products. Topics included will be naming organic compounds, organic reactions and analytical laboratory techniques such as synthesis, separation, identification, and quantification of both natural and man-made products. Interdisciplinary connections will be made so that students begin to appreciate the many facets of our world at a molecular level. A summer assignment is required.

RESEARCH IN MOLECULAR BIOLOGY AND BIOINFORMATICS (HONORS)

Full Year Grade 11-12 5 Credits

Prerequisites: *Students must attain a final year-end average of 85 for Academic level or 80 for Honors level of Biology and Chemistry.*

The goal of this course is to provide students with the tools needed for an academic and professional career using modern biological and laboratory techniques. The course will operate under the simple premise that students learn science by doing science. Students will participate in authentic collegiate level research. As their knowledge of these disciplines increases, students will be able to become more independent in the application of various techniques in order to conduct novel research.

BIOMEDICAL CAREER PATHWAY PROGRAM

****Students must complete an application for enrollment in these courses.****

NOTE: General credit will be given for these courses; however, the credit **will not** count towards the 15-18 credits of science required for graduation.

Clinical Shadowing: Students will be required to complete a minimum of 10 hours of shadowing of their choice each year they participate in the Rutgers program.

DYNAMICS OF HEALTH CARE IN SOCIETY

Semester Grades 10-12 2.5 Credits

Prerequisite: *Students must attain a final year-end average of 80 for Academic level or 75 for Honors level of Biology and Chemistry. Additionally, students must have a passing grade on each of the science final exams.*

This course provides an orientation to health care services and their delivery. It presents an interdisciplinary perspective, focusing on process skills such as critical thinking, ethical reasoning, effective communication and ways to continue independent learning throughout life. The course shows how all health care providers acquire professional competence in dealing with the issues and problems they face as well as the role they play as informed consumers. The minimum level of satisfactory performance in this course is a grade of 73 or better.

Upon successful completion of the course students will be eligible to take the Health Science Careers standardized exam to determine college credit. Students must attain a grade of 70 or better on the

standardized exam to earn college credits. Upon graduation, students will earn 3 Rutgers credits pending the results of the assessments. The grade listed on Rutgers transcript will be comprised of 100% of the Rutgers standardized exam grade.

ANATOMY AND PHYSIOLOGY I FOR HEALTH SCIENCE CAREERS

Full Year Grade 11-12 5 Credits

Prerequisite: *Students must attain a final year-end average of 80 for Academic level or 75 for Honors level of Biology and Chemistry. Additionally, students must have a passing grade on each of the science final exams.*

Anatomy and Physiology is the study of the structure and function of the human body. This course follows a sequential development of the major body systems in an organized and structured curriculum. The course is designed to give students a selective overview of human anatomical structure and an analysis of human physiological principles. Labs will include slide work, dissection of various animals and studies of the human skeleton. Computer simulated dissection will also be used. Terminology related to anatomy of the human body, functions of health and disease, and the use of language in processing medical/dental records and claim forms will be included. The minimum level of satisfactory performance in this course is 73 or better.

Upon successful completion of the course students will be eligible to take the Health Science Careers standardized exam to determine college credit. Upon graduation, students will earn 4 Rutgers credits pending the results of the assessments. Minimum passing standardized exam grade must be at least 70 before calculations of Rutgers transcript grade can be determined.

ANATOMY AND PHYSIOLOGY II FOR HEALTH SCIENCE CAREERS

Full Year Grade 12 5 Credits

Prerequisite: *Students must attain a passing grade in Anatomy & Physiology I for Health Science Careers. Additionally, students must attain a passing grade on Rutgers assessments for Anatomy I to be eligible for Rutgers credits for Anatomy II.*

Anatomy and Physiology II continues with the study of sequential development of the major body systems in an organized and structured curriculum. This course will prepare students for all other basic science and clinical courses. Coursework includes the study of Endocrine System, Lymphatic System, Blood and Cardiovascular System, Respiratory System, Digestive System, Urinary System, Water and Electrolyte, Male and Female Reproductive Systems. Labs include slide work, dissection of various animals and studies of the human skeleton. The course will also use computer simulated dissection. The minimum level of satisfactory performance in this course is a grade of 73 or better.

Upon successful completion of the course students will be eligible to take two Health Science Careers standardized exams: a) Anatomy and Physiology II, for 4 Rutgers credits and b) Medical terminology, for 3 Rutgers credits. Upon graduation, students will earn 7 Rutgers credits pending the results of the assessments. Minimum passing standardized exam grade must be at least 70 before calculations of Rutgers transcript grade can be determined.

World Languages

We believe that the study of a world language plays an essential role in the intellectual development and total enrichment of the individual. An effective world languages program recognizes individual differences in learning patterns and abilities, tailoring courses to students with diverse needs and interests. We endeavor to provide a comprehensive, well-articulated and coordinated world language program that is not only leads with culture, is standards-based, student centered, encourages proficiency gains and measurable results but is also a rewarding and satisfying experience for each learner. Through language study, students make connections with other content areas, compare the language and culture studied with their own as well as participate in home and global communities. Proficiency drives our instructional practice. Our goal is to learn to use the language not learn about the language. In our WL classes students work towards meaningful, real-life use of the target language. The World Languages program at Piscataway High School offers students opportunity to study American Sign Language, French, Italian, Mandarin Chinese or Spanish. We offer Honors as well as AP courses. Learners have the opportunity to participate in various international travels. We have exchange programs with our sister schools in China or Spain as well as opportunities to visit Italy, Quebec and France.

World Language Department Course Offerings

<i>SUBJECT</i>	GRADE				<i>CREDITS</i>
	9	10	11	12	
American Sign Language 1	X	X	X	X	5.0
American Sign Language 2	X	X	X	X	5.0
French 1	X	X	X	X	5.0
French 2	X	X	X	X	5.0
French 3	X	X	X	X	5.0
French 4		X	X	X	5.0
Italian 1	X	X	X	X	5.0
Italian 2		X	X	X	5.0
Italian 3			X	X	5.0
Italian 4				X	5.0
Mandarin Chinese 1	X	X	X	X	5.0
Mandarin Chinese 2		X	X	X	5.0
Mandarin Chinese 3		X	X	X	5.0
Mandarin Chinese 4		X	X	X	5.0
Spanish 1	X	X	X	X	5.0
Spanish 2	X	X	X	X	5.0
Spanish 2 – Language and Culture	X	X	X	X	5.0
Spanish 2- Honors	X	X	X	X	5.0
Spanish 3	X	X	X	X	5.0
Spanish 3 - Honors	X	X	X	X	5.0
Spanish 4		X	X	X	5.0
Spanish 4 – Honors (available 2022-23)		X	X	X	5.0
Spanish 5 – Honors (discontinues in 2022)			X	X	5.0
Spanish AP			X	X	5.0
Spanish for Heritage Speakers 1	X	X	X	X	5.0
Spanish for Heritage Speakers 2	X	X	X	X	5.0

5.0 Credits -Full Year

World Languages

Freshmen are placed in World Language based upon grades received in eighth grade, previous language experience, and the recommendation of teachers. Courses are taught sequentially. All courses are five credits and are offered for a full year.

LEVEL 1: American Sign Language, French, Italian Mandarin Chinese or Spanish

This course is designed for students with no background in the language and stresses the development of basic communication skills in listening, speaking, reading and writing. Students learn about the cultures of the language they are studying. The Novice-Mid language learner understands and communicates at the word level and can independently identify and recognize memorized words and phrases that bring meaning to text. Level 1 student understands and communicates at the word level and can use memorized words and phrases independently to: respond to learned questions, ask memorized questions, state needs and preferences, and describe people, places, and things. The Novice-Mid language learner understands and communicates at the word level and can use memorized words and phrases independently to: make lists, state needs and preferences, and describe people, places, and things.

LEVEL 2: French, Italian Mandarin Chinese or Spanish

This novice-high course further develops communicative language skills in listening, speaking, reading, and writing while exploring culture. The Novice-High language learner has progressed from understanding and communicating at the word level to understanding and communicating at the sentence level and can use words, lists, and simple sentences to: identify the main idea and some supporting details when reading, understand the gist and some supporting details of conversations dealing with everyday life, infer the meaning of some unfamiliar words when used in familiar contexts. The Novice-High language learner has progressed from understanding and communicating at the word level to understanding and communicating at the sentence level and can use words, lists, and simple sentences independently to: ask and answer questions related to everyday life, and handle simple transactions related to everyday life:

LEVEL 2: Spanish Honors

This intermediate-low course, conducted almost entirely in the target language, continues the development of listening, speaking, reading, and writing through a variety of communicative activities. This course prepares the student for a future Spanish AP course. The Intermediate-Low language learner understands and communicates at the sentence level and can use simple sentences independently to: identify the main idea and some supporting details when reading, understand the gist and some supporting details of conversations dealing with everyday life, and infer the meaning of some unfamiliar words when used in familiar contexts. The Intermediate-Low language learner understands and communicates at the sentence level and can use simple sentences independently to: ask and answer questions related to everyday life, and handle simple transactions related to everyday life. The Intermediate-Low language learner understands and communicates at the sentence level & can use simple sentences independently to handle simple transactions related to everyday life

LEVEL 2: Spanish-Language and Culture

This is course is specifically for students who have a basic background in Spanish but have a gap in studies. There is a focus on strengthening the students background knowledge. This Novice-Mid/High course further develops communicative language skills in listening, speaking, reading, and writing while exploring culture. The Novice-Mid/High language learner has progressed from understanding and communicating at the word level to understanding and communicating at the sentence level and can use words, lists, and simple sentences to: identify the main idea and some supporting details when reading,

understand the gist and some supporting details of conversations dealing with everyday life, infer the meaning of some unfamiliar words when used in familiar contexts. The Novice-Mid/High language learner has progressed from understanding and communicating at the word level to understanding and communicating at the sentence level and can use words, lists, and simple sentences independently to: ask and answer questions related to everyday life, and handle simple transactions related to everyday life:

LEVEL 3: French, Italian Mandarin Chinese or Spanish

This intermediate-low course, conducted almost entirely in the target language, continues the development of listening, speaking, reading, and writing through a variety of communicative activities. The Intermediate-Low language learner understands and communicates at the sentence level and can use simple sentences independently to: identify the main idea and some supporting details when reading, understand the gist and some supporting details of conversations dealing with everyday life, and infer the meaning of some unfamiliar words when used in familiar contexts. The Intermediate-Low language learner understands and communicates at the sentence level and can use simple sentences independently to: ask and answer questions related to everyday life, and handle simple transactions related to everyday life. The Intermediate-Low language learner understands and communicates at the sentence level & can use simple sentences independently to handle simple transactions related to everyday life

LEVEL 3: Spanish Honors

This intermediate-mid course, conducted as an immersion experience the target language, continues the development of listening, speaking, reading, and writing through a variety of communicative activities. This course prepares the student for a future Spanish AP course. The Intermediate-Mid language learner understands and communicates at the sentence level and can use strings of sentences independently to: identify the main idea and some supporting details when reading, understand the gist and some supporting details of conversations dealing with everyday life, and infer the meaning of some unfamiliar words when used in familiar contexts. The Intermediate-Mid language learner understands and communicates at the sentence level and can use strings of sentences independently to: ask and answer questions related to everyday life, and handle simple transactions related to everyday life.

LEVEL 4: French, Italian, Spanish, Mandarin Chinese

This intermediate – mid course, conducted exclusively in the target language, emphasizes the study of language through the introduction of literature and advanced grammatical structures. The Intermediate-Mid language learner understands and communicates at the sentence level and can use strings of sentences independently to: identify the main idea and some supporting details when reading, understand the gist and some supporting details of conversations dealing with everyday life, and infer the meaning of some unfamiliar words when used in familiar contexts. The Intermediate-Mid language learner understands and communicates at the sentence level and can use strings of sentences independently to: ask and answer questions related to everyday life, and handle simple transactions related to everyday life.

LEVEL 4: Spanish Honors

This course will not be available until the 2022-2023 school year

LEVEL 5: Spanish Honors

This Honors level course, a prerequisite to Advanced Placement, continues the practice of language skills with special emphasis on reading and writing through the exploration of a variety of literary pieces. Grades for this course are weighted. The Intermediate-High language learner has progressed from understanding and communicating at the sentence level to understanding and communicating at the paragraph level and can use connected sentences and paragraphs independently to: analyze written and oral text, synthesize written and oral text, identify most supporting details in written and oral text, infer meaning of unfamiliar words in new contexts, infer and interpret author's intent, identify some cultural perspectives as well as the organizing principle in written and oral text. The Intermediate-High language learner has progressed from understanding and communicating at the sentence level to understanding and communicating at the paragraph level and can use connected sentences and paragraphs independently to: infer meaning of unfamiliar words in new contexts, identify some cultural perspectives, narrate and describe across a wide-range of topics, compare and contrast, offer and support opinions, persuade someone to change a point of view, make and change plans, offer advice, and handle a situation with a complication. The Intermediate-High language learner has progressed from understanding and communicating at the sentence level to understanding and communicating at the paragraph level and can use connected sentences and paragraphs

LEVEL 6: ADVANCED PLACEMENT: Spanish

Recommendation of Level 5 language teacher is a prerequisite for this course. This Honors level course is designed to prepare students for the Advanced Placement Language Examination through the examination of history and literature and extensive training in the organization of essay writing. Grades for this course are weighted. The AP Language Examination is offered annually in the spring.

SPANISH FOR HERITAGE SPEAKERS 1 & 2

This course is designed for students who speak and hear Spanish at home but need to improve their academic language skills. Spanish speaking students strengthen language skills and develop an appreciation for literature and culture. This course may satisfy university foreign language requirements if taken in conjunction with Spanish 4, Spanish 5, or AP the following year. Courses are five credits, offered for a full year, and taught in sequence.

ESL Department

The ESL Department at Piscataway High School is dedicated to promoting acculturation into American society while respecting and appreciating the language and culture of the students and their families. We endeavor teach ESL and English language arts literacy so that students will be able to communicate in English and achieve academically in English in order to facilitate the transition of students from the ESL Program to the General Education Program when they are ready as determined by multiple criteria and State Code. We ensure that all English Language Learners make yearly progress toward English proficiency as measured by New Jersey State mandated ACCESS 2.0® Test. We encourage and support the involvement of parents in classroom, school, and district programs.

ESL Department Course Offerings

<i>SUBJECT</i>	GRADE				<i>CREDITS</i>
	9	10	11	12	
ESL Reading 1	X	X	X	X	5.0
ESL Writing 1	X	X	X	X	5.0
ESL Reading 2	X	X	X	X	5.0
ESL Writing 2	X	X	X	X	5.0
ESL Reading 3	X	X	X	X	5.0
ESL Writing 3	X	X	X	X	5.0
ESL Reading 4	X	X	X	X	5.0
ESL Writing 4	X	X	X	X	5.0
ESL Reading 5	X	X	X	X	5.0
ESL Writing 5	X	X	X	X	5.0
ESL World Cultures*	X	X	X	X	5.0
ESL United States History 1*	X	X	X	X	5.0
ESL Biology*	X	X	X	X	5.0
ESL Physical Science*	X	X	X	X	5.0
ESL Algebra 1*	X	X	X	X	5.0
ESL Algebra 2*	X	X	X	X	5.0

5.0 Credits -Full Year

**Regular content courses with in-class ESL support*

ESL Reading 1

The ESL 1 reading course is aligned with the WIDA level “Entering”

This class provides individual and group instruction to those students who are at a newcomer/novice-low level.

Conversation practice, vocabulary building, with a focus on developing reading literacy skills are be stressed.

ESL Writing 1

The ESL 1 writing course is aligned with the WIDA level “Entering”

This class provides individual and group instruction to those students who are at a newcomer/novice-low level.

Vocabulary building, with a focus on developing writing literacy skills are be stressed.

ESL Reading 2

The ESL 2 reading course is aligned with the WIDA level “Emerging”

This class provides individual and group instruction to those students who are at the intermediate-low level. Conversation practice, vocabulary building, with a focus on developing reading literacy skills are be stressed.

ESL Writing 2

The ESL 2 writing course is aligned with the WIDA level “Emerging”

This class provides individual and group instruction to those students who are at the intermediate-low level.

Vocabulary building, with a focus on developing writing literacy skills are be stressed.

ESL Reading 3

Prerequisite: Department recommendation

The ESL 3 reading course is aligned with the WIDA level “Developing”

This intermediate class reinforces and further develops literacy skills. The course emphasizes academic and social language development through the use of interdisciplinary content area material. Some creative and expository writing will be assigned. Students will further develop their vocabularies and use of idioms.

ESL Writing 3

Prerequisite: Department recommendation

The ESL 3 writing course is aligned with the WIDA level “Developing”. This intermediate class reinforces and further develops literacy skills. The course emphasizes academic and social language development through the use of interdisciplinary content area material. Some creative and expository writing will be assigned. Students will further develop their vocabularies and use of idioms.

ESL Reading 4

Prerequisite: Department recommendation

The ESL 4 reading course is aligned with the WIDA level “Expanding”. This intermediate-high class reinforces and further develops literacy skills. The course emphasizes academic and social language development through the use of interdisciplinary content area material. Some creative and expository writing will be assigned. Students will further develop their vocabularies and use of idioms.

ESL Writing 4

Prerequisite: Department recommendation

The ESL 4 reading course is aligned with the WIDA level “Expanding”

This intermediate-high class reinforces and further develops literacy skills. The course emphasizes academic and social language development through the use of interdisciplinary content area material. Some creative and expository writing will be assigned. Students will further develop their vocabularies and use of idioms.

ESL Reading 5

Prerequisite: Department recommendation

The ESL 5 reading course is aligned with the WIDA level “Bridging” This advanced class reinforces and further develops all literacy skills with a focus on preparation for mainstream ELA classes.

The course emphasizes academic and social language development through the use of interdisciplinary content area material. Creative and expository writing will be assigned. Students will further develop their vocabularies and use of idioms.

ESL Writing 5

Prerequisite: Department recommendation

The ESL 5 reading course is aligned with the WIDA level “Bridging”

This advanced class reinforces and further develops all literacy skills with a focus on preparation for mainstream ELA classes. The course emphasizes academic and social language development through the

use of interdisciplinary content area material. Creative and expository writing will be assigned. Students will further develop their vocabularies and use of idioms.

Comprehensive Health and Physical Education

Any student taking a six (6) credit Science course will be simultaneously enrolled in four (4) credit physical education and health courses.

Health/Physical Education

HEALTH/PHYSICAL EDUCATION I

Full Year Grade 9 5 credits

The high school Physical Education program consists of a variety of well-rounded activities. Students will be exposed to three lifetime or team activities per marking period. The lifetime activities will include tennis, cross-training, power walking/jogging, physical fitness, weight training, aerobics and yoga. Team activities will include flag football, speedball, volleyball, basketball, softball, soccer, mass games, badminton, project adventure and problem solving activities. A pre- and post- physical fitness test is administered quarterly to each student. Freshman students will be participating in *Fitnessgram*, a complete set of health-related fitness exercises that are scored using criterion-referenced standards. The standards are gender and age specific and are based upon good health fitness standards for youth.

In our Health program, students are encouraged to examine their life styles, select short and long-term goals, and make plans to achieve and maintain good health. Students will become aware of the responsibility they have for their own health and well-being. Health 1 will provide current information on the following topics: mental health, substance awareness, family life, responsible decision-making, sexually transmitted infections/diseases and bullying. Students will understand the difference between healthy and harmful behaviors in order to develop an understanding of the effects of behaviors on one's overall health and wellness. Students will be shown how to practice a basic problem solving approach: recognize the health problem; identify ways to solve the problem; apply information from various sources; attempt a solution.

DRIVER EDUCATION/PHYSICAL EDUCATION II

Full Year Grade 10 5 credits

The high school Physical Education program consists of a variety of well-rounded activities. Students will be exposed to three lifetime or team activities per marking period. The lifetime activities will include but not limited to tennis, cross-training, weight training and aerobics. Team activities will include flag football, speedball, volleyball, basketball, softball, soccer, mass games, badminton, project adventure and problem solving activities. A pre- and post- physical fitness test is administered quarterly to each student. The test is a complete set of health-related fitness exercises.

The goal of the Driver Education program at Piscataway High School is to provide students with the information necessary to develop an understanding of the safe and efficient operation of motor vehicles. The course content emphasizes the personal and social implications that are pertinent to the safe and efficient operation of a motor vehicle. This can only be accomplished through the development of prospective drivers who have the necessary knowledge, habits, skills, and attitude to become good drivers. Students will be engaged in a variety of tasks to prepare them in navigating our roadways.

HEALTH/PHYSICAL EDUCATION III

Full Year Grade 11 5 credits

The high school Physical Education program consists of a variety of well-rounded activities. Students will be exposed to three lifetime or team activities per marking period. The lifetime activities will include but not limited to tennis, cross-training, weight training and aerobics. Team activities will include flag football, speedball, volleyball, basketball, softball, soccer, mass games, badminton, project

adventure and problem solving activities. A pre- and post- physical fitness test is administered quarterly to each student. The test is a complete set of health-related fitness exercises.

Health 3 provides students with the opportunity to gain skills necessary to cope with health-related problems in a world that is constantly changing. Students will understand that they have a responsibility to others as well as to themselves. They will develop an understanding of the value of interpersonal relationships. Topics discussed in this course include: Stress; Suicide Prevention; Nutrition; First Aid, and CPR. Students will be shown how to practice a basic problem solving approach, recognize the health problem, identify ways to solve the problem, apply information from various sources and attempt a solution. Students will also receive training in CPR, which will fulfill the state's requirement.

HEALTH/PHYSICAL EDUCATION IV

Full Year

Grade 12

5 credits

The high school Physical Education program consists of a variety of well-rounded activities. Students will be exposed to three lifetime or team activities per marking period. The lifetime activities will include but not limited to tennis, cross-training, weight training and aerobics. Team activities will include flag football, speedball, volleyball, basketball, softball, soccer, mass games, badminton, project adventure and problem solving activities. A pre- and post- physical fitness test is administered quarterly to each student. The test is a complete set of health-related fitness exercises.

Health 4 emphasizes the nature, importance and skills in relationships. Course topics will include: Gender Issues; Love; Marriage; Childbirth; Parenting; Prevention of Sexually Transmitted Diseases including HIV/AIDS; and research of a variety of mental illnesses. Students will be shown how to practice a basic problem solving approach, recognize the health problem, identify ways to solve the problem, apply information from various sources and attempt a solution.

Visual & Performing Arts

Visual Arts

The areas of Visual Arts, Music, Theatre, and Dance are aligned with the NJ State Standards for Visual and Performing Arts. In order for our school district to develop a comprehensive education for our students, the following descriptions, pathways, and courses will show the wide variety of courses offered in the Visual and Performing Arts.

Visual Arts Department Course Offerings

Subject	Grade				Credits
	9	10	11	12	
World of Art	X	X	X	X	5.0
Drawing and Painting I	X	X	X	X	5.0
Drawing and Painting 2*		X	X	X	5.0
Photographic Design 1	X	X	X	X	5.0
Photographic Design 2*		X	X	X	5.0
Ceramics and Sculpture 1	X	X	X	X	5.0
Ceramics and Sculpture 2		X	X	X	5.0
Ceramics 3: The Pottery Wheel			X	X	5.0
Graphic Design 1	X	X	X	X	5.0
Graphic Design 2*		X	X	X	5.0
Multimedia Printing and Design	X	X	X	X	5.0
Introduction to Animation	X	X	X	X	5.0
Animation 2*		X	X	X	5.0
Advanced Placement Drawing 1			X	X	5.0
Advanced Placement Drawing 2			X	X	5.0
Advanced Placement 2D Design 1			X	X	5.0
Advanced Placement 2D Design 2			X	X	5.0
Advanced Placement 3D Design			X	X	5.0
Visual Arts Workshop (Independent Study)	Teacher Recommendation				5.0

** Independent Study offered upon completion of course sequence.*

Common Visual Arts Pathways

Drawing & Painting	Drawing & Painting I	Drawing & Painting II	AP Drawing I	AP Drawing II
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Photography	Photo Design I	Photo Design II	AP 2D Design I	AP 2D Design II
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Ceramics & Sculpture	Ceramics & Sculpture I	Ceramics & Sculpture II	Ceramics 3: The Pottery Wheel	AP 3D Design/ Sculpture Independent Study
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Graphic Design	Graphic Design I	Graphic Design II	Graphic Design Independent Study	AP 2D Design I
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Additional Visual Arts Courses (added as schedule permits)

Introduction to Animation → Animation II

Multimedia Printing & Design

Visual Arts Workshop (Teacher Recommendation Only)

*Hybrids of the above pathways and courses can be developed
based on individual need/interest.*

A Note about Visual Art Beyond High School

Admission to an art school depends heavily on the depth and breadth of the student portfolio. As is necessary in any concentration of study, it is best to develop skills in both 2D and 3D artwork. Therefore, the above can be altered to establish the breadth of the artistic experience. All students applying to art schools must submit a portfolio in order to show a good sampling of their artistic skills. More than one course is necessary to achieve this goal.

Visual Arts Course Descriptions

WORLD OF ART

Full Year Grades 9-12 5 credits

This course is designed for the beginning visual art student who is interested in exploring various mediums of visual art with minimum prior experience. Students will explore a wide range of “hands on”

visual arts experiences. Areas of study include drawing, painting, color theory, collage, sculpture, and digital art. The instructor will help students not only to strive to produce quality finished products but also inspire diversified, creative thinking. In addition to learning the basic developmental skills and techniques in each area, this course will expose students to the works of famous artists and stress the art elements and design principles of good composition.

DRAWING AND PAINTING 1

Full Year Grades 9-12 5 credits

This course is recommended for the beginner drawing and painting student. In this course, we learn a wide variety of drawing and painting techniques. Students learn how to use pencil, color pencil, acrylic paint, and watercolor, while exploring different subject matter. This course is a prerequisite to Drawing and Painting 2.

DRAWING AND PAINTING 2

Full Year Grades 10-12 5 credits

Prerequisite: *Teacher recommendation and a minimum 90 average in Drawing and Painting 1.*

This course is intended for the student who is seriously considering a career in the visual arts after high school. It is a continuation of Drawing & Painting I. It emphasizes drawing from observation and the use of different media and techniques to create art. Students will continue to develop compositional skills while combining media in new and visually interesting ways.

GRAPHIC DESIGN 1

Full Year Grades 9-12 5 credits

Do you take notice of nice logos, interesting movie posters, or album artwork? This course is for the student interested in creating visually interesting designs. We'll learn how to use elements and principles of design to design successfully. This class has a variety of activities ranging from sketching, drawing abstract designs, designing with type, using digital cameras, and learning professional software, such as Illustrator and Photoshop.

GRAPHIC DESIGN 2

Full Year Grades 10-12 5 credits

Prerequisite: *Teacher recommendation and a minimum 90 average in Graphic Design 1.*

This course is intended for students interested in Graphic Design as a possible career, or students who would like to explore advanced projects in Graphic Design. A strong competency of skills acquired in Graphic Design I is necessary. Classroom activities will include expanded projects such as web design and 3 dimensional projects.

PHOTOGRAPHIC DESIGN 1

Full Year Grades 9-12 5 credits

This course is recommended for the beginning photography student and is a prerequisite to Photographic Design 2. The exploration of the design elements and principles will be studied through the photographic image. Classroom activities include picture taking, developing, and printing of images in a darkroom setting as well as the enhancement of the digital image via the computer. Students will be required to take photos for various assignments on their own time, outside of the school day. It is recommended that students have a camera to use for this class.

PHOTOGRAPHIC DESIGN 2

Full Year Grades 10-12 5 credits

Prerequisite: *Teacher recommendation and a minimum 90 average in Photographic Design 1.*

Learn to use an SLR manual camera in order to make your own photographic prints and portfolio. Students will learn a wide variety of camera and darkroom techniques, as well as digital skills via the computer and software such as Photoshop. Students will be required to take photos for various assignments on their own time, outside of the school day. It is recommended that students have a camera to use for this class.

CERAMICS & SCULPTURE 1

Full Year Grades 9-12 5 credits

This is a five credit full year course. Throughout the year, basic ceramics skills will be covered, such as hand building with pinch, coil, and slab. Terminology, exploration of textures, and applying glazes are included in this course. Students will also learn art history as it is related to a particular project they have created. Other materials students may be using in the course are paper, cardboard, glass (mosaics), and wire. Students also create an art journal in which they will create mixed media projects.

CERAMICS & SCULPTURE 2

Full Year Grades 10-12 5 credits

Prerequisite: *Teacher recommendation and a minimum 90 average in Ceramics & Sculpture 1.*

This is a five-credit full year course. Throughout the year, students will continue to build on their hand building techniques, which they learned in level 1 with an opportunity to further their study of three-dimensional art. The projects will be more challenging than in level 1. Students will have the opportunity to explore the pottery wheel for a short period of time. Terminology, exploration of textures, and applying glazes are also included in this course. Students will also learn art history as it is related to a particular project they have created. Other materials students may be using in the course are paper, cardboard, glass, and wire. Students also create mixed media projects in an art journal.

CERAMICS 3: THE POTTERY WHEEL

Full Year Grades 11-12 5 credits

Prerequisite: *Ceramics & Sculpture 1 & 2 – This class is for students who have taken Ceramics level 1 and 2, and who have maintained a 90% or higher in both classes. This class is designed for students who have already worked on the wheel in Level 2.*

In this intensive course, students will learn the skills necessary to throw cylinders, cups, bowls, and more. Students will be guided through the process of throwing, shaping, and trimming pots on the wheel. Surface decoration and glazing techniques are further developed in this course. Students will create an art journal to record their ideas, sketches, and glazes.

MULTIMEDIA PRINTING & DESIGN

Full Year Grades 9-12 5 credits

Multimedia Printing and Design covers basic principles, materials and equipment used in the major printing processes. Emphasis is placed on graphic design, print communication, screen printing, lithography and bindery techniques. Specifically designed projects allow each student to experience the major forms of commercial and fine art printing techniques. The silkscreen process—which includes ability to print on clothing, paper, and other materials is taught in detail. This visual arts course will provide a hands on experience of the printing art form, along with a fundamental knowledge of Graphic Design.

INTRODUCTION TO ANIMATION

Full Year Grades 9-12 5 credits

Students explore the world of animation in this project oriented course. Animation projects cover traditional techniques such as cel, stop-motion, and Claymation in addition to computer animation using

programs such as Adobe Flash CS6. Multimedia and interactive projects teach students to use a variety of media such as video, photography, sound engineering, and internet technologies. The focus is on new uses of technology in art and design as well as providing students with skills for industry. Art concepts such as aesthetics and creativity will be strongly encouraged. This full-year course is a prerequisite for Animation 2.

ANIMATION 2

Full Year Grades 10-12 5 credits

Prerequisite: *Teacher recommendation and a minimum 90 average in Introduction to Animation (or Multimedia & Animation).*

This class enables students to apply animation, computer, and design skills learned in Introduction to Animation (formerly Multimedia and Animation). Students will continue to use the program Adobe Flash (or Animate) to demonstrate more complex concepts in animation art as well as explore the software in greater depth which can include interactive web-based projects, and simple game design. They will learn the basic fundamentals of 3D animation and learn software associated with this medium. Other topics addressed will include new technologies in art such as Augmented, Virtual, and Mixed Reality. Projects created in this class can be used for the student's personal college portfolio in the areas of animation, game design, and interactive graphics.

ADVANCED PLACEMENT DRAWING 1

Full Year Grades 11-12 5 credits

Prerequisite: *A minimum of a 90 average in Drawing & Painting 1, 2, and teacher recommendation.*

This course is designed for students who are college-bound as well as those who will be seeking future artist careers. The primary focus of the class will be on the production of a quality portfolio based on current college requirements and the Advanced Placement Art Examination. Drawing, painting, printmaking, sculpture, as well as experimental media will be studied. Students will take the Advanced Placement Studio Art Drawing exam by submitting a portfolio to the College Board for evaluation.

ADVANCED PLACEMENT DRAWING 2

Full Year Grade 12 5 credits

Prerequisite: *Teacher Approval and a minimum of a 90 average in AP Drawing 1*

This course is designed for students who are college-bound as well as those who will be seeking future artist careers. This course is based on the production of a drawing portfolio which may include works of one or more media. Students will take the Advanced Placement Studio Art Drawing exam by submitting a portfolio to the College Board for evaluation.

ADVANCED PLACEMENT 2-D DESIGN 1

Full Year Grades 11-12 5 credits

Prerequisite: *A minimum of a 90 average in Photographic Design 1 & 2, or Graphic Design 1 & 2, and teacher recommendation*

This course offers students a concentrated program that will enable them to apply for college credit in art. Students will expand their two-dimensional design skills and advance their visual communication skills by exploring a variety of design processes and techniques, and compositional and aesthetic concepts. Emphasis is centered on studio work, the preparation of a portfolio, and the submission of the portfolio for Advanced Placement grade. During the year, students will be offered the opportunity to take the Advanced Placement General Art Examination for college credit.

ADVANCED PLACEMENT 2-D DESIGN 2

Full Year Grade 12 5 credits

Prerequisite: *Teacher approval and a minimum of a 90 average in AP 2D Design 1*

This course is the continuation of Advanced Placement Design Portfolio 1 for students who are college-bound as well as those who will be seeking future artist careers. This course is based on the production of a design portfolio that may include works of one or more media. During the year, students will be offered the opportunity to take the Advanced Placement General Art examination for college credit. Students must have previous art experience (coursework) and teacher approval before enrolling in this course.

ADVANCED PLACEMENT STUDIO ART: 3-D DESIGN

Full Year Grades 11-12 5 credits

Prerequisite: *A minimum of a 90 average in Ceramics 3: The Pottery Wheel and teacher recommendation.*

The AP Studio Art Portfolio course is designed for students who are seriously interested in the practical experience of art and wish to develop mastery in the concept, composition, and execution of their ideas. AP Studio Art is not based on a written exam; instead, students submit portfolios or evaluation at the end of the school year. In building the portfolio, students experience a variety of concepts, techniques, and approaches designed to help them demonstrate their abilities as well as their versatility with techniques, problem solving, and ideation. Students also develop a body of work for the concentration section of the portfolio that investigates an idea of personal interest to them.

VISUAL ART WORKSHOP (INDEPENDENT STUDY)

Full Year Grades 9-12 5 credits

Prerequisite: *Teacher Recommendation Required. Geared toward AP/Academy/Advanced Level Visual Art Students with an extra period available in their schedule.*

This course will provide an additional visual art period (for students who have room in their schedules) that are part of the visual arts academy, AP art courses, or other advanced students. This dedicated studio time will provide an opportunity to build an academy artistic culture, practice self-critique, peer critique, and gain feedback from teachers. The class will provide an opportunity for students to have a true studio experience. Each marking period will feature a sharing or showcase where students will display their work and engage in critique and feedback.

Performing Arts

Through our performing arts courses, students will not only learn the skills needed for a proficient, creative artistic performance, but will also develop the 21st Century Skills that will make them college and career ready upon graduation from high school. Many of our ensembles have won awards at the state and national levels. Some ensembles require an audition: Concert Choir, Honors Concert Choir, Wind Ensemble, Honors Wind Ensemble, Chamber Orchestra, and Honors Chamber Orchestra.

Performing Arts Department Course Offerings

Subject		Grade				Credits
		9	10	11	12	
Dance	Introduction to Dance	X	X	X	X	5.0
	Dance 1	X	X	X	X	5.0
	Dance 2		X	X	X	5.0
	Dance 3*			X	X	5.0
Theatre	Creative Dramatics	X	X	X	X	5.0
	Acting Studio I		X	X	X	5.0
	Theatre Production Workshop*			X	X	5.0
Vocal Music	Concert Choir	X	X	X	X	5.0
	Bella Voce (Honors)	X	X	X	X	5.0
	Chorale (Honors)	X	X	X	X	5.0
Performing Arts Electives	Musical Theatre		X	X	X	5.0
	Performing Arts Workshop	Teacher Recommendation				5.0
Vocal/Instrumental Music	Honors Chorale/Wind Ensemble		X	X	X	5.0
Instrumental Music	Orchestra	X	X	X	X	5.0
	Chamber Orchestra (Honors)	X	X	X	X	5.0
	Concert Band	X				5.0
	Symphonic Band		X	X	X	5.0
	Wind Ensemble (Honors)		X	X	X	5.0
Music Electives	Advanced Placement Music Theory		X	X	X	5.0
	Guitar	X	X	X	X	5.0
	Creating Music With Technology	X	X	X	X	5.0
	School of Rock	X	X	X	X	5.0

** Independent Study offered upon completion of course sequence.*

Common Performing Arts Pathways

The sequences below do not represent all possible course options at each level. Please refer to the course descriptions that follow for prerequisites and complete advisement information.

Course Sequence				
Dance	Introduction to Dance	Dance 1	Dance 2	Dance 3
	Dance 1	Dance 2	Dance 3	Independent Study/Dance 4

Course Sequence				
Theatre	Creative Dramatics	Acting Studio 1	Theatre Production Workshop	Theatre Production Workshop Independent Study

Course Sequence				
Instrumental Music	Concert Band	Honors Wind Ensemble*		Honors Wind Ensemble*
		Symphonic Band		
	Orchestra**	Honors Chamber Orchestra		

*Honors Chorale/Wind Ensemble Hybrid Class

**Advanced 9th grade students may audition to be considered for acceptance into Honors Chamber Orchestra

Course Sequence				
Choral Music	Concert Choir	Honors Chorale		Honors Chorale*
		Honors Bella Voce		

*Honors Chorale/Wind Ensemble Hybrid Class

Extra-Curricular Performance Opportunities

Fall Play, Spring Musical, Chief's Dance Team, Jazz Band, Pit Orchestra, Symphonic Orchestra Marching Band, Noteriet, Tri-M Music Honor Society, National Honor Society for Dance Arts, Dance Company, International Thespian Society

Additional Performing Arts Courses (added as schedule permits)

AP Music Theory (Advanced students may be considered in lieu of pre-requisite course)
 Creating Music With Technology Guitar School of Rock Musical Theatre

A Note about Performing Arts Beyond High School

Admission to a performing arts school depends heavily on student audition. All students applying to performing arts programs must prepare an audition to demonstrate their performance skills and knowledge. More than one performing arts course is necessary to achieve this goal and participation in the full course sequence is optimal.

Performing Arts Course Descriptions

Dance

INTRODUCTION TO DANCE

Full Year Grades 9-12 5 credits

Introduction to Dance is a course designed for any student who has an interest in learning about the art of dance. No previous dance experience is required. In this course, students explore the art of dance as a form of communication and cultural relevance. Students gain an understanding of the 15 concepts of dance, social dance, dance history, anatomy, choreography, and performance. The techniques of ballet, modern, and jazz dance genres may also be explored. Emphasis on the achievement of basic dance skills and the development of body awareness, energy, and rhythm will be fundamental principles of this class. At the end of each unit of study, students will be assessed on his/her/their understanding of the dance concepts. This course will culminate in either a written final exam, or a final year-end performance that includes teacher and student choreography. **NOTE: The performance option requires after-school evening rehearsals.**

DANCE 1

Full Year Grades 9-12 5 credits

Prerequisite: *Acceptance to PHS Dance Academy or Introduction to Dance completion with teacher recommendation*

Dance 1 is a course for any student who wants to continue their dance education and understanding of the dance elements, dance history, choreography, and performance. Completion of Introduction to Dance, previous dance experience, approval by teacher or acceptance to Dance Academy are prerequisites for the course. Dance 1 will deepen students' understanding of the concepts of dance and unlock tools to analyze, interpret, and create dance and dance masterworks. This course will focus on advanced beginner to intermediate technique in ballet, modern, and jazz dance genres. Dance 1 will acquaint students with the process of developing a strong performance quality, through technique class and improvisational tasks. Students will begin to experiment with the art of dance composition. At the end of the Dance 1 year, continuing students will determine his/her/their preferred dance track moving forward in the program. Tracks are: Performance or Choreography. This course will culminate in a final year-end performance that includes teacher and student choreography. All students enrolled in Dance 1 are required to participate in the performance. After-school and evening rehearsals, to prepare for the performance are required.

DANCE 2

Full Year Grades 10-12 5 credits

Prerequisite: *Dance 1 completion with teacher recommendation*

Dance 2 is a course for any current dance student that wants to deepen their knowledge and understanding of choreography, performance, Laban Movement Analysis, and dance history. It is designed for the serious student of dance. Completion of Dance 1 or approval by teacher are prerequisites for the course. Dance 2 will further acquaint students with the skills needed to analyze, interpret, and create dance and dance masterworks. This course will focus on intermediate technique in ballet, modern, and jazz dance genres. The development of the choreographic voice, creative expression, and performance quality will be the primary focus of the year. Students will be expected to create new choreography daily, and present it in both informal and formal settings. This course will culminate in a final year-end performance that includes teacher and student choreography. All students enrolled in Dance 2 are required to participate in the performance. After-school and evening rehearsals, to prepare for the performance, are required. All Dance 2 Choreography Track students will participate in making a collaborative choreography that will be presented at the Spring Dance Concert. All Dance 2 Performance Track students will dance in student choreography, to be presented at the Spring Dance Concert.

DANCE 3

Full Year Grades 11-12 5 credits

Prerequisite: *Dance 2 completion with teacher recommendation*

Dance 3 is a course designed for the advanced dancer, dedicated to the art of making and performing dance. Completion of Dance 2 or approval by teacher are prerequisites for the course. Dance 3 will immerse students in the experience of analyzing, interpreting, and creating dance and dance masterworks. Further development of the choreographic voice, performance quality, and creative expression will be the primary focus of the year. Students will be expected to: create new choreography daily, and present it in both informal and formal settings, articulate and justify his/her/their movement choices, and to experiment with the use of technology in his/her/their work. This course will emphasize the development of intermediate to advanced level dance technique in ballet and modern dance. Audition skills, professional career, and college preparation will also be addressed. This course will culminate in a final year-end performance that includes teacher and student choreography. All students enrolled in Dance 3 are required to participate in the performance. **After-school and evening rehearsals, to prepare for the performance, are required.** All Dance 3 Choreography Track students will participate in making a collaborative choreography that will be presented at the Spring Dance Concert. All Dance 3 Performance Track students will dance in student choreography, to be presented at the Spring Dance Concert.

Theatre

CREATIVE DRAMATICS

Full Year Grades 9-12 5 credits

A first level theatre course that gives an introduction to all aspects of theatre. Students will explore the exciting world of theatre through performance and design. Units of study include the production process, improv, theatre history, jobs of the theatre, and monologue/scene study. On top of gaining a basic theatre knowledge, students will develop important 21st century life skills such as confidence, collaboration, and creativity. Students enrolled in the course will be required to attend one PHS production.

ACTING STUDIO 1

Full Year Grades 10-12 5 credits

Prerequisite: *Teacher recommendation and a minimum 85 average in Creative Dramatics.*

A second level theatre course that focuses on the development of the actor. Students will expand and strengthen the performance skills they developed in Creative Drama while working on more challenging and advanced material. Units of study include pantomime, voice for the actor, monologue/scene study, directing, and playwriting. Students will also enhance their analysis and critique methodologies through self and peer evaluations. Students enrolled in the course will be required to attend one PHS production.

THEATRE PRODUCTION WORKSHOP

Full Year Grades 11-12 5 credits

Prerequisite: *Teacher recommendation and a minimum 90 average in Acting Studio.*

This third (and fourth) level theatre course prepares students for real-world experiences in the arts, higher education, and future careers. In this course, there are opportunities for students to perform in or design a production for a live audience, manage and direct a one-act play, analyze and work on advanced theatrical text, and prepare audition/interview material. Students in this course will be required to either attend or participate in the Piscataway High School evening theatre productions. Students will also be required to attend after school rehearsals in preparation for the Children's Theatre Tour and the Director's Showcase. Dedicated acting students can take a second year of this course as the material, performances, and experiences will be different with each iteration of the course.

Note: Year 2 of Theatre Production Workshop will be called: Theatre Production Workshop Independent Study. Prerequisite: Teacher recommendation and a minimum 90 average in Theatre Production Workshop

Music

CONCERT CHOIR

Full Year Grades 9-12 5 credits

This is a beginning level course that requires no singing experience or audition. All are welcome! Course topics include vocal technique, musicianship, sight-singing, ensemble skills, and performance. Students will enjoy studying a variety of music in a supportive environment. This performance-based course will include two mandatory evening performances.

BELLA VOCE (HONORS)

Full Year Grades 9-12 5 credits

Prerequisite: Acceptance by audition and director approval. See Mrs. Suozzo by January 15th to schedule your audition.

This is a selective, auditioned ensemble open to soprano and alto voices with an advanced level of maturity, responsibility and commitment in rehearsal and performance. Students will be expected to demonstrate a high level of skill in singing, reading music, and rehearsal techniques. Independent practice is a requirement for the course. Students wishing to take this course must be aware that this group is performance-oriented and students are expected to attend a number of mandatory performances each year.

CHORALE (HONORS)

Full Year Grades 9-12 5 credits

Prerequisite: Acceptance by audition and director approval. See Mrs. Suozzo by January 15th to schedule your audition.

This is a selective, auditioned ensemble open to soprano, alto, tenor, and bass voices with an advanced level of maturity, responsibility and commitment in rehearsal and performance. Students will be expected to demonstrate a high level of skill in singing, reading music, and rehearsal techniques. Independent practice is a requirement for the course. Students wishing to take this course must be aware that this group is performance-oriented and students are expected to attend a number of mandatory performances each year.

CHORALE/WIND ENSEMBLE (HONORS)

Full Year Grades 10-12 5 credits

Prerequisite: Acceptance by audition with choral director and wind ensemble director approval. Students must audition successfully for both Concert Choir and Wind Ensemble.

This combined honors course is an option for accelerated students who qualify for both Concert Choir and Wind Ensemble. Students who successfully audition for both ensembles will alternate class attendance between the Wind Ensemble and Concert Choir courses that will run concurrently. Concert Choir and Wind Ensemble are selective, audition-only ensembles open to students with an advanced level of maturity, responsibility, and commitment in rehearsal and performance. **Please Note: Students wishing to take this combination course must be aware that these ensembles are performance-oriented and students are expected to attend a number of mandatory performances for both Concert Choir and Wind Ensemble throughout the school year.**

CHAMBER ORCHESTRA (HONORS)

Full Year Grade 9-12 5 credits

Prerequisite: Acceptance is by audition only.

Honors Chamber Orchestra is a select, performance-based course that is open to students who audition successfully for admission to the Chamber Orchestra. Auditions for this group are held at the beginning of the school year. Honors Chamber Orchestra is an advanced course that explores more advanced

repertoire than Orchestra. Through the rehearsal and study of challenging repertoire, students will study topics in music theory, music history, and critique. Class work, quizzes, and lessons, as well as attendance at performances are essential in determining the band student's grades. The Chamber Orchestra performs an average of 5 times per year. Student participation in these performances is mandatory. Enrolled students will continue to develop skills in sight-reading, ear training, and string ensemble study.

ORCHESTRA

Full Year Grades 9-12 5 credits

Prerequisite: *Middle/High School Level Proficiency on Instrument*

Orchestra is a performance-based course that is open to all students who have participated in a school orchestra program for at least three years. The orchestra performs an average of 5 times per year. Student participation in these performances is mandatory. Enrolled students will continue to develop skills in sight-reading, ear training, and string ensemble study.

CONCERT BAND

Full Year Grade 9 5 credits

Prerequisite: *Middle School Level Proficiency on Instrument*

Concert Band is open to all students in grade 9 who have participated in an instrumental music ensemble at the middle school level. It is a performance course that stresses the fundamental of good musical performance. In this course, ninth grade students will continue to develop foundational music skills that will lead to proficiency in instrumental music. Attendance at performances and rehearsals is mandatory. Mid-semester entry into the course is by audition only. **Note: This course is mandatory for any ninth grade student planning to participate in the marching band program.**

SYMPHONIC BAND

Full Year Grades 10-12 5 credits

Prerequisite: *High School Level Proficiency on Instrument*

Symphonic Band is open to all students in grades 10-12 who have participated in an instrumental music ensemble at the middle and high school level. This performance-based course stresses the fundamentals of good musical performance. In this course, students will continue to develop foundational music skills that will lead to proficiency in instrumental music. Through the rehearsal and study of challenging repertoire, students will study topics in music theory, music history, and critique. Attendance at performances and rehearsals are mandatory. Mid-semester entry into the course is by audition only.

WIND ENSEMBLE (HONORS)

Full Year Grades 10-12 5 credits

Prerequisite: *Acceptance is by audition only.*

The Wind Ensemble is a select performance-based group that requires a successful audition for admission to the course. Auditions for this group are held in late January or early February for the following year and are open to all students in grades 9-11 with prior band experience. Wind Ensemble is an advanced course that explores a more advanced repertoire than Concert Band and Symphonic Band. Through the rehearsal and study of challenging repertoire, students will study topics in music theory, music history, and critique. Class work, quizzes, and lessons, as well as attendance at performances are essential in determining the band student's grades.

ADVANCED PLACEMENT MUSIC THEORY

Full Year Grades 10-12 5 credits

Prerequisite: *Acceptance by portfolio of student work or approval by music teacher.*

This course will allow those students who have an aptitude for music theory and appreciation to further learn advanced skills that will make them eligible to receive AP credit. Students will develop their recognition of understanding materials and processes through identification of musical scores while developing an understanding of compositional techniques. Skills developed will include notation, composition, and knowledge of terminology along with performance, analysis, and oral skills.

CREATING MUSIC WITH TECHNOLOGY

Full Year Grades 9-12 5 credits

Prerequisite: *Proficiency in reading music is necessary. Some basic musical knowledge and experience is required and will need to be demonstrated.*

This course is designed for the student who wants to learn to use technology and MIDI keyboards for basic musical composition. Beginning with an understanding of musical elements, you will then be introduced to advanced composing and recording techniques. This could include arranging for live performances, recording and editing live and digital performances, and creating music to accompany video segments.

GUITAR

Full Year Grades 9-12 5 credits

Students will learn the parts of the guitar, how to tune, and how to read notes and rhythms on the treble clef. They will play melodies, learn about chord progressions, and play basic chord progressions through various strumming patterns. Students will perform individually and as an ensemble. Students will also compose their own songs.

SCHOOL OF ROCK

Full Year Grades 9-12 5 credits

Prerequisite: *At least two years of playing experience on an instrument.*

This course will survey the history of rock and roll through study and performance. Each unit will explore the history, musical style, and artist of four time periods. Each student will play and perform at least three selections of music from each era on their particular instrument. Time periods include: (1) 1950-1960: The beginning of Rock and Roll and the introduction of the blues in the Rock and Roll Genre; (2) 1960-1970: The development of hard rock; (3) 1970-Present: Investigation of different types of developmental music through this time. Instrumentation is limited to electric guitar, bass guitar, drum set, and/or vocal. The approach is to form 3-5 small group ensembles of 4-5 members allowing all members of the class to participate in a group. Each unit will end with a performance opportunity.

Performing Arts

MUSICAL THEATRE

Full Year Grades 10-12 5 credits

Prerequisite: *A Vocal Music, Dance, or Theatre Course with a final grade of 90 or higher.*

Musical Theatre will allow students to explore the collaboration and connections that exist in this art form with support from three performing arts areas: Dance, Theatre, and Vocal Music. This will be open to students that have taken at least one course in one of the three areas of focus (Dance, Theatre, and Vocal Music). This course supports students that are bound for college musical theatre programs, and draws on student leadership that have aspirations in this performing arts area. The primary focus of the course is on the process and skills of musical theatre.

PERFORMING ARTS WORKSHOP (INDEPENDENT STUDY)

Full Year Grades 9-12 5 credits

Prerequisite: *Teacher Recommendation Required. Geared toward AP/Academy/Advanced Level Performing Arts Students with an extra period available in their schedule.*

This course will provide an additional performing arts period (for students who have room in their schedules) that are part of the performing arts academy, AP and Honors courses, or other advanced students. The class provides an opportunity to build an academy artistic culture, practice self-critique, peer critique, and gain feedback from teachers. The class will also provide an opportunity for students to have a true studio/student-led rehearsal experience. Each marking period will feature a sharing or showcase where students will display their work and engage in critique and feedback.

Media Technology

INTRODUCTION TO TELEVISION BROADCASTING & DIGITAL FILMMAKING

Full Year Grades 9-12 5 credits (Class size limited to 15)

Students will be introduced to the basic operation of video and audio hardware and develop an understanding of the facilities and personnel needed to operate a television studio. They will also get experience planning and executing recordings at remote locations and become familiar with the Adobe Premiere Pro editing software suite. Communication, brainstorming, troubleshooting, and team-building skills will be developed through the production of class projects which may include news programs, school projects, music videos, dramatic short films and public service announcements. Job opportunities in the TV and multimedia industries will be explored.

DIGITAL VIDEO EDITING

Full Year Grades 9-12 5 credits (Class size limited to 16)

Students will learn how to edit video programs using the Final Cut Pro and/or Adobe Premiere Software Suites including Apple Motion and/or Adobe After Effects. Motion and 3D transitions and effects are covered, as well as key framing and basic animation. Many student video projects will be suitable for: cablecasting on the local public access station; importing into a software program such as PowerPoint; posting or streaming on a hosting website such as YouTube or Vimeo; storing on a computer server for multiple user access; or exporting to an external storage device.

TELEVISION BROADCASTING 2

Full Year Grades 10-12 5 credits (Class size limited to 15)

Students continue to create their own television programs using state of the art equipment including studio and field cameras, audio and video mixing boards, graphics software, various types of microphones, and teleprompters. Recording will take place in our two TV studios, and “on location” throughout the school and at home. In addition to mastering the operation of hardware and software, focus will be placed on program development from the pre-production phase (project concept and proposal; storyboarding, scriptwriting, planning) through the post-production phase (digital editing, graphics creation, music composition, exporting files, and streaming). Video programs will be cablecast on the local public access cable channel, featured on the PWAY-TV YouTube channel and may be streamed or downloaded for distribution.

RADIO BROADCASTING & AUDIO PRODUCTION

Full Year Grades 9-12 5 credits (Class size limited to 16)

This course introduces students to radio broadcasting and audio production work in a studio and field setting. Students produce content for the high school radio station, 90.3FM The Pulse. This course explores aspects of the radio industry including radio production, formulating an on-air personality, promoting oneself to an audience, writing for radio news, plus reviewing key parts of radio broadcast history. Students will gain knowledge of operating professional audio recording equipment present in a professional broadcast facility. Students will generate outlines, show breakdowns and scripts for audio productions using industry standard formats and content management systems. Students will become familiar with radio station content management software, as well as professional grade audio editing software (including but not limited to Adobe Audition, Garageband, Logic Pro, Final Cut Pro, and Adobe Premiere Pro CC.) Students will also gain experience and learn best practices pertaining to independent and collaborative endeavors, field and studio recording, and digital audio editing/mixing.

Career Readiness, Life Literacies and Key Skills

The State of New Jersey mandates that all students achieve the New Jersey Core Curriculum Content Standards for Career Readiness, Life Literacies and Key Skills (Family/Consumer Science, Business Administration & Technology Education).

At PHS, all students satisfy this graduation requirement through

- The opportunity to take a wide variety of practical arts/career arts classes.
- Career activities which are infused into existing courses
- Participation in the High School Skills Based Career Program

Career and Technical Education

Specialized courses in Career and Technical Education (CTE) are aligned to the NJ Student Learning Standards and help students develop attitudes, skills, and the work ethic necessary for future success. CTE courses offer students the opportunity to explore, learn, and apply skills related to the real and simulated work place. In order for our school district to develop a comprehensive education for our students, the following charts will show the wide variety of courses offered in this area. The course descriptors that follow the charts are categorized under the department that developed the offering.

Career and Technical Education Department Course Offerings

<i>SUBJECT</i>	GRADE				<i>CREDITS</i>
	9	10	11	12	
Introduction to Engineering Design (Project Lead The Way)	X	X	X		5.0
Digital Electronics (Project Lead The Way)		X	X	X	5.0
Principles of Engineering (Project Lead The Way)			X	X	5.0
Civil Engineering & Architecture (Project Lead The Way)		X	X	X	5.0
Electricity/Electronics 1	X	X	X	X	5.0
Print Production 1	X	X	X	X	5.0
Print Production 2		X	X	X	5.0
Print Production 3			X	X	5.0
Print Production Senior Option				X	15.0
Publishing and Marketing a Yearbook		X	X	X	5.0
Wood Technology 1	X	X	X	X	5.0
Wood Technology 2		X	X	X	5.0
Wood Technology 3*			X	X	5.0

∇ *Senior Option*

* *Independent Study offered upon completion of sequence.*

5.0 Credits – Full Year

Career and Technical Education

The Career and Technical Education programs are designed to offer students hands-on experiential learning opportunities that incorporate many of the 21st Century Skills, such as problem solving, critical thinking collaboration and the appropriate use of technology. Through a national engineering program, **Project Lead the Way (PLTW)**, our students apply what they know, identify problems, find unique solutions, and lead their own learning. Students investigate topics such as engineering and sustainability, digital electronics and circuit design, giving them an opportunity to learn about different engineering disciplines before beginning post-secondary education or careers.

There are a wide variety of courses offered by the Career and Technical Education Department that help students develop attitudes, skills, and the work ethic necessary for future success. The courses are Engineering & Design, Architectural Drawing, Electricity, Digital Electronics, Print Production, Wood Technology and Radio & TV Broadcast Technology. These courses offer students the opportunity to explore, learn, and apply skills related to the real workplace.

INTRODUCTION TO ENGINEERING DESIGN (PLTW)

Full year Grades 9-10 5 Credits

Prerequisite: *None (interests in math, science and technology)*

This first level engineering class is part of the Project Lead the Way (PLTW) national engineering curriculum. Through hands-on learning, students will be able to apply practical knowledge gained in math and science to create, design and build solutions to real world challenges in post-secondary education and STEM-related fields. Students will learn and apply the design process, acquire strong teamwork and communication proficiency and develop organizational, critical thinking and problem solving skills. Engineering designs are developed through sketching and Computer Aided Design (CAD) software. This course is a prerequisite for advanced classes: Principles of Engineering and Architecture.

PRINCIPLES OF ENGINEERING (PLTW)

Full year Grades 10-11-12 5 Credits

Prerequisite: *Introduction to Engineering Design (PLTW)*

Principles of Engineering is an advanced course that is essential for students interested in any area of Engineering or related technologies. Students will continue to improve their AUTOCAD drawing skills. They will expand their design and problem-solving skills using AUTOCAD Inventor software. Emphasis on teamwork will be practiced throughout the class. The teams will design and develop prototype models using 3D printing and fabrication techniques. Electronics and Mechanical engineering will be explored by constructing and programming VEX robots. Students explore alternative energy solutions working with solar panels and hydrogen fuel cells.

CIVIL ENGINEERING AND ARCHITECTURE

Full year Grades 10-11-12 5 Credits

Prerequisite: *Introduction to Engineering Design (PLTW)*

Architectural Drawing is a challenging course that combines the basic elements of design and construction. The student, assuming the role of the architect, will develop a set of plans for a residential home. Areas that will be covered include preliminary design, floor plans, foundation plans, elevation drawings and a 3-dimensional presentational drawing. The student will sharpen his overall communication and design skills by working on several challenging projects.

ELECTRICITY/ELECTRONICS 1*Full year Grades 9-10-11-12 5 Credits*

This course covers all of the fundamentals necessary for those students who may either want a better understanding of the principles of Electricity and Electronics or for those who plan to pursue a career in Electricity, Electronics, or Engineering. Students will learn theory which is reinforced with hands-on lab activities. Some of the topics discussed include Scientific and Engineering Notation, Circuit Kits and Test Equipment, Direct Current and Alternating Current, Resistance, Ohm's Law, Series and Parallel circuits, Power, House Wiring, Capacitance, Inductance, Motors, Prototype Bread Boards, Computer Systems, Binary Number System, Transistors, Logic Gates, Integrated Circuits, Microcontrollers, Programming, Rocketry, and Soldering.

DIGITAL ELECTRONICS (PLTW)*Full Year Grades 10-11 5 credits*

Prerequisite: *Successful completion of Electricity/Electronics 1 course (with a grade ≥ 85 and Teacher Recommendation)*

or Successful completion of Introduction to Engineering Design (PLTW)

Digital Electronics™ (DE) is the study of electronic circuits that are used to process and control digital signals. The focus is on understanding and implementing circuit design skills, not just understanding the scientific principles that make a circuit work. This rigorous course will expose students to the foundation of electronics and the Circuit Design Process, Combinational and Sequential Logic Design, Microcontrollers to control real world systems, teamwork, communication methods, engineering standards, and technical documentation. Utilizing the activity-project-problem-based (APPB) teaching and learning pedagogy, students will analyze, design and build digital electronic circuits. While implementing these designs students will continually hone their interpersonal skills, creative abilities and understanding of the design process. The course applies and concurrently develops secondary level knowledge and skills in mathematics, science, and technology.

PRINT PRODUCTION 1*Full year Grades 9-12 5 credits*

Print Production 1 covers basic principles in graphic design, print communication and an introduction to Silkscreen Printing. Specifically designed projects will introduce techniques needed to create magazine, CD covers and 4 Color Separation for silkscreen printing. Adobe Photoshop and Illustrator will be introduced and used to create projects for print. No previous experience in these programs are required.

PRINT PRODUCTION 2*Full year Grades 10-12 5 credits*

Prerequisite: *Print Production 1 or Graphic Design 1 or consent of teacher.*

Print & Production 2 is a project-oriented course, which will provide the student with an in-depth understanding of graphic arts and print production. The use of computer graphics, print communications and design, computer typesetting and word processing is expanded. This course will devote time to advertising design and layout, multicolor silkscreen printing, (which includes ability to print on clothing, paper, and other materials) and embroidering will be introduced and used to embellish hats jackets and shirts. Project development will be in the areas of personalized stationery, greeting cards, pamphlets, brochures, T-shirts/hats and business cards.

PRINT PRODUCTION 3*Full year Grades 11-12 5 credits*

Prerequisite: *Print Production 2 or the consent of teacher.*

Graphic Design is a high-paying, diversified field that needs knowledgeable people with good work habits. You will be given a combination of live jobs and projects covering these instructional units: screen printing, digitizing for embroidering, off-set Press operation, bindery techniques, word processing, composition and layout and design, vinyl cutting, sign making and plate making. *You will experience actual shop conditions and will learn basic salable skills preparing you for a career upon graduation* or skills necessary for further education towards a college degree.

PRINT AND PRODUCTION STUDENT OPTION

Full year Grade 12 15 credits

See description for Student Option.

WOOD TECHNOLOGY 1

Full year Grades 9-10-11-125 Credits

This course is a project oriented woodworking experience, with emphasis on good work habits and safety. Project mapping, from concept to sketching, drafting, material selection, cut lists, fabrication and finishing will be achieved. Methods of simple joinery, adhesion and fastening will also be covered. Once students showcase skills using traditional hand tools; power tools and machines will be introduced. CNC (Computer Numeric Control) machines will be introduced towards end of year. Students will develop an appreciation for carpentry and cabinet/furniture making. Required projects, as well as student-selected projects, will be constructed within a student's ability and materials available.

WOOD TECHNOLOGY 2

Full Year Grades 10-11-125 Credits

Prerequisite: *Wood Technology 1*

This course is intended to enhance the student's skills in use of hand/power tools and machines. This is a project-oriented course with emphasis on furniture fabrication. Students will use traditional and contemporary methods to further their skill level. Students will expand their knowledge and usage of joinery. Fine craftsmanship and safe work habits are stressed throughout this course.

WOOD TECHNOLOGY 3

Full Year Grades 11-12 5 Credits

Prerequisite: *Wood Technology 1 and Wood Technology 2*

This advanced course in woodworking focuses on cabinetry and fine woodworking. Students will ready themselves to start a career in carpentry, or further their hobby interests. Students will focus on a smaller number of projects, which are more detailed in design and finish. Towards the end of the year, students are expected to map out their own budget list, designs and fabrications along with respective deadlines. Safe work habits and fine craftsmanship will be stressed throughout the course.

Business

(Career and Technical Education Department)

The field of business is for individuals who are looking for an exciting career – one that offers excellent salaries, pleasant working conditions, and many opportunities for advancement.

The Business Education Program is designed to meet the needs of three groups of students – those interested in immediate business careers, those planning to pursue business training in college or business school, and those interested in taking business subjects for personal use.

SUGGESTED BUSINESS PROGRAM OPTIONS

- The **Business Management & Administration** option prepares students for careers in administrative services, business information technology, general management, business financial management and accounting, human resources and operations management. College majors could include accounting, economics, management and global business, finance, **entrepreneurship**, organizational behavior, marketing or pre-law.
- The **Marketing** sequence prepares students for careers in marketing communications, marketing management, marketing research, management and entrepreneurship, merchandising and professional sales and marketing. College majors could include marketing, retail merchandising and management, leisure industries, tourism, and hospitality.

Business Course Offerings

<i>SUBJECT</i>	GRADE				<i>CREDITS</i>
	9	10	11	12	
Accounting 1	X	X	X	X	5.0
Honors Accounting *			X	X	5.0
Business Organization & Management* ^R		X	X	X	5.0
AP Macroeconomics* ^R			X	X	5.0
Personal Finance ^R	X	X	X	X	2.5
Marketing	X	X	X	X	5.0
Entrepreneurship ^R		X	X	X	2.5
Web Pages	X	X	X	X	2.5/5.0
Sports and Entertainment Business	X	X	X	X	2.5
Student Option	X	X	X	X	5.0
Cooperative Education ∇				X	10, 15 or 20

∇ Senior Option

* Dual credit offered – Honors courses

^R Meets NJ State Business, Economics, Entrepreneurship, Financial Literacy requirement

2.5 Credits – Semester Course

5.0 Credits – Full Year

10.0 Credits – Full Year/Double-Period Field Experience

15.0 Credits – Full Year/Triple-Period Field Experience

**Business Organization and Administration
Suggested Course Pathway Options**

Business Management & Administration	Marketing
<p style="text-align: center;"><u>Grade 9</u> Accounting 1 (year) Web Pages (sem., year)</p> <p style="text-align: center;"><u>Grade 10</u> Accounting 1 (year) Personal Finance (sem.) Business Org. & Management (year) Entrepreneurship (sem.) Student Option (year)</p> <p style="text-align: center;"><u>Grade 11</u> Accounting 1(year) Personal Finance (sem.) Law & Business (year) Business Org. & Management Honors (year) AP Macroeconomics (year) Student Option (year)</p> <p style="text-align: center;"><u>Grade 12</u> Accounting 1 (year) Honors Accounting (year) Personal Finance (sem.) Law & Business (year) Business Org. & Management (year) Student Option (year) AP Macroeconomics (year)</p> <p style="text-align: center;"><u>Suggested Electives</u> Cooperative Education (year) Entrepreneurship (sem.) Marketing (year) Web Pages (sem., year)</p>	<p style="text-align: center;"><u>Grade 9</u> Marketing (year)</p> <p style="text-align: center;"><u>Grade 10</u> Marketing (year) Personal Finance (sem.) Sports & Entertainment (sem.) Student Option (year)</p> <p style="text-align: center;"><u>Grade 11</u> Marketing (year) Personal Finance (sem.) Law & Business (year) Sports & Entertainment (sem.) Entrepreneurship (sem.) Student Option (year)</p> <p style="text-align: center;"><u>Grade 12</u> Personal Finance (sem.) Accounting 1 (year) Cooperative Education (year) Business Org. & Management (year) Student Option (year) Marketing (year)</p> <p style="text-align: center;"><u>Suggested Electives</u> Entrepreneurship (sem) AP Macroeconomics (year) Senior Option Accounting 1 (year) Web Pages (sem., year)</p>

ACCOUNTING 1*Full year Grades 9-11 5 credits*

Accounting 1 is a full year, 5 credit- course, offered to students in ninth, tenth, and eleventh grade. Accounting provides a basic introduction to the accounting cycle, accounting process financial statements special application, interpretation and use of data and compliance. The course is based upon the New Jersey Student Learning Standards for Career and Technical Education, which includes the mastery of fundamental accounting concepts, skills and competencies essential to making informed business decisions.

ACCOUNTING 2*Full year Grades 10-12 5 credits*

Accounting 2 is a full year, 5 credit course, offered to students in tenth, eleventh, and twelfth grade. Accounting 2 provides a introduction to the accounting for payroll and payroll taxes, accounting process corporate financial statements, accounting for plant assets/inventory, accounting for partnerships, recording international/internet sales and use of data and compliance. The course is based upon the New Jersey Student Learning Standards, which includes the mastery of fundamental accounting concepts, skills and competencies essential to making informed business decisions.

HONORS ACCOUNTING*Full year Grades 11-12 5 credits****Prerequisite:*** Accounting 1 & Accounting 2

Honors Accounting the course is based upon the New Jersey Student Learning Standards for Career and Technical Education and will prepare students for the rigor of college accounting. Students will develop an understanding of double-entry accounting. Topics covered include the following: accounting cycle, accounting systems, internal controls, journals, receivables and payables, accruals and deferrals, inventory, fixed assets and depreciation, and financial statement preparation and analysis. Computerized accounting systems will be implemented for an up-to-date accounting experience. The core material for this course is similar to Accounting 2; however, more topics are covered, the pace is accelerated and expectations are higher. This course is highly recommended for motivated students planning to enter a college business program. Students can gain dual credit from Middlesex Community College and Piscataway High School by obtaining a “C” or higher in this course.

BUSINESS ORGANIZATION AND MANAGEMENT (HONORS)*Full year Grades 10-12 5 credits****Prerequisite:*** GPA of 80 or higher

This **college-level** course will include understanding the planning, supervision, control, and performance of activities involved in running a business. The problems of human relations and labor management will also be covered. Students will also understand the functions of human resources, marketing, purchasing, production, and finance. This course will be offered for dual credit, from Middlesex County College as well as from Piscataway High School.

AP® MACROECONOMICS*Full Year Grades 11-12 5 Credits****Prerequisites:*** Overall GPA of 85+; Completion of Algebra 2 with course grade of 85+

The AP Macroeconomics course provides students with a thorough understanding of the principles of economics and how economists use those principles to examine aggregate economic behavior. Students learn how the measures of economic performance, such as gross domestic product (GDP), inflation, and unemployment are constructed and how to apply them to evaluate the macroeconomic conditions of an economy. The course recognizes the global nature of economics and provides ample opportunities to examine the impact of international trade and finance on national economies. Students should expect to

participate in and benefit from frequent interactive discussions of current news/business events and how they relate to course theory.

MARKETING

Full year Grades 9-12 5 credits

Marketing is an elective course that enables you to BRAND yourself. Learn how to INFORM, PERSUADE, and CONVINCED others to hire you or to purchase a product that you have created! You have the opportunity to receive job recommendations from the Marketing Teacher, and obtain Scholarships, with a combination of business courses. Areas covered consist of: marketing, fashion, advertising, display, business communications, salesmanship, and all phases of employability skills for Marketing. Class utilizes computer knowledge for reports, marketing plan, and career development. As a member of the class, students participate in the operation and marketing phases of the school store.

ENTREPRENEURSHIP

Semester Grades 10-12 2.5 credits

Do you know what it takes to create your own company? This course will take you through the process of creating, owning, and running your own business. You will learn how to become an entrepreneur and select a product or service to sell, determine who your customers are, learn how to market your business, obtain financing, manage your employees, and more. This course will take you on an exciting adventure toward realizing your dream of owning your own business.

PERSONAL FINANCE

Semester Grades 9-12 2.5 Credits

Understanding and managing personal finances are key to one's future financial success. This course is based on New Jersey Student Learning Standards and presents essential knowledge and skills to make informed decisions about real world financial issues. Students will learn how choices influence occupational options and future earning potential. Students will also learn to apply decision-making skills to evaluate career choices and set personal goals. The course content is designed to help the learner make wise spending, saving, and credit decisions and to make effective use of income to achieve personal financial success.

The purpose of the course is:

1. To teach about the financial planning process.
2. To offer the opportunity to apply the process through assignments.
3. To encourage students to take control of their finances.

SPORTS AND ENTERTAINMENT BUSINESS

Semester Grades 9-12 2.5 credits

Sports and Entertainment Marketing is a half year, 2.5 credit-course, offered to students in ninth, tenth, eleventh, and twelfth grade. Sports and Entertainment Marketing provides a basic introduction to the scope and importance of Sports and Entertainment marketing in a global economy. The course is based upon the New Jersey Student Learning Standards, which includes business management, entrepreneurship: communication and interpersonal skills; economics and professional development foundations. Various relevant career options will be explored within these fields. Critical thinking and decision-making skills will also be developed in a mock business environment.

WEB PAGES

Semester/Full year Grades 9-12 2.5/5 credits

Learn to plan, develop, and create well-designed Web pages that combine effective navigation with the balanced use of graphics, text, and color. Students will learn to create Web pages that let users easily

and quickly access information. They will be creating Web pages using the HTML programming language and Dreamweaver and/or popular online services. This course is primarily project-based.

STUDENT OPTION

Full Year Grades 11 & 12 5, 10, 15 or 20 credits

Prerequisites:

- *Application*
- *2 Letters of Recommendation*
- *Approval from Student Option Coordinator.*

Students gain experience working with their mentor to best suit their career objectives to create a training plan. They gain on-the-job training (internship) right here at PHS or within the district or outside of the district. Students will accomplish many different tasks. They also learn business skills in preparing paperwork for an unpaid internship, completing a resume, cover letter and thank you letter. Other assignments include completing a “reflective journal” each day, conducting a career research, job shadow, creating a career portfolio and meeting the Student Option Coordinator to discuss any issues and successes in their training.

COOPERATIVE EDUCATION

Full Year Grade 12 10, 15, 20 credits

Prerequisites:

- *Approval from Cooperative Education teacher*

Application

Want to earn money, work-experience, and credit all in one?! This course/experience provides a combination of classroom information and on-the-job training for development and readiness in the 21st century. Classroom discussions relate to current job positions. Work-based learning provides conditions for learning with real deadlines, customer contact, problem solving, and critical thinking. This course provides survival skills for the world of business. Students will be prepared to enter the complex global economy in order to participate in fully and effectively to be a productive member of society. The New Jersey Core Curriculum Content Standards require that students learn Workplace Readiness Skills to prepare for a successful and knowledgeable entry into the workforce. Our Cooperative Education Program provides students with a first-hand opportunity to work as they attend school as well as acquire graduation credits. Classroom instruction directly relates to the student’s cooperative business, industrial, and marketing work experience. The course covers various aspects of employment, including preparing resumes, interviewing, job training, human relations, and case problems related to their on-the-job training.

Family and Consumer Science
(Career and Technical Education Department)

Family and Consumer Science Course Offerings

<i>SUBJECT</i>	GRADE				<i>CREDITS</i>
	9	10	11	12	
Foods and Nutrition	X	X	X	X	5.0

FOODS AND NUTRITION

Full year Grades 9-10-11-12 5 Credits

This course provides the students with the opportunity to explore the basic fundamentals of food preparation through practical and theoretical experiences. Instructional units cover the preparation of various food items, safety, sanitation, recipe interpretation, career awareness, and kitchen organization. Special emphasis is placed upon nutrition and the ability to relate nutrition to optimal maintenance of health and the prevention and treatment for food related deficiency and disease.

AIR FORCE JUNIOR ROTC

Course Offerings

Blended/Combined Curriculum Pathway		Aviation Technical Curriculum Pathway	
Cadet's Enrollment Year	Course Title	Cadet's Enrollment Year	Course Title
Cadet Year 1	Introduction to AFJROTC !	Cadet Year 1	Introduction to AFJROTC
Cadet Year 2	Personal Finance for Cadets/AS Subsection "X"	Cadet Year 2	Science of Flight/Personal Finance for Cadets
Cadet Year 3	AFJROTC SECTION "X"	Cadet Year 3	Aviation Honors Gnd School
Cadet Year 4	AFJROTC SECTION "X" OR AFJROTC Management	Cadet Year 4	AFJROTC SECTION "X" OR AFJROTC Management

Introduction to AFJROTC dual credits Freshmen Seminar Science of Flight pre-requisite for Aviation Honors Ground School
 Personal Finance for Cadets satisfies graduation requirement

AFJROTC Management only for fourth year cadets
 SASI judgement/approval to waive course sequence

Blended curriculum consists of four Sections (A-D) rotating yearly.

Each Section contains a Leadership and Aerospace Subsection

AFJROTC LEADERSHIP EDUCATION AND AEROSPACE SCIENCE Program Syllabus

The Air Force Junior ROTC program provides students with an opportunity to learn and apply leadership skills while also learning about aerospace science and its career opportunities. The curriculum includes Aerospace Science (AS), Leadership Education (LE), and Wellness/Physical Training components. **Students incur no military obligation whatsoever.** Instructors are devoted to providing quality classroom experiences to the students as well as emphasizing the concept of high standards in citizenship, leadership, and scholarship which are beneficial to all students as they progress in life. During the program, students earn five elective credits for each year of Aerospace Science/Leadership Education taken, with students able to enter and leave the program the same as any other elective program. Students are asked to participate in a wide range of academic and leadership activities both in and out of the classroom. Students wear the Air Force uniform once each week. Uniforms are provided free of charge by the United States Air Force. Students perform physical training once a week which consists of warm-ups, calisthenics, aerobic exercises, and other sports activities. Advanced students are placed in positions of responsibility and given full-supervised control of the Cadet Group as leaders and managers. These students conceptualize, plan, organize and implement cadet activities. All students are given opportunities to demonstrate learned skills using performance-based assessments. The Air Force Junior ROTC program offers leadership, community service and college ROTC scholarship opportunities for the cadets. Aerospace Science, Leadership Education, and Wellness are simultaneously taught in each academic year. The course is divided into two pathways: blended and aviation. Courses are either standalone or SECTIONS comprised of AS and LE Subsections that can be replaced with a corresponding AS or LE elective from the AFJROTC Curriculum Guide as necessary. Both pathways begin with INTRODUCTION TO AFJROTC. The blended pathway covers a wide variety of topics over a four year period. The Aviation pathway directs completion of the Science of Flight and Aviation Honors Ground School courses. The intent of the Aviation Pathway is for cadets to prepare for and complete the Federal Aviation Administration Private Pilot written exam. Both pathways' four year regimen conclude with the AFJROTC SECTION being delivered in a student's fourth year **OR** AFJROTC MANAGEMENT for cadets appointed to leadership positions within the Corps.

UNIFORM DAY: THURSDAY and Special Events. Cadets are required to wear their Physical Training uniform (T-shirt) during wellness instruction/workouts. Cadets may wear ABUs and/or Flight Suits as allowed by AFJROTC directives on designated days.

GRADING POLICY

A. A student who has previously failed or been removed from the AFJROTC course for the year may only re-enroll after sitting out of the program for a year, and with the approval of the SASI. Approval is based on the results of a personal interview with the student and/or parent.

HABITUAL NON-WEAR OF THE UNIFORM AND FAILURE TO MAINTAIN STANDARDS WILL RESULT IN A FAILING GRADE AND DISMISSAL FROM THE PROGRAM. Grades will be computed in accordance with standard district grading policy.

I. BLENDED EDUCATION PATHWAY OBJECTIVES AND GOALS:

INTRODUCTION TO AFJROTC

Grades: 9-12 Full Year 5 credits (In lieu of Freshman Seminar)

LE SUBSECTION A

Traditions, Wellness, and Foundations of Citizenship

1. Know the importance of AFJROTC history, mission, purpose, goals, and objectives.
2. Know military traditions and the importance of maintaining a high standard of dress and appearance.
3. Develop a core understanding of the US Constitution including the Bill of Rights
4. Analyze ethics, values, and morals of various organizations

Communication, Awareness, and Leadership

1. Apply the key factors of effective written communications.
2. Explore aspects of digital citizenship and responsibility
3. Develop an appreciation for information and media literacy.

Life Skills and Career Opportunities

1. Analyze the elements of successful stress management techniques.
2. Understand the elements of emotional and mental healthcare
3. Learn how to avoid and prevent violence.
4. Analyze aspects of self-discovery.
5. Develop skills to navigate standardized testing
6. Cultivate awareness of how to plan your schedule and work with others.

AS SUBSECTION A

Journey into Aerospace History:

1. Know the historical facts and impacts of the early attempts to fly.
2. Know the contributions of the Wright Brothers to modern aviation
3. Understand the significance of modern USAF aircraft systems.

An Introduction to Global Awareness

1. Develop basic understanding of the cultures of the Middle East
2. Develop basic understanding of the cultures of Asia
3. Develop basic understanding of the cultures of Africa
4. Develop basic understanding of the cultures of Russia and former Republics
5. Develop basic understanding of the cultures of South America
6. Develop basic understanding of the cultures of Europe

TECH STEM Elective 10: Basic Model Rocketry

1. Develop an understanding of rocket history

2. Analyze rocket construction and launch systems in operation
3. Comprehend satellite and space object orbits

Survival:

1. Know the elements of surviving.

AFJROTC SECTION A

Grades: 9-12 Full Year 5 credits

LE SUBSECTION A**Traditions, Wellness, and Foundations of Citizenship**

1. Know the importance of AFJROTC history, mission, purpose, goals, and objectives.
2. Know military traditions and the importance of maintaining a high standard of dress and appearance.

Communication, Awareness, and Leadership

1. Apply the key factors of effective communications.

Life Skills and Career Opportunities

1. Analyze the elements of successful financial management skills.
2. Create a plan to safeguard personal resources.

Drill/Wellness

1. Cadets learn to participate in and lead individual and flight drill routines.
2. Participate in physical fitness, skills development, and wellness academic activities.

AS SUBSECTION A**Journey into Aerospace History:**

1. Know the historical facts and impacts of the early attempts to fly.

The Science of Flight

1. Analyze the elements of flight.

Exploring Space: The Higher Frontier

1. Know the specific characteristics of the Earth, Moon, solar system, and the planets.
2. Comprehend the big picture of space exploration, including the history of spaceflight, organizations doing work in space, and the overall space environment.

Survival:

1. Know the elements of surviving.

AFJROTC SECTION B

Grades: 9-12 Full Year 5 Credits

Prerequisite: N/A

LE SUBSECTION B**Traditions, Wellness, and Foundations of Citizenship**

1. Know the importance of attitude, discipline, and respect, and why values and ethics are so important.
2. Know the importance of individual self-control, common courtesies and etiquette.

Communication, Awareness, and Leadership

1. Know the ways in which personal awareness affects individual actions.

Life Skills and Career Opportunities

1. Analyze the different ways of pursuing a career path.
2. Analyze the requirements for applying to a college or university.

Drill/Wellness

1. Cadets learn to participate in and lead individual and flight drill routines.
2. Participate in physical fitness, skills development, and wellness academic activities.

AS SUBSECTION B**Journey into Aerospace History:**

1. Know the major historical contributions to the development of flight.

Technical STEM Elective: Introduction to CyberSecurity

1. Summary of Recent Attacks and Motivation for CAP Action Activity Group One: Codes, Ciphers and Encryption Awareness
2. Unit Profile: Room 40 and Bletchley Park Biography: Alan Turing
3. Concepts in Information Assurance and Cyber Warfare
4. Activity Group Two: Vulnerabilities and Basic Defense Skills
Unit Profile: USCYBERCOM
5. Patriot Bio: Gen. Keith Alexander
6. A Tale of Two Operating Systems: DOS and Windows and *NIX Activity Group Three: Basic Probing Skills
7. Unit Profile: 24th Air Force & 67th Network Warfare Wing Patriot Bio: Col. Kevin B. Wooton
8. Exploring Careers in Cybersecurity
9. Activity Group Four: Preparation for Cyber Patriot
10. Unit Profile: 688th Information Operations Wing
11. Patriot Bio: Col. Robert J. Skinner
12. Conclusion and Next Steps (Checklist for Action)

Exploring Space: The Higher Frontier

1. Comprehend the importance of entering space, characteristics of manned and unmanned Space flight, and how humans are affected during spaceflight.
2. Comprehend the key concepts for getting from the surface of Earth into orbit and to other planets.

Survival:

1. Know how medical procedures, clothing, and shelter can provide personal protection for a survivor in a survival situation.

AFJROTC SECTION CHARLIE

Grades: 9-12 Full Year 5 Credits

Prerequisite: N/A

LE SUBSECTION C

Traditions, Wellness, and Foundations of Citizenship

1. Know that an effective stress management program improves the quality of life.
2. Know why courtesies are rendered to the United States flag and the National Anthem.

Communication, Awareness, and Leadership

1. Know the key elements of building and encouraging effective teams.

Life Skills and Career Opportunities

1. Analyze positive and negative impact of college life in meeting career goals.
2. Evaluate the essential process for successfully pursuing desired career or job.

LE Elective: The Complete Guide to College Financing & Admissions

The Complete Guide to College Financing & Admissions is a step-by-step approach to college financing and admissions. This revolutionary program provides critical information and hundreds of web links that connect students directly to everything they need to know to save thousands of dollars in college costs and get them into the college of their choice.

Drill/Wellness

1. Cadets learn to participate in and lead individual and flight drill routines.
2. Participate in physical fitness, skills development, and wellness academic activities.

AS SUBSECTION C

Journey into Aerospace History:

1. Know the contributions of the US Air Force to modern aviation.

Exploring Space: The Higher Frontier

1. Comprehend how spacecraft, rockets, and launch vehicles are designed and built.
2. Comprehend the latest advances in space technology.

Survival:

1. Know the necessities for maintaining life in a survival situation.

AFJROTC SECTION DELTA

Grades: 9- 12 Full Year 5 Credits

Prerequisites: N/A

LE SUBSECTION D**Traditions, Wellness, and Foundations of Citizenship**

1. Know why it is important to be a good democratic citizen and to be familiar with the different forms of governments.
2. Know the importance of keeping yourself well and helping others stay well

Communication, Awareness, and Leadership

1. Apply the key behaviors for becoming a credible and competent leader.

Life Skills and Career Opportunities

1. Evaluate the benefits of working for the Federal Government.
2. Create a plan for successful career development

Drill/Wellness

1. Cadets learn to participate in and lead individual and flight drill routines.
2. Participate in physical fitness, skills development, and wellness academic activities.

AS SUBSECTION D**Journey into Aerospace History:**

1. Know the key events of space exploration history.

The Science of Flight

1. Analyze flight navigation and the purpose of aerial navigation aids.

An Introduction to Global Awareness

1. Know how historical, geographic, religious, and ethnic factors have shaped the six major regions of the world.
2. Know how economic, political, and social factors impact cultures.
3. Know how environmental resources influence global economic development.
4. Know how population density, famine, war, and immigration influence the world.
5. Know how the economic systems of communism and capitalism have shaped the six major regions of the world.
6. Comprehend how cultural perspectives of time, space, context, authority, interpersonal relationships, and orientation to community affect interactions among people.

Survival:

1. Know how to travel and prepare for recovery in a survival situation.

LEADERSHIP EDUCATION ELECTIVES OBJECTIVES AND GOALS:**AFJROTC MANAGEMENT**

Grade: 12 Full Year 5 Credits

*Prerequisites: Three years of AFJROTC experience and assigned to Corps Leadership position
Leadership Education 400 Fundamentals of Management*

AFJROTC Management provides an essential component of leadership education for today's high school students. This course is designed for the fourth year JROTC cadet. Its aim is to provide students an introduction to basic management concepts and skills, especially as they relate to managing in a JROTC unit. The Leadership Education subsection is derived from LE400 Principles of Management textbook

with the Aerospace Science subsection made up of assigned leadership duties within the Cadet Corps.

1. Analyze management and its application to JROTC.
2. Analyze the elements of project management.
3. Evaluate the importance of formal planning within an organization.
4. Analyze decision-making within an organization.
5. Evaluate time management and change management within an organization.
6. Analyze concerns managers must consider in managing individuals and groups.
7. Analyze the factors that make work teams productive.
8. Evaluate the interpersonal skills of delegating, negotiating, and mentoring.
9. Complete assigned tasks effectively and efficiently using tools, techniques and procedures acquired in the previous three years' experience in AFJROTC.

Drill/Wellness

1. Participate in physical fitness, skills development, and wellness academic activities.

AFJROTC PERSONAL FINANCE FOR CADETS (LE SUBSECTION)

Grades: 10-12 Half Year Paired with Science of Flight or AFJROTC AS SUBSECTION as part of a 5 credit course

Prerequisite: Introduction to AFJROTC

This course is intended to provide the building blocks of long-term financial readiness through straightforward, relatable and easy to understand content written at the student's level but also as though the audience is an adult trying to learn these topics. The result is mature, real-world messaging and education delivered in a manner easily consumed by a high school student. Material is aligned with NJ standards and delivered in cooperation with the Business and Practical Arts Department. Students comply with graduation requirements of Personal Finance.

The purpose of the program is:

1. To teach about the financial planning process
2. To offer the opportunity to apply the process through assignments
3. To encourage students to take control of their finances.

Drill/Wellness

1. Cadets learn to participate in and lead individual and flight drill routines.
2. Participate in physical fitness, skills development, and wellness academic activities.

II. AVIATION TECHNICAL EDUCATION PATHWAY OBJECTIVES AND GOALS:

AFJROTC SCIENCE OF FLIGHT (AS SUBSECTION)

Grades: 10-12 Half Year Paired with Personal Finance for Cadets or AFJROTC LE SUBSECTION as part of a 5 credit course

Prerequisites: Introduction to AFJROTC

The Science of Flight: A Gateway to New Horizons is an introductory course and customized textbook that focuses on how airplanes fly, how weather conditions affect flight, and the human body, and flight navigation. The course is designed to complement materials taught in math, physics, and other science-related courses and is aligned with the National Science Education Standards, the Math Standards and Expectations, and ISTE National Educational Technology Standards for Students.

The course outcomes are:

1. Analyze the elements of flight.
2. Evaluate how atmospheric conditions affect flight.
3. Evaluate how flight affects the human body.
4. Analyze flight navigation and the purpose of aerial navigation aids.

AFJROTC AVIATION HONORS GROUND SCHOOL*Grades: 11-12 Full Year 5 Credits****Prerequisites: Two years of JROTC with "C" or greater average (including Science of Flight), SASI Recommendation***

This course is the foundation for students interested in receiving a private pilot's license. The material covered is an advanced, more in-depth study of aerospace topics. The intent of the program is to provide AFJROTC an academically challenging course for top achievers in the AFJROTC program. Entry into ground school should be earned by high achievement in other AFJROTC courses and involvement in the cadet corps. The course receives "honors" credit. The student must have written approval from the SASI/ASI prior to registering and must be a junior or senior honor student who has demonstrated potential and aptitude; in addition, the student must have successfully completed a minimum of 2 years of AFJROTC coursework (to include AS 200: *The Science of Flight: A Gateway to New Horizons*) and maintained a grade of C or better. The *Private Pilot Manual* is the primary source for initial study and review. The text contains complete and concise explanations of the fundamental concepts and ideas that every private pilot needs to know. The subjects are organized in a logical manner to build upon previously introduced topics.

The course objectives are:

1. Comprehend the fundamentals of flight.
2. Comprehend flight operations.
3. Comprehend the atmosphere and its effect on aircraft operations.
4. Comprehend the basics of navigation using charts and radio aids.
5. Apply the principles of aeronautical decision-making and flight-related physiological factors.

III. SUMMER LEADERSHIP COURSE:**AFJROTC AEROSPACE SCIENCE 5 – CADET LEADERSHIP COURSE***Grades: 9-11 7 to 14 days (NO SCHOOL CREDITS AWARDED)****Prerequisites: Complete one year of AFJROTC instruction with a passing grade***

Open only to students enrolled in Aerospace Science for the next academic year. Intensive leadership training program conducted off campus at a local military installation for a period of two weeks. Extensive leadership academic training will prepare the student to assume an increased role in the leadership of the cadet group upon return to school. Summer encampment includes obstacle, confidence, and leadership reaction training courses designed to focus the student on his/her abilities and limitations. **Cost is borne by individual cadet/family.**

PISCATAWAY HIGH SCHOOL

FOUR-YEAR PLANNING WORKSHEET

Courses are to be selected on the basis of a seven period school day.

Students must register for a minimum of 35 credits.

<i>GRADE 9</i>	<i>CR</i>	<i>GRADE 10</i>	<i>CR</i>
Physical Education 1/Health	4/5	Physical Education 2/Health	4/5
English 1	5	English 2	5
World Cultures	5	U.S. History 1	5
Math	5	Math	5
Science	5/6	Science	5/6
Visual/Performing or 21 st Century Life & Careers*	5	Visual/Performing or 21 st Century Life & Careers*	5
World Language*	5	World Language*	5
Freshmen Seminar	5	Lunch	0
Lunch	0		
<i>GRADE 11</i>	<i>CR</i>	<i>GRADE 12</i>	<i>CR</i>
Physical Education 3/Drivers Ed	4/5	Physical Education 4/Health	5
English 3	5	English 4	5
U.S. History 2	5	Lunch	0
Math	5		
Science	5/6		
Lunch	0		

Student Signature

Parent/Guardian Signature

Date

*See Graduation Requirement Chart

PISCATAWAY HIGH SCHOOL

Interim Administrator

Deidre Ortiz

Assistant Principals

Jonathan Bizzell

Dr. Maria Cetta

Joi R. Fisher-Griffin

Dr. Matthew T. Ritchie

Department Chair/Supervisor

Robert Harmer

Athletic Director and Supervisor of Physical Education

Jaelyn Puleio

District Supervisor of Mathematics

Cathline Tanis

English Department

Jessica Pritchard

Science Department

James Knox

Social Studies Department

Theresa Edmondson

College, Career, & Personal Guidance Department

Glennysha Jurado-Moran

World Languages/ESL Departments

Robyn Kay

Practical Arts Department

Rebekah Sterlacci

District Supervisor of Visual and Performing Arts

Melissa Voigt

District Supervisor of Secondary Special Education

Christopher Irovando

Media Technology

Counselors

Shirley Aviles, Richard Brown, Kelly Chilakos, Mark Kiang, Jill Fraticelli, Nicole Martelli, Patricia Nazaire, Shar-Mekka Pernel, M. Stephanie Rogers, Rodney West, Brian Wischusen