



PISCATAWAY TOWNSHIP SCHOOLS

PISCATAWAY HIGH SCHOOL

COURSE BOOKLET

2016-2017

Table of Contents

Planning Your Future	3
The Process of Course Selection	3
Recommended Course Load	3
Schedule Changes	4
Major Areas of Study	4
Special Education	5
Student Option	5-6
Advanced Placement Courses	7
Post High School Options	7
Career Preparation Guide	8
Graduation Requirements	9
Promotion Requirements	9
English Language Arts	10-15
Social Studies	16-20
Mathematics	21-27
Science	28-33
World Languages	34-35
Comprehensive Health and Physical Education	36
Visual, Performing and Practical Arts/Career Arts	37
Visual Arts	38-40
Performing Arts	41-44
Career Development and Exploration	45
21 st Century Life & Careers	45
Applied Technology-Industrial Arts	45-53
Business	54-57
Family and Consumer Science	58
Air Force Junior ROTC	59-60
Additional Information	61
Planning Sheet	62
High School Administration	63

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 2015-2016 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.

પીસ્કેટવે હાઈસ્કૂલ ની વિદ્યાર્થીઓ
ની આભારી બાઈના વિષયોના પાઠ્ય ની (ટીચર
ની) આ નાની સોયડી છે. લખાણ આ સોયડી
ની વિષયોને સમજવાની સમયા લખાણ બાબતો
ને સમજવાની કોઈ પણ નાની મદદની જરૂર
હોય તો લખે લખાણ બાબતો કોઈએસાલ નો
સંપર્ક સાદો.

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.

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

MAJOR AREAS OF STUDY

Our comprehensive curriculum offers the following areas of study:

English Language Arts
 Social Studies
 Mathematics
 Science
 World Languages
 Comprehensive Health, Physical Education, and Driver Education
 Visual, Performing and Fine Arts
 21st Century Life & Careers

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.

CONCURRENT 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:*** 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 a passing score on the PARCC and 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 a passing score on the PARCC and a satisfactory attendance, academic, and disciplinary record.
- Student must adhere to college policies and procedures.

ADVANCED PLACEMENT COURSES

In 1952 a pilot program was conducted in the United States which allowed high school seniors to study college level material and to take achievement exams to attain college credit for this work. Since 1955 The College Board organization has run the AP program. In 2014, over two million students took over four million Advanced Placement examinations.

Our Board of Education adopted rigorous strategic goals in 2007. One strategic objective that supports a rigorous district wide curriculum is to increase the percentage of students who take advanced placement classes. To meet this goal, parents and students receive AP Potential letters from grade 9-11, based on performance on the PSATs administered to all students at our high school in October. This assessment identifies student areas of strengths that would lead to planning for (grades 8-10) and enrolling in (grades 9-12) AP courses offered at our high school.

Piscataway High School offers seventeen (17) 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 20 honors courses in English, Science, Social Studies, Mathematics, World Languages, and Business.

POST HIGH SCHOOL OPTIONS

Listed below are options you may want to consider after high school. Plan your courses around your specific goals and interests, so they are meaningful to you.

The World of Work
Specialized Schools
Military Service
Two-year Colleges
Four-year Colleges

The following Career Preparation Guide may be helpful:

CAREER PREPARATION GUIDE

2014-2015

<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 credits per year.

GRADUATION CREDIT REQUIREMENTS	
Subject	Beginning with Class of 2014
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.

Beginning with the Class of 2015 students must pass the PARCC assessment (Partnership Assessing Readiness for College and Careers) offered in the Spring. Students must adhere to the attendance policy as described in the Student Handbook.

Students must participate in the career development and awareness program.

<i>PROMOTION REQUIREMENTS</i>	
Grade Level	Minimum Number of Credits Earned for Promotion
Grade 10	30 Credits
Grade 11	60 Credits
Grade 12	90 Credits
Graduation	125 Credits

The following charts and course descriptions are offered to aid you in your course selection.

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 Academic	X				5.0
English 2 – Honors		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
English 3 – CCS			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
Independent Inquiry into the Humanities				X	5.0
Literacy Connections	X				5.0
Sophomore Literacy Connections		X			5.0
Creative Writing		X	X	X	5.0
Film Studies		X	X	X	5.0
Advanced Film Studies			X	X	5.0
Journalism	X	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	X	5.0
Publishing and Marketing a Yearbook		X	X	X	2.5
Exploring Graphic Novels		X	X	X	5.0
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. All levels place an emphasis on skills needed to pass the PARCC assessments.

ENGLISH 1 (Honors)

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

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 ReadStep 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.

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.

FRESHMAN LITERACY CONNECTIONS

Full Year Grade 9 5 credits

This course integrates the study of reading and writing for those students who need more intense and basic skill work in these areas. Students will take this course in addition to their ninth grade academic English course.

COURSES OFFERED TO SOPHOMORES

ENGLISH 2 (Honors)

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.

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.

SOPHOMORE LITERACY CONNECTIONS

Full Year Grade 10 5 credits

This course integrates the study of reading and writing for those students who need more intense and basic skill work in these areas. Students will take this course in addition to their tenth grade academic English course.

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 honors 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 (Academic)

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

This course fulfills the needs of students who did not meet the minimum level of proficiency on standardized tests in the 10th grade. Small classes allow for individual focus on students' weaknesses. The writing skills necessary to pass the PARCC assessments, study skills, reading comprehension, and vocabulary growth are stressed.

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 honors 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 (Academic)

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. A required senior research project will showcase student learning.

ENGLISH Common Core Lab

Full Year Grade 12 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.

MYTHOLOGY & COMPOSITION

Full Year Grade 12 5 credits

In Mythology and Composition, students will study the mythology of various cultures and connect their own cultures and experiences with these mythologies. 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, senior course for which students get one year of English credit.

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 over the course of the year, students will also read film commentary and criticism in preparation for the films and for analysis. Students will continue to 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.

EXPLORING GRAPHIC NOVELS

Full Year Grades 10-12 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

Full Year Grades 9-12 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- 11 2.5 credits

Prerequisite: Students must have a combined score between 80-100 on the 9th or 10th grade administration of PSAT test.

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			
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
Advanced Placement European History		X	X	X	5.0
Advanced Placement World History	X				5.0
Psychology			X	X	5.0
Advanced Placement: Psychology			X	X	5.0
Sociology+		X	X	X	2.5
Philosophy		X	X	X	5.0

**credit recovery via approved online programs*

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

+ possible companion class for Personal Financial Literacy

5.0 Credits -Full Year

HONORS WORLD CULTURES

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.

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 5 credits

Prerequisite: Ancient 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.

ADVANCED PLACEMENT EUROPEAN HISTORY

Full year Grade 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.

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 Grades 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.

ADVANCED PLACEMENT US 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.

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.

THE HISTORY OF PSYCHOLOGY*Full Year Grades 11-12 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 11-12 5 credits***Prerequisite:** *The History of Psychology*

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: Admission is limited to those students who have taken the History of Psychology in their junior year with a written recommendation by the student's psychology teacher and by approval of the Department Chair. Designated criteria including a writing sample is required before placement is finalized.

PHILOSOPHY

Full Year Grades 11-12 5 credits

Philosophy is a full year elective designed to emphasize critical thinking, ethical questions, and the role of ideas in shaping our society. Thinkers from Socrates to the current writers and thinkers are studied in order to explore different topics and to examine differing and divergent points of view.

Students will check surveys, columns, self-tests, articles and books. They will debate, argue, examine and construct points of view. Above all they should be active, aware, and concerned about the ideas that shape and are shaping and will shape our lives.

SOCIOLOGY

Full Year Grades 11-12 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.

ESL SOCIAL STUDIES COURSES

The following course is offered for students who are limited in communicating in the English language because they have recently emigrated from a non-English speaking country. Enrollment is determined by the World Language Supervisor.

WORLD CULTURES - ESL

Full year Grades 9-12 5 credits

This course will study people, their culture and surroundings. This, however, is a special course and emphasis will be placed upon basic reading, vocabulary building, and writing. All work and classroom discussions will be geared to level of English proficiency.

UNITED STATES HISTORY 1 – ESL

Full year Grades 10-12 5 credits

This course will engage students in the study of United States History from early colonial times through the turn of the twentieth century. However, this course will have a special emphasis on reading, vocabulary building, and writing. All work and classroom discussions will be geared to students' level of English proficiency.

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 9	X				5.0
Geometry		X			5.0
Essentials of Geometry		X			5.0
Honors Geometry		X			5.0
Honors Algebra 2		X			5.0
Algebra 2		X	X		5.0
Essentials of Algebra 2		X	X		5.0
Trigonometry and Analytic Geometry (Honors)			X	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
Topics in College Mathematics				X	5.0
Honors Calculus			X	X	5.0
Advanced Placement Calculus AB			X	X	5.0
Advanced Placement Calculus BC			X	X	
Advanced Placement Statistics		X	X	X	10.0

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
Geometry Lab		X			5.0
Algebra 2 Lab			X		5.0
Common Core Math 12A				X	2.5
Common Core Math 12B				X	2.5
SAT: Critical Reasoning and Problem Solving		X	X		2.5
Introduction to Computer Science	X	X	X	X	5.0
App Development	X	X	X	X	5.0
Advanced Placement Computer Science		X	X	X	5.0

2.5 Credits - Semester Course

5.0 Credits -Full Year

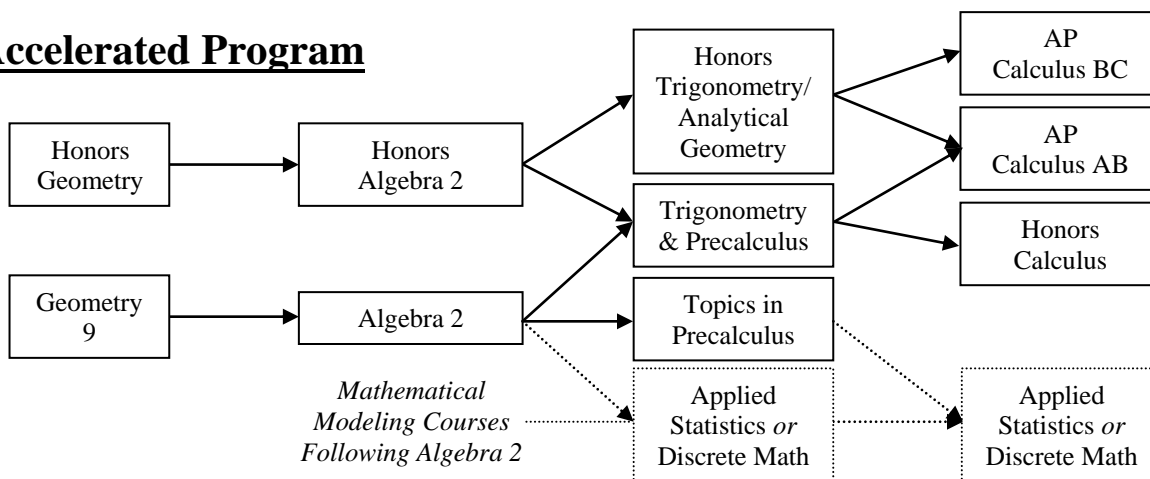
Piscataway High School Common Mathematics Course Sequences

The sequences below do not represent all possible course options available at each level.

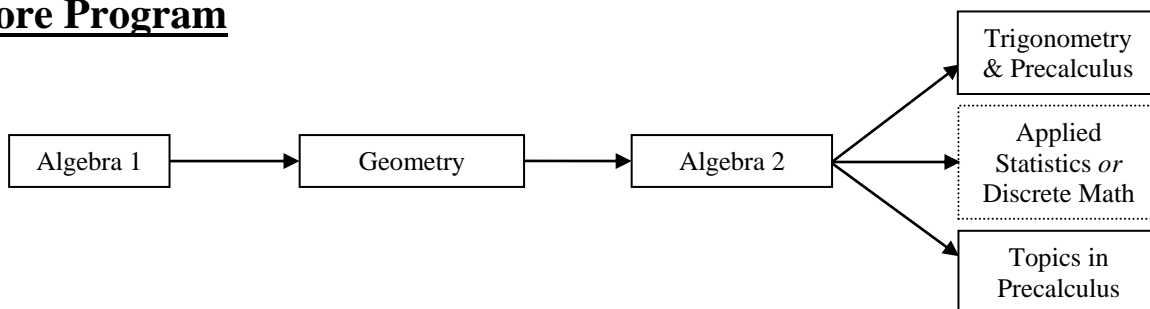
Please refer to the Course Offerings Booklet for complete advisement information.

**Students are encouraged to move to more challenging sequences when appropriate.*

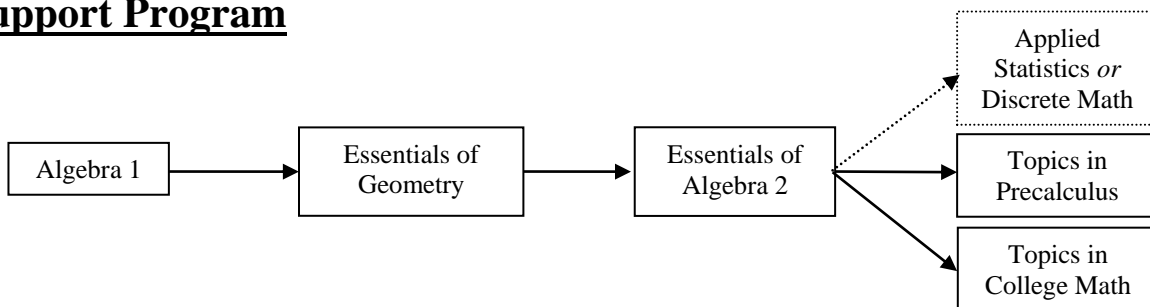
Accelerated Program



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 a grade of A or B) or following any course after Algebra 2 *except* Topics in Precalculus.

Computer Science

- Introduction to Computer Science: Open to all interested PHS Students
- App Development: Open to all interested PHS Students
- AP Computer Science: Can be taken after Algebra 2 or after completion of Introduction to Computer Science and permission of the instructor

Discrete Mathematics

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

ALGEBRA 1 LAB

Full year Grade 9 5.0 Credits

GEOMETRY LAB

Full year Grade 10 5.0 Credits

ALGEBRA 2 LAB

Full year Grade 11 5.0 Credits

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, Geometry, and Algebra 2 students is on understanding and applying the Common Core State 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 Grades 9-12 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 NJASK8 test scores and performance in 8th grade mathematics.

Students selecting Algebra 1 **must** check the district web site in June to obtain a summer preview project, which is due on the first day of school in September.

HONORS GEOMETRY

Full year Grades 9-10 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 class rank purposes.

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

GEOMETRY 9

Full year Grade 9 5.0 Credits

Prerequisite: Strong performance in Algebra 1 in the eighth grade and teacher recommendation

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

Geometry 9 is specifically designed for ninth graders who successfully completed Algebra 1 in Grade 8. It is not weighted as an honors course. In addition to the proficiencies listed for the regular Geometry course, the Geometry 9 curriculum includes an extensive review of Algebra 1 topics.

Students selecting Geometry 9 **must** check the district web site in June to obtain a summer preview project, which is due on the first day of school in September.

GEOMETRY

Full year Grades 10-12 5.0 Credits

Prerequisite: Algebra 1 or Essentials of Algebra 1

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

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

ESSENTIALS OF GEOMETRY

Full year Grades 10-12 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. Students in this class may also be assigned to a Geometry Lab class based on past performance in Algebra 1.

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

HONORS ALGEBRA 2

Full year Grades 10-12 5.0 Credits

Prerequisite: Placement from Honors Geometry or Geometry 9 with 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 class rank purposes.

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

ALGEBRA 2

Full Year Grades 10-12 5.0 Credits

Prerequisite: A Geometry course

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. Seniors who previously had difficulty in mathematics should consider enrolling in Essentials of Algebra 2.

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

ESSENTIALS OF ALGEBRA 2

Full Year Grades 10-12 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, 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.

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

NOTE: Essentials of Algebra 2 is **NOT** recommended for students preparing for rigorous college math courses.

TRIGONOMETRY AND ANALYTIC GEOMETRY (Honors)

Full Year Grades 10-12 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 accurate GPA calculation.

TRIGONOMETRY AND PRECALCULUS (Honors)

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 at Middlesex County College may be earned simultaneously with 5 credits earned at Piscataway High School. These credits are 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, the anti-derivative, solutions of multivariable linear systems, and conic sections. Vectors, polar coordinate systems, matrices and determinants will be covered 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.

Because this is an honors course, the grades are weighted for class rank purposes. PHS does not promote class rank- please re-examine including sentence.

NOTE: This course does not satisfy the prerequisite requirement for AP Calculus BC

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.

TOPICS IN COLLEGE MATH

Full Year Grade 12 5.0 credits

Prerequisite: An Algebra 2 course

This course is designed as a focused, full-year college preparatory course for students who have been challenged by high school mathematics. The material covered will prepare students for standardized testing including the SAT and ACT, and will also focus on topics in elementary algebra covered on the Accuplacer exam and college placement tests. In addition to rigorous presentation of topics comprising all of basic high school mathematics, the course will focus on writing in mathematics, problem solving, and modeling.

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 is a study of discrete mathematics that will allow students to gain an appreciation of the subtlety and variety 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 general education mathematics 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 10-12 5.0 Credits

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

This elective course introduces statistics topics through problem-based modules within a variety of content areas. Students will explore models of quantitative analysis in the natural sciences, the social sciences, business, and other contexts, and will learn how and when statistical frameworks can be applied to data to draw conclusions and make predictions. This course was developed through a partnership with DIMACS at Rutgers University, and students will have the opportunity to work with guest lecturers and other experts in exploring these topics.

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.

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. It continues the work begun in previous honors courses, with primary emphasis on differential and integral calculus. This course is designed to be an introduction to calculus material for students who will be taking a calculus course in college, and it is not as intensive as either Advanced Placement Calculus course. Hence, while students who enroll in this course may elect to take an Advanced Placement exam, not all the required material will be covered by the time of the exam. A TI-83 graphing calculator is used throughout the course.

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

ADVANCED PLACEMENT CALCULUS AB

Full Year Grades 11-12 5.0 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. (Students are encouraged, but are not required, to take the exam.) Students must have successfully completed all the prerequisite courses with a grade of B or better.

Both 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 math department in June to obtain a preview packet which is due in September.

Because this is an advanced placement course, the grades are weighted for accurate GPA calculation.

ADVANCED PLACEMENT CALCULUS BC

Full Year Grades 11-12 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. (Students are encouraged, but are not required, to take the exam.) Students must have successfully completed all the prerequisite courses with a grade of B or better.

Both 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 BC **must** check with the math department in June to obtain a preview packet which is due in September.

Because this is an advanced placement course, the grades are weighted for accurate GPA calculation.

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 accurate GPA calculation.

SAT: CRITICAL REASONING AND PROBLEM SOLVING

Full Year Grades 10-11 2.5 credits

Prerequisite: Students must have a combined score between 80 and 100 on the ninth or tenth 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 in order to help improve scores on the Critical Reading and Mathematics sections of 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 of computer science. Along with providing students with programming experience, this course also familiarizes students to logical thinking and problem solving skills. Upon completion of this course, students will (1) be able to create animations, using logical structures in Alice 3.0 (integrates Sims characters); (2) be able to write basic programs using logical structures in Java; (3) be able to use Eclipse IDE and run Java programs. This course serves as a foundation and prerequisite for the Advanced Placement Computer Science course and is highly recommended for students who plan to select Engineering, Computer Science, Finance, or Genetics as their major in college.

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

APP DEVELOPMENT

Full Year Grades 9-12 5.0 Credits

Prerequisite: Introduction to Computer Science, Advanced Placement Computer Science, or by permission of the instructor

This elective course introduces students to various applications within computer programming from a hands-on modeling perspective. It explores the development of Java applets and full-featured apps for the Android operating system. Students will gain experience in back-end and front-end processing as well as in using both graphical user interface (GUI) and text commands.

App Development may be taken at any time in the computer science sequence of course offerings and does not prepare students to take the AP Exam in Computer Science. Students who take App Development are encouraged to continue their study of computer science by taking Advanced Placement Computer Science.

ADVANCED PLACEMENT COMPUTER SCIENCE

Full Year Grades 11-12 5.0 Credits

Prerequisite: Algebra 2, Intro. to Computers & Programming, 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 class rank purposes.

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

Science

Science Department Course Offerings

<i>SUBJECT</i>	GRADE				<i>CREDITS</i>
	9	10	11	12	
Biology (Academic)	X	X	X	X	6.0
Honors Biology	X	X			6.0
Conceptual Chemistry		X	X		6.0
Chemistry (Academic)		X	X		6.0
Honors Chemistry		X	X		6.0
Conceptual Physics			X	X	6.0
Physics (Academic)			X	X	6.0
Honors Physics			X	X	6.0
Advanced Placement Biology			X	X	7.0
Advanced Placement Chemistry			X	X	7.0
Advanced Placement Chemistry			X	X	10.0
Advanced Placement Environmental Science			X	X	6.0
Advanced Placement Physics			X	X	6.0
Anatomy & Physiology I for Health Science Careers			X		5.0
Anatomy & Physiology II for Health Science Careers				X	5.0
Dynamics for Health Care in Society			X		3.0
Astronomy			X	X	3.0
Astronomy			X	X	5.0
Human Anatomy and Physiology			X	X	5.0
Environmental Science		X	X	X	2.5
Forensics		X	X	X	2.5
Research in Molecular Biology and Bioinformatics			X	X	3.0

2.5 Credits - Semester Course

3.0 Credits – Full Year, Three Days per Cycle

5.0 Credits - Full Year

6.0 Credits – Full Year, 1 Lab Period per Cycle

7.0 Credits – Full Year, 2 Lab Periods per Cycle

10.0 Credits- Full Year, 5 Lab Periods per Cycle

Biology

Academic Biology (6 credits)
Honors Biology (6 credits)

AP Biology (7 credits)
AP Environmental Sciences
(6 credits)

Chemistry

Conceptual Chemistry (6 credits)
Academic Chemistry (6 credits)
Honors Chemistry (6 credits)

AP Chemistry (7 or 10 credits)

Physics

Conceptual Physics (6 credits)
Physics (6 credits)
Honors Physics (6 credits)

AP Physics (6 credits)

Electives

Anatomy & Physiology (5 credits)
Astronomy (3 or 5 credits)
Environmental Science (2.5 credits)
Forensics (2.5 credits)
NEW COURSE: *Research in Molecular
Biology & Bioinformatics (3 credits)*

Biomedical Career Pathways Program (2 year program)

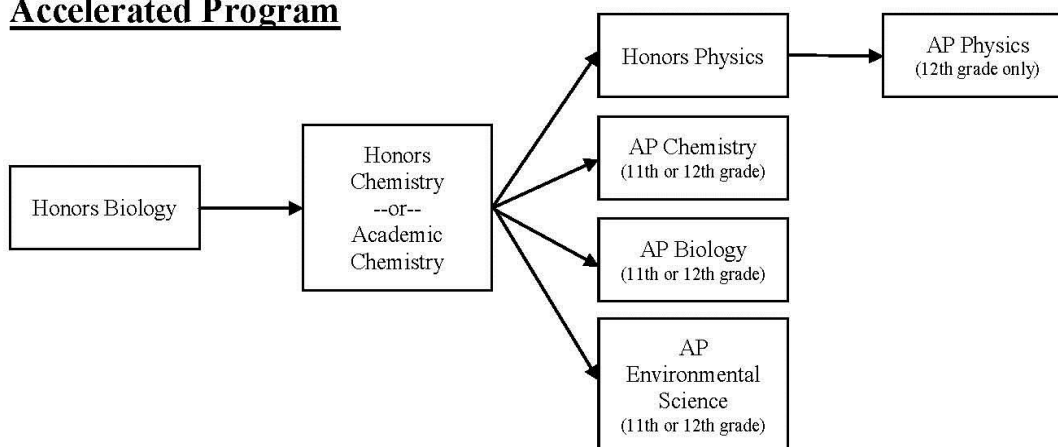
Anatomy & Physiology I for Health Science Careers
(5 HS credits, 4 Rutgers Credits)
Anatomy & Physiology II for Health Science Careers
(5 HS credits, 4 Anatomy + 3 Medical terminology Rutgers Credits)
Dynamics for Health Care in Society
(3 HS credits, 3 Rutgers Credits)
***Students will take Rutgers assessments and upon
graduation, earn Rutgers college credits***

Piscataway High School
Common Science Course Sequences

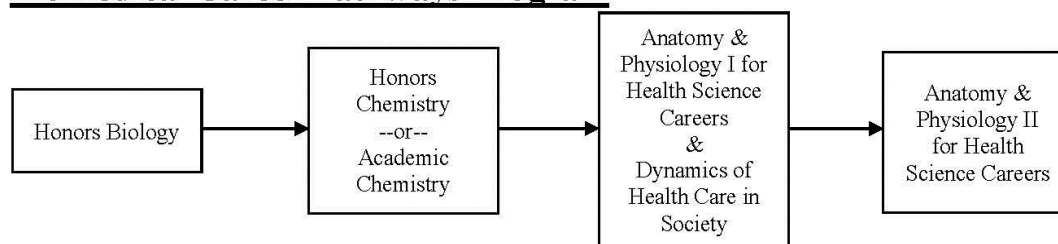
*The sequences below do not represent all possible course options available at each level.
 Please refer to the Course Offerings Booklet for prerequisites and complete advisement information.*

**Students are encouraged to move to more challenging sequences when appropriate.*

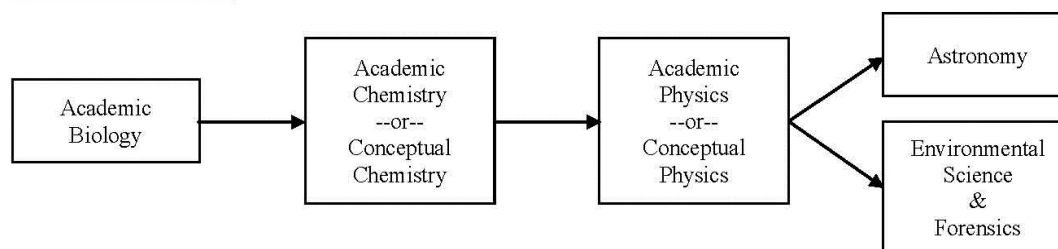
Accelerated Program



BioMedical Career Pathways Program



Core Program



Elective Courses in Science

- | | |
|--|---|
| <ul style="list-style-type: none"> • Anatomy & Physiology • Environmental Science • Forensics • Research in Molecular Biology and Bioinformatics | <ul style="list-style-type: none"> • Astronomy • AP Biology • AP Chemistry • AP Environmental Science • AP Physics |
|--|---|

Science

The Science Department at Piscataway High School is dedicated to providing learning opportunities that are designed to allow students to develop scientific literacy and problem solving skills through the process of inquiry. Emphasis is placed on the *process of science* so that students can discover, interpret and apply scientific knowledge. Hands-on experiences in the laboratory investigations provide opportunities to make observations, formulate and test hypothesis and develop scientific reasoning and inquiry skills as a way of understanding the natural world and solve problems. Students use technology and work cooperatively; develop attitudes and interests towards the goal of becoming lifelong learners in a global environment.

BIOLOGY (Academic)

Full Year Grades 9-12 6 credits

This Biology lab and lecture course consists of a basic introductory program that will lead to a greater understanding of the biological sciences. Students engage in laboratory exercises that encourage problem solving and decision making skills. Students will study five main themes to make sense of the complexity, diversity and interconnectedness of life on earth. These themes are: organization and development, matter and energy transformation, interdependence, heredity and reproduction and evolution and diversity. Students will take a state mandated test in May.

HONORS BIOLOGY

Full Year Grades 9 & 10 6 credits

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

The Honors Biology lab and lecture course is an intensified and accelerated program designed for those students who plan to take the maximum number of units of science in high school. All topics listed for Academic Biology will be studied at a greater depth with their emphasis on real life applications and regulation and coordination of life systems. Students will take a state mandated test in May.

ADVANCED PLACEMENT BIOLOGY

Full Year Grade 11-12 7 Credits

Prerequisite: Successful completion of Biology and Chemistry. Recommendation of previous science teacher 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.

CONCEPTUAL CHEMISTRY

Full Year Grades 10-12 6 credits

Prerequisite: Successful completion of Biology and Algebra I. Recommendation of previous science teacher needed.

This Chemistry course consists of a basic introductory program, intended for non-science and general education majors that will lead to a greater understanding of chemistry. Included in this program is the consideration of measurements in chemistry, problem solving, matter and its changes, formula writing, atomic structure, the Periodic Law, chemical bonds, stoichiometric relations, gas laws, solutions and ionization theory.

CHEMISTRY (Academic)

Full Year Grades 10-12 6 credits

Prerequisite: Successful Completion of Algebra 1 and Academic or Honors Biology. Recommendation of previous science teacher is needed and average to excellent grades in previous science and math courses.

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. Emphasis is placed on problem solving, inquiry lab work and laboratory reports.

HONORS CHEMISTRY

Full year Grade 10-12 6 credits

Prerequisite: Successful completion of Algebra 1 (with excellent grades; Geometry or Algebra 2 completed or taken concurrently). Recommendation of previous science teacher needed.

The Honors Chemistry course is intended for science oriented students who plan on taking the maximum number of units of science in high school. The topics range from the purely theoretical to real world applications. Topics are dealt at a greater depth than that of academic chemistry. The course is rapidly paced and problem solving is stressed throughout. Laboratory work is closely aligned with the lecture material.

ADVANCED PLACEMENT CHEMISTRY

Full Year Grade 11-12 7 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 which are coupled with lecture concepts will be performed. In May, students will take the Chemistry Advanced Placement Exam administered by the College Boards.

CONCEPTUAL PHYSICS

Full year Grades 11-12 6 credits

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

This Physics lab and lecture course consists of basic introductory program that will lead to greater understanding of how mathematical models are used to describe the physical universe. This course is designed for the following students: those who have taken Algebra 1 and have earned at least a C; students who might not go to college or have not made a decision about college yet; and students who are going to college but have experienced some difficulties in math. It is important to note that needed math concepts will be reviewed and explained. The following areas will be addressed: concepts of motion and classical mechanics, energy forms, wave mechanics, optics, light and electricity.

PHYSICS (Academic)

Full year Grades 11-12 6 credits

Prerequisite: Academic Biology; completion of, or currently enrolled in Algebra 2. Excellent grades in Geometry and Algebra 1 and recommendation of science teacher is needed.

Recommended for students who plan to major in science or engineering in college. This is a lab and lecture course that meets six periods per week. This foundational physics course will give students an understanding of the physical laws governing force and motion, heat, waves, electricity, and optics.

HONORS PHYSICS

Full year Grades 11-12 6 credits

Prerequisite: Successful completion of Biology and Chemistry. Recommendation of previous science teacher is needed; completion of, or currently enrolled in Trigonometry or Precalculus.

The honors physics course is intended for science oriented students who plan on taking the maximum number of science units in high school. This rigorous inquiry oriented high school physics lab course is quite demanding and rapidly paced. 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 PHYSICS

Full Year Grade 11-12 6 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 to strengthen the background obtained by students who took 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 exam.

SCIENCE ELECTIVES

ANATOMY AND PHYSIOLOGY I FOR HEALTH SCIENCE CAREERS

Full Year Grade 11 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 midterm and final exams. Approval from the Science Department Chair must be obtained for special circumstances.*

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 74 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 65 before calculations of Rutgers transcript grade can be determined.

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

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 74 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 65 before calculations of Rutgers transcript grade can be determined.

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

ASTRONOMY

Full year Grades 11-12 3 or 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; the various planets; stars; stellar evolution; galaxies; comets; cosmology; quasars; space travel; and the search for extraterrestrial life. The planetarium facility will be used when needed.

DYNAMICS OF HEALTH CARE IN SOCIETY

Full year Grades 11 3 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 midterm and final exams. Approval from the Science Department Chair must be obtained for special circumstances.*

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 74 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 74 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.

ENVIRONMENTAL SCIENCE

Semester Grade 11-12 2.5 Credits

Prerequisite: *Successful completion Biology*

The goal of this course is to provide students with the social and humanistic aspects of science. The major content areas to be studied include: the ecology of natural systems; human adaptation to environmental change; the extinction of species; the growth of human populations; energy-resources; pollution; agricultural systems; control of pests and weeds; solid waste; and the social, legal, and economic aspects of environmental degradation.

ADVANCED PLACEMENT ENVIRONMENTAL SCIENCE

Full Year Grade 11-12 6 Credits

Prerequisite: *Successful completion of one year of Biology and Chemistry. Recommendation of science teacher is needed.*

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.

HUMAN ANATOMY AND PHYSIOLOGY

Full Year Grade 11-12 5 Credits

Prerequisite: *Successful completion of Biology with at least a 70% average*

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.

FORENSICS

Semester Grade 10-12 2.5 Credits

Prerequisite: *Successful completion of Biology*

This semester elective will expose students to the processing of evidence and crime solving. Among the topics included are: crime scene safety and management; fingerprinting; fiber and hair analysis; DNA fingerprinting; ballistics; serology; explosives; arson; forensic pathology; and the collection of physical and trace evidence. By stepping into the role of the forensic scientist, the students will learn and apply numerous scientific strategies and skills. Students will have a hands-on opportunity to study this exciting field, thus exposing them to possible careers in criminal justice.

RESEARCH IN MOLECULAR BIOLOGY AND BIOINFORMATICS

Full Year Grade 11-12 3 Credits

Prerequisite: *Successful completion of one year 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.

World Languages

World Language Department Course Offerings

<i>SUBJECT</i>	GRADE				<i>CREDITS</i>
	9	10	11	12	
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 3	X	X	X	X	5.0
Spanish 4		X	X	X	5.0
Spanish 5 – Honors			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

ESL Department

<i>SUBJECT</i>	GRADE				<i>CREDITS</i>
	9	10	11	12	
ESL Reading	X	X	X	X	5.0
ESL Writing	X	X	X	X	5.0
ESL Reading/Writing 12				X	5.0
ESL World Cultures	X	X	X	X	5.0
ESL United States History 1		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 eighth grade teachers. Courses are taught sequentially. All courses are five credits and are offered for a full year.

LEVEL 1: French, Italian, Spanish, Mandarin Chinese

This course is designed for students with little 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.

LEVEL 2: French, Italian, Spanish, Mandarin Chinese

This intermediate course further develops communicative language skills in listening, speaking, reading, and writing while exploring culture.

LEVEL 3: French, Italian, Spanish, Mandarin Chinese

This advanced course, conducted almost entirely in the target language, continues the development of listening, speaking, reading, and writing through a variety of communicative activities.

LEVEL 4: French, Italian, Spanish, Mandarin Chinese

This course, conducted exclusively in the target language, emphasizes the study of language through the introduction of literature and advanced grammatical structures.

LEVEL 5: Spanish

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.

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 sequentially.

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 and Practical Arts/Career Arts

With the New Jersey Department of Education's new codes, the areas of Visual Arts, Music, Theatre, and Dance are aligned with the State Standards for Visual and Performing Arts. 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.

Visual Arts Department Course Offerings

<i>SUBJECT</i>	GRADE				<i>CREDITS</i>
	9	10	11	12	
Drawing and Painting 1	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 & Sculpture 1	X	X	X	X	5.0
Ceramics & Sculpture 2*		X	X	X	5.0
Graphic Design 1	X	X	X	X	5.0
Graphic Design 2*		X	X	X	5.0
Print and Production 1	X	X	X	X	5.0
Multimedia and Animation	X	X	X	X	5.0
AP Studio Art			X	X	5.0
Advanced Placement Drawing Portfolio 1			X	X	5.0
Advanced Placement Drawing Portfolio 2			X	X	5.0
Advanced Placement 2D Design Portfolio 1			X	X	5.0
Advanced Placement 2D Design Portfolio 2			X	X	5.0
Advanced Placement 3D Design Portfolio			X	X	5.0

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

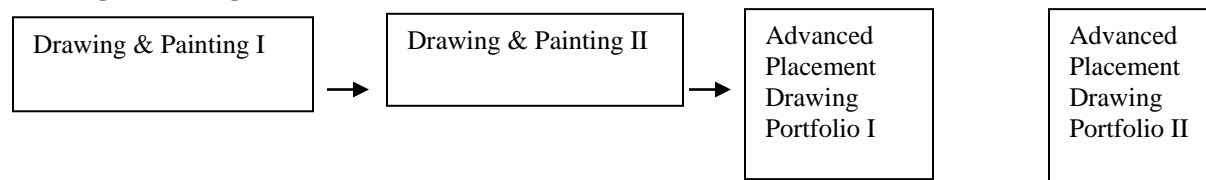
Piscataway High School
Common Visual Arts Sequences

Our Visual Arts Department 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.

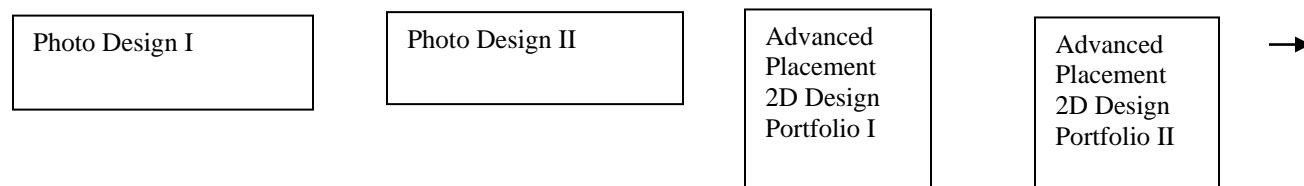
Admission to an art school depends heavily upon the depth and breadth of the student portfolio. Therefore, the Art faculty works carefully with students to prepare their portfolios for college admission. Please review the recommended sequences for the serious art student. There are four concentrated areas of study: Drawing and Painting, Graphic Design, Photography, and Sculpture. The sequences below do not represent all possible course options available at each level. Please refer to the Course Booklet for prerequisites and complete advisement information.

*Students are encouraged to pursue more challenging visual arts course opportunities when appropriate.

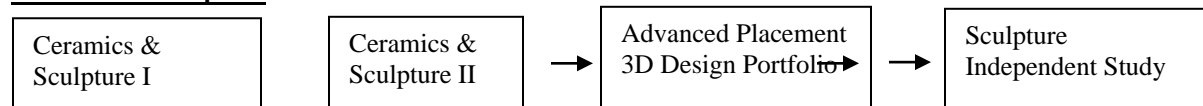
Drawing & Painting



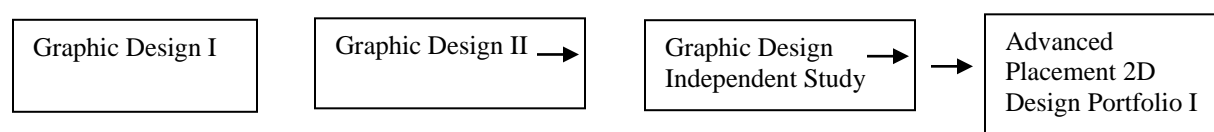
Photography



Ceramics & Sculpture



Graphic Design



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.

Additional Visual Arts Courses

Multimedia & Animation
 Print & Production I

DRAWING AND PAINTING 1*Full year Grades 9-12 5 credits*

Have you ever wanted to learn to draw? Are you planning to pursue an art or art related career? Then, this is the place for you! Come and learn a variety of drawing techniques while building a good foundation for a visual arts portfolio. Learn to use pencil, markers, watercolors, pastel, acrylic paints, airbrush and more. We also draw a wide variety of subject matter while exploring design concepts and self-expression.

DRAWING AND PAINTING 2*Full year Grades 10-12 5 credits*

Prerequisite: *Teacher Recommendation with successful completion of Drawing & 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 with successful completion of 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 1 is necessary. Classroom activities will include expanded projects in which students further explore the use and creation of graphic images, and will include advanced 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: *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 course provides a hands-on approach for understanding contemporary sculpture. Students will have the opportunity to work with clay, plaster, wire, and other found object materials to create their sculptures as well as the potter's wheel. Students will explore art history and critique as it relates to the area of sculpture.

CERAMICS & SCULPTURE 2*Full year Grades 10-12 5 credits*

Prerequisite: *Ceramics & Sculpture 1*

This course is designed to give students who have learned basic sculpting techniques the opportunity to further their study of three dimensional art. The students will learn how to use new materials, techniques, and concepts used by artists to create sculptures

PRINT AND PRODUCTION 1

Full year Grades 9-12 5 credits

Print and Production 1 covers basic principles, materials and equipment used in the major printing processes. Emphasis is placed on graphic design, print communication, screen printing, off-set press operation 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 as well as photo offset printing of memo pads and stationery—is taught in detail. This course will provide an interesting insight along with a fundamental knowledge of the Graphic Arts Printing areas.

MULTIMEDIA AND ANIMATION

Full year Grades 9-12 5 credits

This class introduces the student to the world of animation, multimedia, and interactive computer graphics. Students will learn about new technologies and experimental art forms 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 will teach students to use a variety of art 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.

ADVANCED PLACEMENT STUDIO ART

Full year Grades 11-12 5 credits

The primary focus of studio art is the production of a quality portfolio based on the student's concentration. This concentration is based on a particular visual interest or problem as well as the student's need for breadth of experience in the formal, technical, and expressive means of the artist. The portfolio requirements are based on the current college requirements and the Advanced Placement Studio Art Examination.

ADVANCED PLACEMENT DRAWING PORTFOLIO 1

Full year Grades 11-12 5 Credits

Prerequisite: *Teacher approval and successful completion of an art class.*

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. During the year, students will be offered the opportunity to take the Advanced Placement General Art Examination for college credits.

ADVANCED PLACEMENT DRAWING PORTFOLIO 2

Full year Grades 11-12 5 Credits

Prerequisite: *Teacher approval and successful completion of AP Drawing Portfolio 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. During the year, students will be offered the opportunity to take the Advanced Placement General Art Examination for college credits.

ADVANCED PLACEMENT 2-D DESIGN PORTFOLIO 1

Full year Grade 11-12 5 Credits

Prerequisite: *Teacher Approval and successful completion of an art class*

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 credits.

ADVANCED PLACEMENT 2-D DESIGN PORTFOLIO 2

Full year Grade 11-12 5 Credits

Prerequisite: *Teacher Approval and successful completion of AP 2/D Design Portfolio 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 credits. Students must have previous art experience and teacher approval before enrolling in this course.

ADVANCED PLACEMENT STUDIO ART: 3-D DESIGN PORTFOLIO

Full year Grade 11-12 5 Credits

Prerequisite: Teacher Approval and successful completion of AP 2/D Design Portfolio I

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 for 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.

Performing Arts

The Piscataway High School Performing Arts Department prides itself on its record of excellence. As students within our performing arts courses, students will learn not only the skills needed for a proficient artistic performance, but will also develop the 21st Century Skills that will make them college- and career-ready upon graduation from high school. We offer numerous courses for those interested in performing arts. Students who are interested in our dance program can enroll in one of our three dance courses with an opportunity for independent study during the fourth year. Additionally, students are encouraged to explore course options for Theatre. During the 2016-2017 school year, the performing arts course offerings will expand to include additional accelerated options and honors credit opportunities for select students in some of our advanced performing ensembles. Through commitment, hard work, discipline, and skill, many of our ensembles have won awards at the state and national levels. Some of our performing ensembles include: Beginning Men's Choir, Women's Choir, Advanced Women's Ensemble, Concert Band, Symphonic Band, and Orchestra. For the more advanced musicians, we also offer ensembles for which audition is necessary, such as Concert Choir, Honors Concert Choir, Wind Ensemble, Honors Wind Ensemble, Chamber Orchestra, and Honors Chamber Orchestra. The subsequent list and descriptions will provide additional information for each course.

Performing Arts Department Course Offerings

<i>SUBJECT</i>	GRADE				<i>CREDITS</i>
	9	10	11	12	
Beginning Men's Chorus	X	X	X	X	5.0
Beginning Women's Chorus	X	X	X	X	5.0
Advanced Women's Ensemble		X	X	X	5.0
Concert Choir		X	X	X	5.0
Honors Concert Choir				X	5.0
Concert Choir/Wind Ensemble		X	X	X	5.0
Honors Concert Choir/Wind Ensemble				X	5.0
Orchestra	X	X	X	X	5.0
Chamber Orchestra	X	X	X	X	5.0
Honors Chamber Orchestra				X	5.0
Concert Band	X				5.0
Symphonic Band		X	X	X	5.0
Wind Ensemble		X	X	X	5.0
Honors Wind Ensemble				X	5.0
Advanced Placement Music Theory		X	X	X	6.0
Beginning Guitar	X	X	X	X	5.0
Creating Music with Technology	X	X	X	X	5.0
Music by Design 1: The Path to Creativity	X	X	X	X	2.5
Music by Design 2: The Journey Continues	X	X	X	X	2.5
School of Rock	X	X	X	X	5.0
Introduction to Dance	X	X	X	X	5.0
Dance 2		X	X	X	5.0
Dance 3*			X	X	5.0
Creative Drama/Theater	X	X	X	X	5.0
Acting Studio I	X	X	X	X	5.0

2.5 Credits – Semester Course

5.0 Credits – Full Year

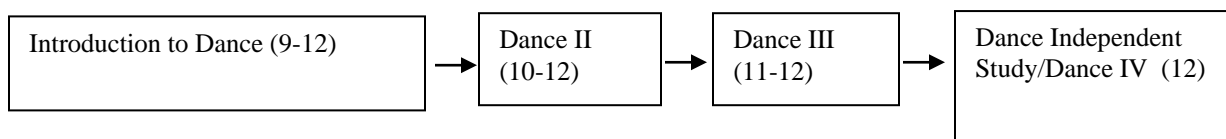
** Independent Study offered upon completion of course sequence.*

Piscataway High School
Common Performing Arts Sequences

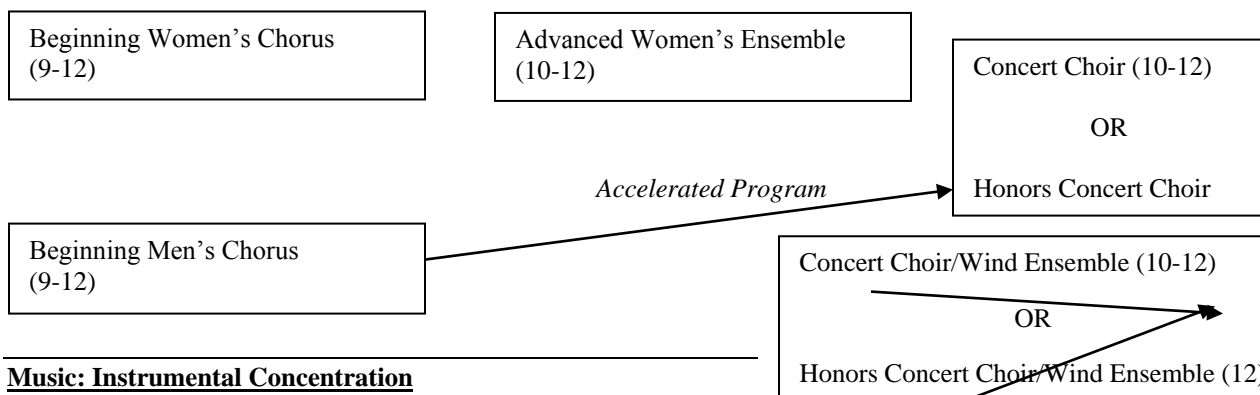
The sequences below do not represent all possible course options available at each level. Please refer to the Course Booklet for prerequisites and complete advisement information. The Dance Course Connections Map on the subsequent page can be used as a resource to highlight natural connections between the content and 21st Century Skills.

*Students are encouraged to pursue more challenging performing arts course opportunities when appropriate.

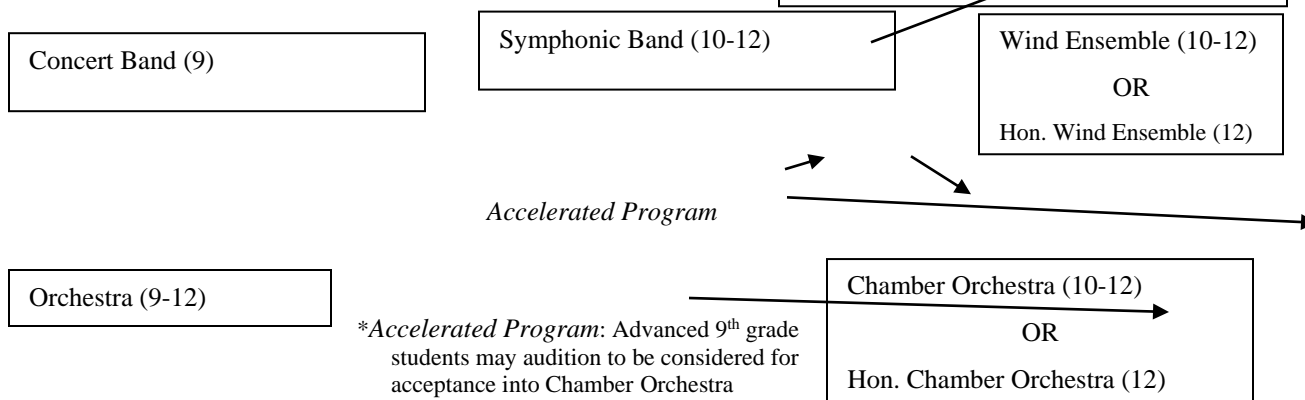
Dance



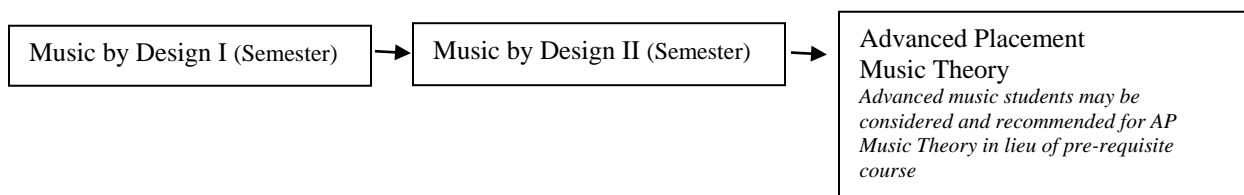
Music: Choral Concentration



Music: Instrumental Concentration



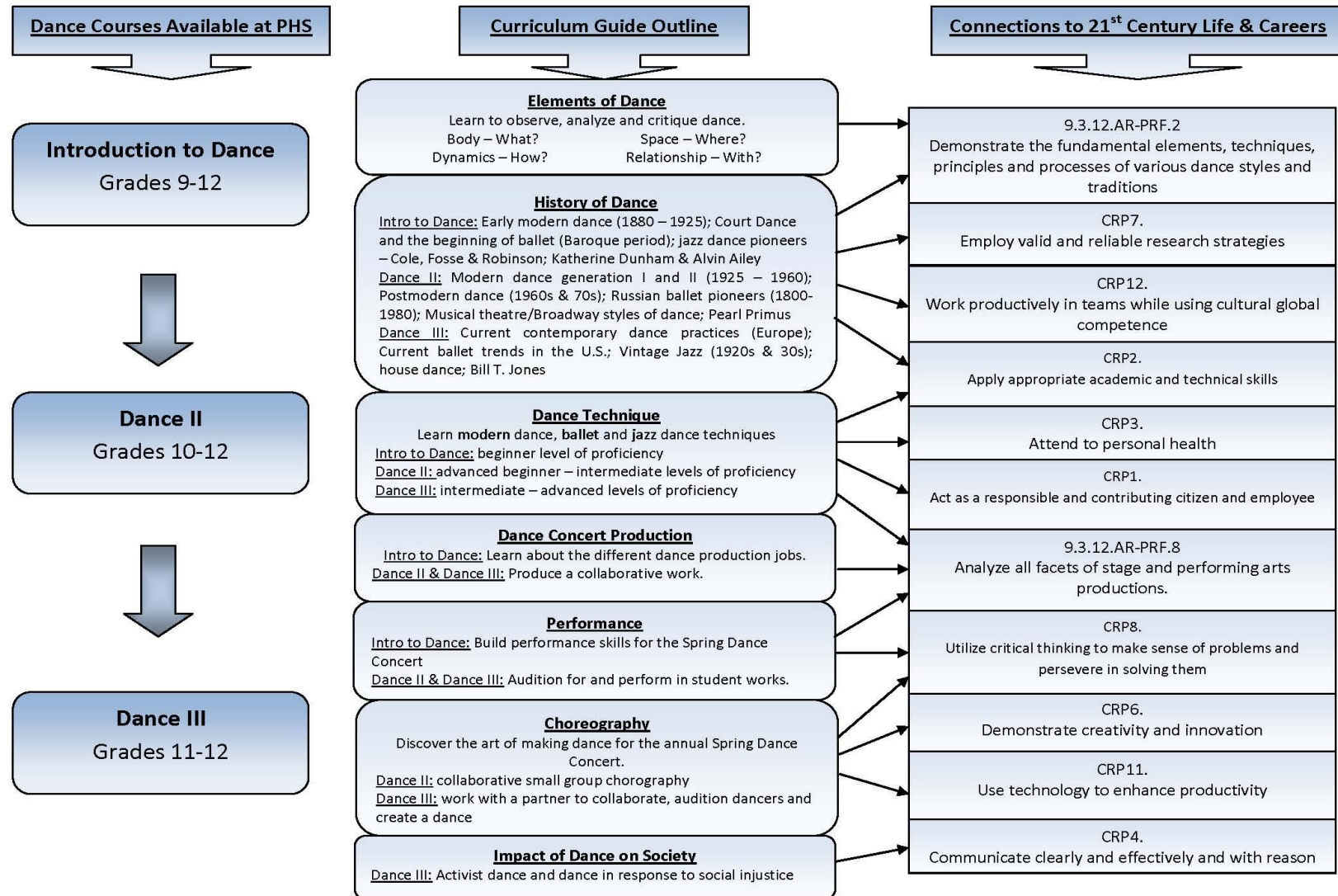
Music: Theory



Additional Performing Arts Courses

Acting Studio I	Beginning Guitar	
Creative Dramatics	Creating Music with Technology	School of Rock

Dance Curriculum Course Connections



BEGINNING MEN'S CHORUS*Full Year Grades 9-12 5 credits*

This is a beginning level course exclusively for men that requires no singing experience or audition. This performance-based course will include two mandatory evening performances. Course topics will include vocal technique, musicianship, sight singing, ensemble skills and performance.

BEGINNING WOMEN'S CHORUS*Full Year Grades 9-12 5 credits*

This is a beginning level course exclusively for women that requires no singing experience or audition. This performance-based course will include two mandatory evening performances. Course topics will include vocal technique, musicianship, sight singing, ensemble skills and performance.

ADVANCED WOMEN'S ENSEMBLE*Full Year Grades 10-12 5 credits*

Prerequisite: *Acceptance by audition and director approval.*

This is an auditioned, intermediate level ensemble designed exclusively for women who have demonstrated maturity, responsibility and commitment in rehearsal and performance. This performance-based course will include two mandatory evening performances. Course topics will include vocal technique, musicianship, sight singing, ensemble skills and performance.

CONCERT CHOIR*Full Year Grades 10-12 5 credits*

Prerequisite: *Acceptance by audition and director approval.*

This is a selective, auditioned ensemble open to male and female students 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. 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.

HONORS CONCERT CHOIR*Full Year Grade 12 5 credits*

Prerequisite: *Acceptance by audition and director approval.*

Honors credit is available to students in grade 12 who successfully audition for Concert Choir and meet additional performance requirements including, but not limited to: auditioning for Region Ensemble, performing in a chamber ensemble at additional school/community events, or performing in Chamber Choir or Noterity Ensemble. This is a selective, auditioned ensemble open to male and female students 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. 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.

CONCERT CHOIR/WIND ENSEMBLE*Full Year Grades 10-12 5 credits*

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

This combined 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 is a selective, auditioned ensemble open to male and female students 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. 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 through 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.

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.

HONORS CONCERT CHOIR/WIND ENSEMBLE

Full Year Grade 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.*

Honors credit is available to students in grade 12 who successfully audition for Concert Choir and Wind Ensemble and meet additional performance requirements including, but not limited to: auditioning for Region Ensemble, performing in a chamber ensemble at additional school or community events, and/or performing in either Chamber Choir, Noteriet Ensemble, Symphonic Orchestra, or Jazz Ensemble. This combined 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 male and female students with an advanced level of maturity, responsibility and commitment in rehearsal and performance.

ORCHESTRA

Full Year Grades 9-12 5 credits

Prerequisite: *Previous musical experience*

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.

CHAMBER ORCHESTRA

Full Year Grades 9-12 5 credits

Prerequisite: *Acceptance is by audition only.*

Chamber Orchestra is a select performance-based course that is open to students who audition successfully for admission to the course. Auditions for this group are held at the beginning of the school year and are open to all orchestra students in grades 9 through 12 with prior school orchestra experience. 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.

HONORS CHAMBER ORCHESTRA

Full Year Grade 12 5 credits

Prerequisite: *Acceptance is by audition only.*

Honors credit is available to students in grade 12 who successfully audition for Chamber Orchestra and meet additional performance requirements including, but not limited to: auditioning for Region Ensemble, performing in a chamber ensemble at additional school/community events, and/or performing in Symphonic Orchestra. Honors Chamber Orchestra is a select performance-based course that is open to students in twelfth grade 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.

CONCERT BAND

Full Year Grade 9 5 credits

Prerequisite: Previous musical experience

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: Previous musical experience

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

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 through 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.

HONORS WIND ENSEMBLE

Full Year Grade 12 5 credits

Prerequisite: Acceptance is by audition only.

Honors credit is available to students in grade 12 who successfully audition for Wind Ensemble and meet additional performance requirements including, but not limited to: auditioning for Region Ensemble, performing in a chamber ensemble at additional school/community events, and/or performing in Symphonic Orchestra or Jazz Ensemble. Honors Wind Ensemble is a select performance-based course that is open to students in twelfth grade who audition successfully for admission into the Wind Ensemble. 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 through 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 advance 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.

BEGINNING 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. They will also write their own songs.

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.

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.

MUSIC BY DESIGN 1: THE PATH TO CREATIVITY

Full Year Grades 9-12 5 credits

Prerequisite: Previous or current experience in one of the high school's performance ensembles—band, choir, or orchestra. Supervisor approval is required in lieu of this prerequisite.

If you like music and want to learn how to write down your ideas and compose your own music, then this class is for you! Music by Design 1 covers genres of music, music in our society and the elements of music. Students will learn the foundations of theory through performance on world drum instruments and keyboards. If you are interested in music and want to learn the “ins and outs”—this class is for you.

MUSIC BY DESIGN 2: THE JOURNEY CONTINUES

Full Year Grades 10-12 5 credits

Prerequisite: Music by Design 1: The Path to Creativity

Now that you have a solid musical background, it's time to breakout and create new works. Music by Design 2 builds on concepts learned in Music by Design 1. The course continues to explore the creation of new music through composition. Several music composition projects are assigned to help sharpen your musical skills. Students may have the opportunity to create, edit, and master their final compositions on CD.

SCHOOL OF ROCK

Full Year Grades 9-12 5 credits

Prerequisite: At least two years of playing experience on 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.

- 1950-1970: The beginning of Rock and Roll and the introduction of the blues in the Rock and Roll Genre.
- 1960-1970: The development of Hard Rock.
- 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 the group. Each unit will end with a performance opportunity.

INTRODUCTION TO DANCE

Full Year Grades 9-12 5 credits

In this course, the art of dance will be explored as a form of communication and cultural relevance. Introduced from a dance history perspective, the techniques and history of ballet, modern and jazz dance will be studied. Emphasis on the achievement of basic dance technical skills and the development of kinesthetic perception, energy qualities, and rhythmic awareness will be developed. At the end of each unit of study,

students are expected to perform each genre of dance at an advanced beginner level of proficiency. This course will culminate in a final year-end performance that includes teacher and student choreography.

PLEASE NOTE: This course requires afterschool and Saturday rehearsals for preparation for the Spring Dance Concert in May.

DANCE 2

Full Year Grades 10-12 5 credits

Prerequisite: *Introduction to Dance*

Dance II is a course designed for any current dance student that wants to deepen their knowledge and understanding of dance history, theory, choreography and performance, previously studied in Intro to Dance. It is designed for the serious student of dance. The course will focus on advanced beginner to intermediate technique in ballet, modern and jazz. Dance II will acquaint students with the process of developing a strong performance quality, through the use of vocal, text, and body techniques. The development of choreographic voice and expression will be the primary focus of the year. Students will be expected to create new choreography daily. All Dance II students will participate in making a collaborative choreography that will be presented at the Spring Dance Concert. As in Introduction to Dance, this course will culminate in a final year-end performance that includes teacher and student choreography. All students enrolled in Dance II are required to participate in the performance.

PLEASE NOTE: This course requires afterschool and Saturday rehearsals for preparation for the Spring Dance Concert in May.

DANCE 3

Full Year Grades 11-12 5 credits

Prerequisite: *Dance 2*

Dance III is a course designed for the advanced dancer, dedicated to the art of making dance. This course will expand upon knowledge learned in Dance II from a historical, choreographic and performance perspective; emphasizing the development of intermediate to advance level dance technique in ballet, modern, jazz and house dance. Auditioning techniques, professional career and college preparation will also be addressed. Further development of choreographic voice and expression will be the primary focus of the year. Students will be expected to create new choreography daily and experiment with the use of technology in their work. All Dance 3 students will create choreography with a peer that will be presented at the Spring Dance Concert. As in Introduction to Dance and Dance II, this course will culminate in a final year-end performance that includes teacher and student choreography. All students enrolled in Dance III are required to participate in the performance.

PLEASE NOTE: This course requires afterschool and Saturday rehearsals for preparation for the Spring Dance Concert in May.

ACTING STUDIO I

Full Year Grades 9-12 5 credits

This course will examine various aspects of the acting experience and will require a significant amount of class participation. Students will examine a process of script analysis to identify how the physical, emotional, and social dimensions of a character are communicated through the application of acting techniques. In this course, students will also develop informed personal responses to an assortment of artworks based on historical significance, craftsmanship, cultural context, and originality. Attending theatre performances may be required for this course.

CREATIVE DRAMATICS/THEATER

Full Year Grades 9-12 5 credits

Communication skills, basic acting techniques, scene study, effective group interaction, creative imaging and assertiveness training are all covered in this course. In addition to studying theatre's influence on history and present day in Western and non-Western traditions, students will also participate in structured opportunities for performing scenes/monologues and understanding basic technical theater concepts. Attending theatre performances may be required for this course.

Career Development and Exploration

The State of New Jersey mandates that all students achieve the New Jersey Core Curriculum Content Standards for 21st Century Life & Careers (Family/Consumer Science, Business Administration & Technology, 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

21st Century Life & Career Courses

Specialized courses in *Applied Technology/Industrial Arts, Business, and Family and Consumer Science* help students develop attitudes, skills, and the work ethic necessary for future success. 21st Century Life & Career classes 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.

Applied Technology/Industrial Arts Department Course Offerings

<i>SUBJECT</i>	GRADE				<i>CREDITS</i>
	9	10	11	12	
Introduction to Engineering Design (PLTW)	X	X			5.0
Principles of Engineering (PLTW)		X	X	X	5.0
Civil Engineering & Architecture (PLTW)		X	X	X	5.0
Electricity/Electronics 1	X	X	X	X	5.0
Digital Electronics (PLTW)		X	X	X	5.0
Electricity/Electronics 3*			X	X	5.0
Computer Graphics	X	X	X	X	5.0
Print and Production 1	X	X	X	X	5.0
Print and Production 2		X	X	X	5.0
Publishing and Marketing a Yearbook		X	X	X	5.0
Print and Production 3V			X	X	5.0
Print and Production 3 V*			X	X	10.0
Print and Production Senior Option				X	15.0
Introduction to Radio, Television, & Digital Filmmaking	X	X	X	X	5.0
Television Broadcasting 2		X	X	X	5.0
Digital Video Editing		X	X	X	5.0
Advanced TV Production (Honors)			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

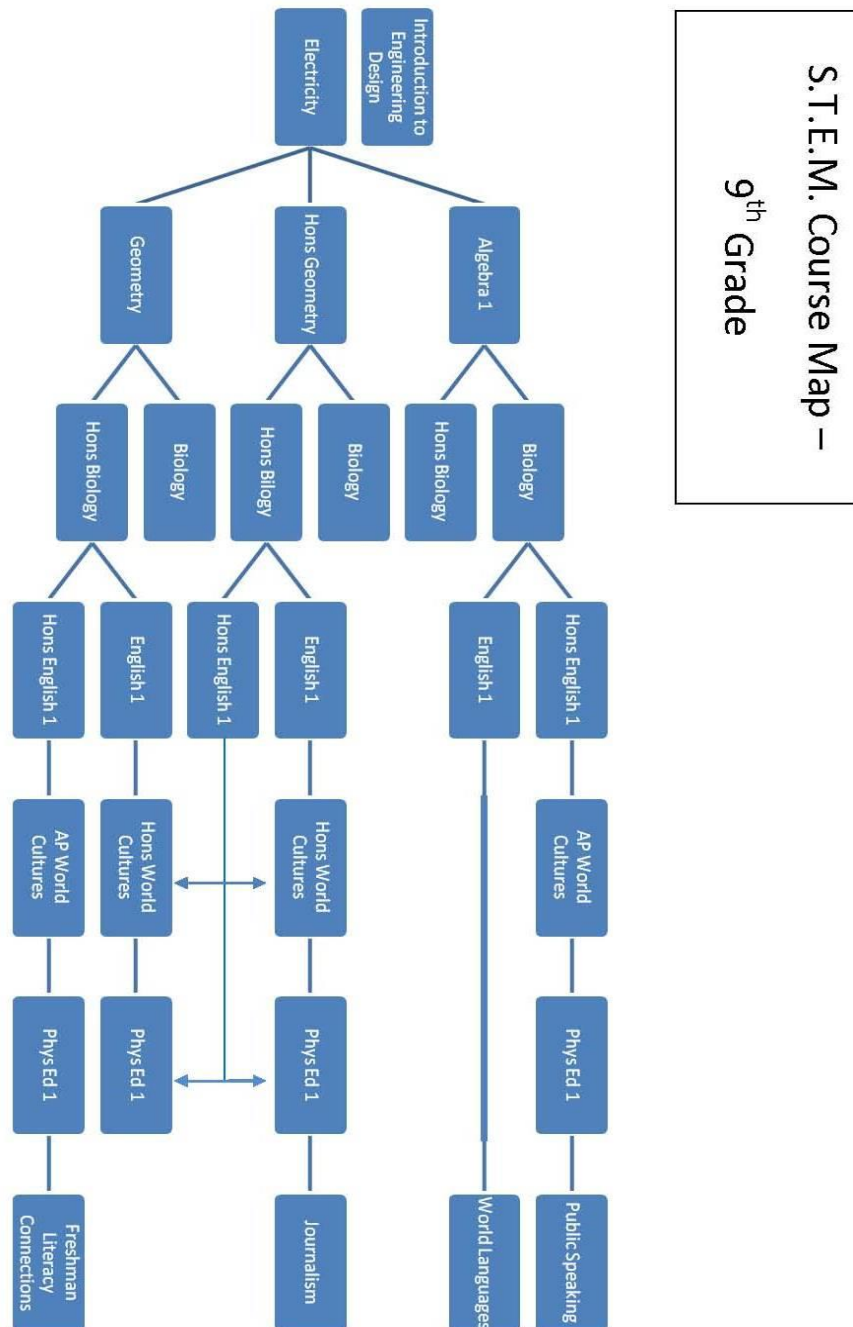
* Independent Study offered upon completion of sequence.

5.0 Credits – Full Year

10.0 Credits – Full Year (Double Class Periods)

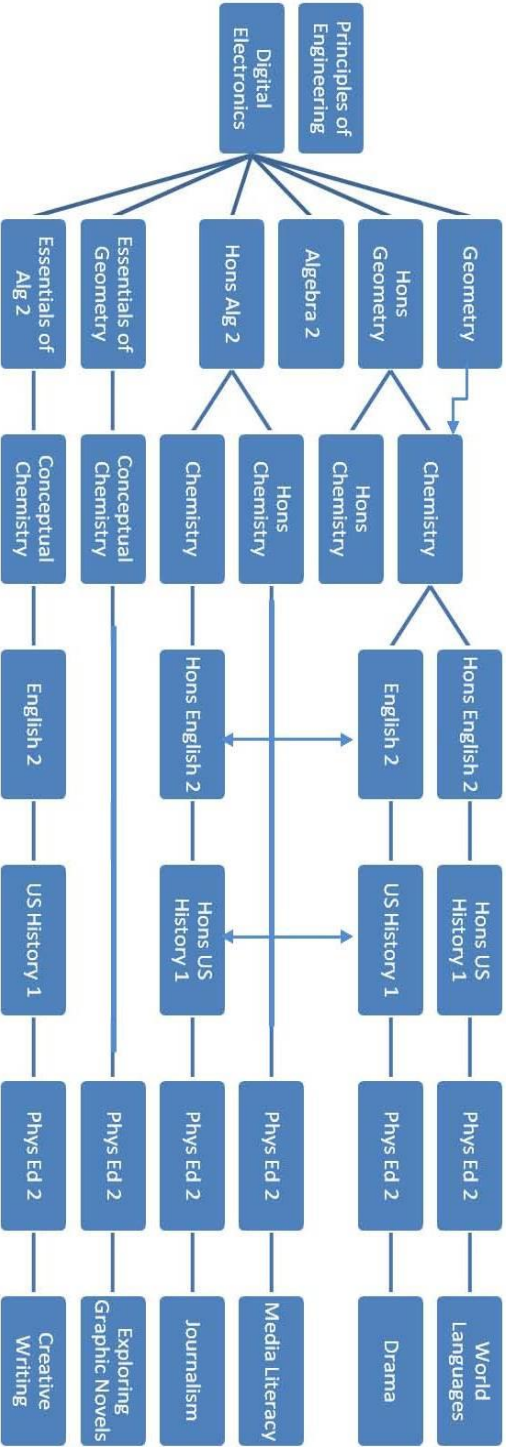
*The sequences below do not represent all possible course options available at each level.
Please refer to the Course Offerings Booklet for complete advisement information.
Students are encouraged to move to more challenging sequences when appropriate.

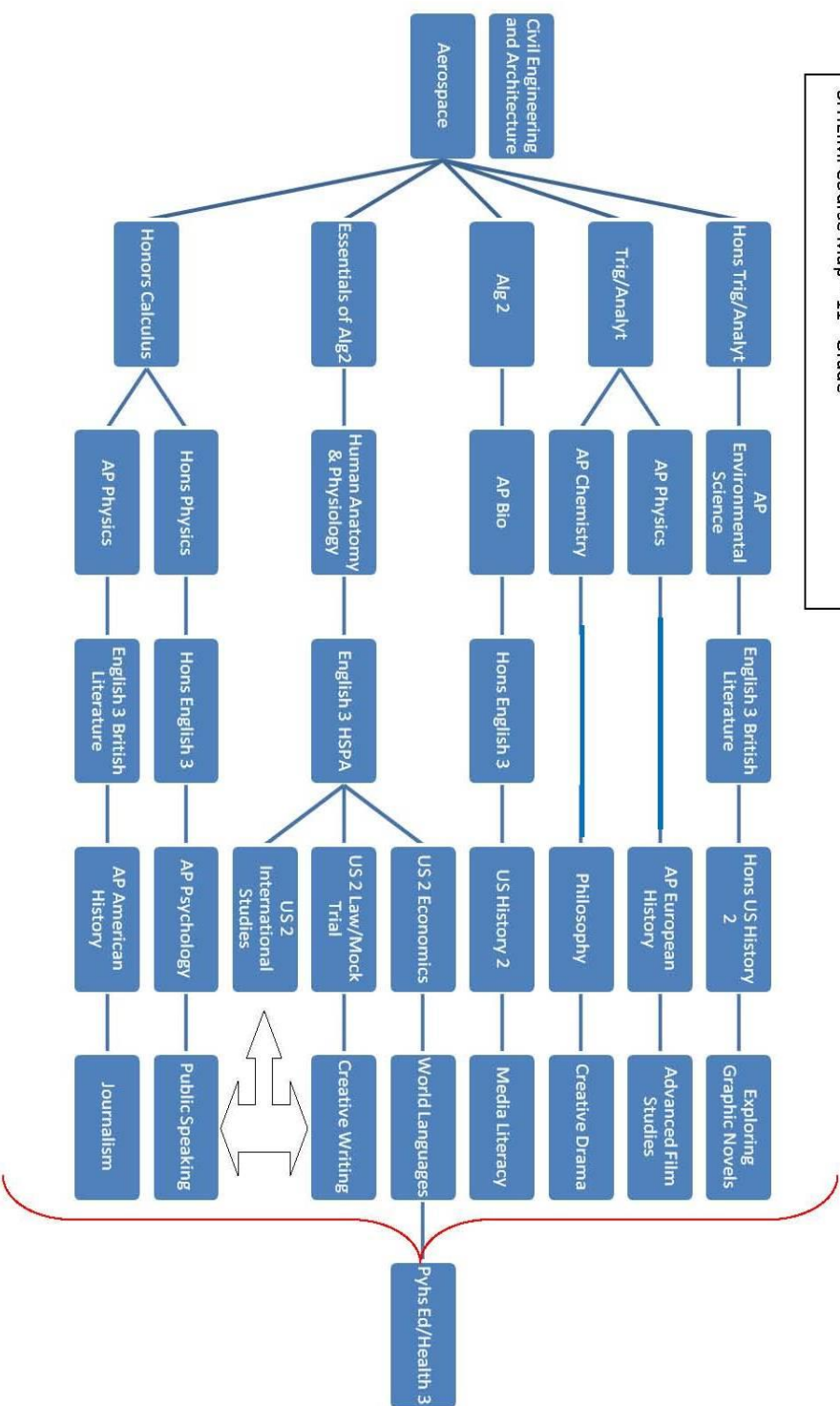
The Applied Technology/ Industrial Arts program is designed to offer students hands-on experiential learning opportunities that incorporate many of the 21st Century Skills, such as problem solving, critical thinking collaboration and the appropriate use of technology. Through a national engineering program, **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.

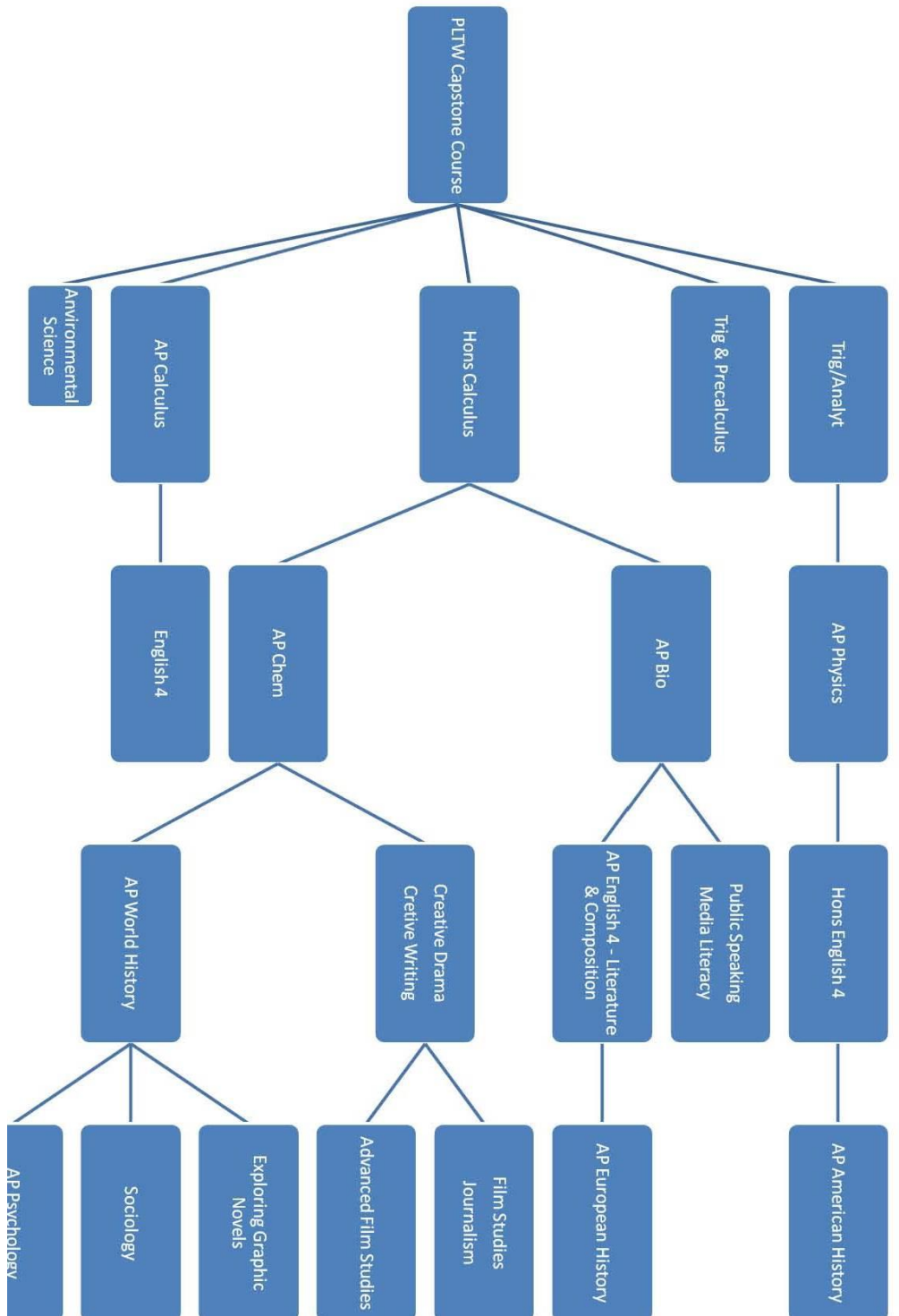


S.T.E.M. Course Map –

10th Grade







Applied Technology/Industrial Arts Design and Technology

There are a wide variety of courses offered by the Applied Technology/Industrial Arts Department that help students develop attitudes, skills, and the work ethic necessary for future success. The courses are Computer-Aided Drawing, Engineering & Design, Architectural Drawing, Electricity/Electronics, Computer Graphics, Wood Technology and Radio & TV Broadcast Technology. These courses offer students the opportunity to explore, learn, and apply skills related to the real workplace. Computer TIA A+ and Cisco certification also offer valuable learning opportunities for the serious-minded technology students.

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 or Electronics. Students will learn the use of test equipment and will explore both direct current and alternating current circuits. Some of the topics discussed are electromagnetism, motors, generators, oscilloscopes, vacuum tubes, and solid-state devices including diodes and transistors. Laboratory experiences include house wiring exercises and basic circuit experiments.

DIGITAL ELECTRONICS (PLTW)*Full Year Grades 10-11 5 credits***Prerequisite:** *Electricity or Introduction to Engineering Design (PLTW)*

Digital Electronics is an advanced course that will expose students to the design process of combinational and sequential logic design, 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.

ELECTRICITY/ELECTRONICS 3*Full year Grades 11-12 5 Credits***Prerequisite:** *Electricity/Electronics 2*

The electronics portion of this course introduces students to A.M. and F.M. transmitters. It also explores the basics of television reception and transmission and their relationship to radar. Students will build projects of their choice such as mini robots, power supplies, wireless microphones, strobe lights, and other devices incorporating solid-state design. Today's innovations in electronics are included in a unit on advanced solid-state devices. This unit introduces students to fiber optics, digital logic circuits, and the internal operation of the computer. Students will program and operate robot arms. They will also learn commercial and industrial wiring techniques and how to read and interpret their respective blueprints.

COMPUTER GRAPHICS*Full year Grades 9-10-11-12 5 Credits*

How can you get the most out of a computer and create great looking projects and school assignments? In Computer Graphics you will learn word processing, desktop publishing, and design. You will use scanners, digital cameras, many types of graphic and design programs, and have access to over 400,000 clip art images. Beginning with basic computer programs and advancing to the most sophisticated design and layout programs, you will be able to proceed at your own rate and ability and go as far as you want to!

PRINT AND PRODUCTION 1*Full year Grades 10-12 5 credits***Prerequisite:** *Graphic Arts 1*

Graphic Arts II is a project oriented course which will provide the student with an in depth understanding of graphic arts production. The use of computer graphics, print communications and design, computer typesetting and word processing is expanded. This course will devote time to multi-color photo offset work, and advertising design and layout. Project development will be in the areas of personalized stationery, greeting cards, pamphlets, brochures, and business cards.

PRINT AND PRODUCTION 2*Full year Grades 11-12 5 credits**Full year Grades 11-12 10 credits***Prerequisite:** *Print & Production I.*

Graphic arts 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: word processing, composition and layout and design, paste-up, camera, stripping, plate making, presswork, and bindery. 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.

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.

PRINT AND PRODUCTION STUDENT OPTION

Full year Grade 12 15 credits

See description for Student Option.

INTRODUCTION TO RADIO, TELEVISION, & DIGITAL FILMMAKING

Full Year Grades 9-12 5 credits

(Class size limited to 16)

All television programs are now digitally broadcast. How and when did broadcasting begin, and how did we reach this point? In this course you will get answers to these questions and begin to ponder what technologies may be looming in the near future.

You will also learn how to REALLY understand what you are looking at on TV by learning different strategies that advertisers and television producers use to get you to feel or act a certain way.

In this course you will create your own video and radio programs in our state of the art television and radio studios. You will also work in teams to create digital films that will be entered into statewide film challenge contests. Projects may include commercials, public service announcements, music videos and/or interview programs. Digital video editing using Adobe Premiere Pro and/or Apple Final Cut Pro software will be introduced.

TELEVISION BROADCASTING 2

Full Year Grades 10-12 5 credits

Prerequisite: *Introduction to Radio and Television Broadcasting or approval of Department Head*

(Class size limited to 16)

In this course you will continue to create your 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; teleprompters and various format recorders (mini DV videotape, DVD, CD, HDV, etc.). You will be videotaping in our new studios, and “on location” throughout the school.

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, mastering to tape or DVD). Communication, critical thinking, troubleshooting, and teambuilding skills will be developed through the production of cable news magazine programs, school projects, and public service announcements.

Various methods of distributing programming including videotaping, streaming over the web, downloading onto a DVD, uploading to the Internet, storing on a server for access elsewhere will be covered. Video programs will be cablecast on the local public access cable channel.

DIGITAL VIDEO EDITING

Full Year Grades 10-12 5 credits

Prerequisite: *Students must have obtained a passing grade in all previous departmental classes*

(Class size limited to 17)

In this course, students will learn how to edit video programs using Final Cut Pro and/or Adobe Premiere Software Suites on state of the art Macintosh Computers connected by a new fiber optic network. Create stunning special effects as you begin to use Apple Motion 3 or Adobe After Effects software to create graphics and animation effects for your videos.

Students will learn professional DVD authoring using DVD Studio Pro and Adobe Encore software programs. Video projects created will be suitable for: cablecast on the local public access station; importing into a software program such as PowerPoint; storing on a computer server for multiple user access, and creating a DVD.

INDEPENDENT STUDY IN RADIO OR TELEVISION OR DIGITAL VIDEO EDITING

Prerequisite: *Students must be recommended by Mr. Fairfield, Mrs. Pascullo, or Ms. Bickerton*

Full Year or Semester Grades 10-12 5 credits (full year) 2.5 credits (semester)

Advanced students have the opportunity to continue their radio/TV/video editing studies by enrolling in an independent study course designed around their specific interests. See your counselor for details.

ADVANCED TV PRODUCTION (Honors)*Prerequisite: Television Broadcasting 2 and Digital Video Editing**Full Year Grade 11-12 5 credits in Practical Arts*

Special attention will be paid in this course to learning the elements of shooting in the film style as well as translating literature into a visual medium. Students can produce either documentary or dramatic films, and both short subject and "Feature Length" will be possible. Film crew positions will be assigned as students assist each other with projects. Students will rotate through several positions including, Editor, Script writer, Director, and Production crew. Strict adherence will be paid to writing treatments, scripts and shooting scripts, directing talent for film, setting realistic shooting schedules, and the elements of budgeting a film. Completed projects will be eligible for review and acceptance to "PHS TV/DVE" for broadcast. Those wishing to prepare an admissions portfolio for college or technical schools will be assisted and advised throughout this course.

STUDENT OPTION AT PISCATAWAY SCHOOLS TELEVISION (PSTV) OR WVPH 90.3FM*Prerequisite: Students must be recommended by Mr. Fairfield, Mrs. Pascullo, or Ms. Bickerton**Full year Grade 12 5-15 credits*

Students who have taken any of the Radio/TV/Editing classes may enroll in the Student Option program and work with video professionals at PSTV – the District TV Studio or WVPH FM – Piscataway High School's radio station. Work hours are available during or after school. Students will receive more in-depth training and hands-on experience using broadcast quality equipment while gaining valuable work experience. Student Option students also receive high school credits for their work.

WOOD TECHNOLOGY 1*Full year Grades 9-10-11-12 5 Credits*

This course is a project oriented woodworking experience with emphasis on good work habits and safety. Project development and planning, material selection, shop math, use of hand and power tools, and methods of fastening and finishing are areas covered. Students will develop an appreciation for the professions of the furniture maker, cabinetmaker, and the carpenter. Required projects, as well as student-selected projects, will be constructed within the limitations of the student's ability and materials available.

WOOD TECHNOLOGY 2*Full Year Grades 10-11-12 5 Credits***Prerequisite:** Wood Technology 1

This course is intended to enhance the student's skills in the use of hand tools and machines. It is a project-oriented course with the emphasis on furniture construction. Students will use traditional and contemporary methods to make a table with a drawer. A variety of styles, including traditional, Early American, Shaker, or contemporary, may be chosen. Fine craftsmanship and safe work habits are stressed throughout this course.

WOOD TECHNOLOGY 3*Full Year Grades 10-11-12 5 Credits***Prerequisite:** Wood Technology 1 and Wood Technology 2

This advanced course in woodworking is a comprehensive course in cabinet making. Each student will design and construct a cabinet using both traditional and contemporary techniques. Topics will include: raised-panel doors, face frames, hardwood laminates, shelves, top attachment systems, and finishing schedules. Fine craftsmanship and safe work habits are stressed throughout this course.

Business

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, organizational behavior 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 Department Course Offerings

<i>SUBJECT</i>	GRADE				<i>CREDITS</i>
	9	10	11	12	
Accounting 1 ^R	X	X	X	X	5.0
Accounting 2		X	X	X	5.0
Honors Accounting *			X	X	5.0
Business Organization & Management* ^R		X	X	X	5.0
Economic Seminar* ^R			X	X	5.0
Personal Finance ^R		X	X	X	2.5
Law and Business		X	X	X	5.0
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) Accounting 2 (year) Personal Finance (sem.) Law & Business (year) Business Org. & Management (year) Student Option (year)</p> <p style="text-align: center;"><u>Grade 11</u> Accounting 1 (year) Accounting 2 (year) Personal Finance (sem.) Law & Business (year) Business Org. & Management (year) Economic Seminar (year) Student Option (year)</p> <p style="text-align: center;"><u>Grade 12</u> Accounting 1 (year) Accounting 2 (year) Honors Accounting (year) Personal Finance (sem.) Law & Business (year) Business Org. & Management (year) Student Option (year) Economic Seminar (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.) Economic Seminar (year) Senior Option Computer Graphics Accounting 1 (year) Web Pages (sem., year)</p>

ACCOUNTING 1

Full year Grades 9-12 5 credits

This course introduces the student to the monetary aspect of the business world. The student will learn a system of accounting for all monies in a business venture. The course will increase understanding and awareness of the day-to-day operation of a business.

The student will perform such tasks as recording financial data in the proper accounting records, writing checks, and paying bills on their individual computers. The purpose of the project is to totally understand the theory and practice of Accounting.

ACCOUNTING 2

Full year Grades 10-12 5 credits

Prerequisite: *Accounting 1*

This advanced level course is designed for the student who is thinking of a career in Accounting, Finance, Business Administration, or other related business majors. The emphasis will be on corporate accounting and financial record preparation and analysis. Students will also learn about saving and investing, preparing a budget, risk management and insurance, careers and potential income, financial responsibility and decision making.

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

This college-level course in Accounting is designed for high school students who intend to major in accounting. This course focuses on financial accounting covering all types of business organizations and offers an opportunity to create a foundation of knowledge not just for accounting but for business processes and practices. Since this is an HONORS course the pace of the offering is closer to a post secondary level where outside of class activities are assigned on a daily basis. 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 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.

ECONOMIC SEMINAR (HONORS)*Full year Grades 11-12 5 credits***Prerequisite:** *GPA of 85 or higher*

This college-level course in Economics is designed to high school students. Economics is essentially about decision making. Macroeconomics will be covered. It deals with the economy as a whole and examines issues such as economic growth, inflation, and unemployment as well as the effectiveness of fiscal and monetary policy in promoting economic growth and stability. Students understand the importance of saving and investing, preparing a budget, risk management and insurance, careers and potential income, financial responsibility and decision making. Students in this class will also be eligible to audition for the Fed Challenge team. This course will be offered for dual credit, from Middlesex County College as well as from Piscataway High School.

LAW AND BUSINESS*Full Year Grades 10-12 5 credits*

Teaches the student the operation of our legal system and explains the law and courts in relation to the individual. The student will learn about the legal aspects of contracts, negotiable instruments, installment purchases, etc.

MARKETING*Full year Grades 9-12 5 credits*

Marketing is an elective course covering the areas of marketing and distribution, merchandising management, as well as advertising, display, fashion, business communications, salesmanship, and all phases of preparation for employment. Class utilizes computer knowledge for reports, marketing plan, and career development. As a member of the class, students participate in the operation 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 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 10-12 2.5 Credits

The average teenager in the United States spent \$4000. Over 3.5 million teenagers have access to credit cards. Whether they earn \$5000 or \$500,000, many of these young adults have no idea where their money is going. Students will learn how to create a budget, how to control their finances, how the economy and politics affect us and how investing in our human capital will impact future earnings. Students understand the importance of saving and investing, preparing a budget, risk management and insurance, careers and potential income, financial responsibility and decision making.

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.

SPORTS AND ENTERTAINMENT BUSINESS

Semester Grades 9-12 2.5 credits

This specialized course is recommended for students with a career interest in the field of sports, entertainment, and recreation. In addition to providing a fundamental knowledge of national and global marketing, this course is designed to equip students with entry-level competencies in the areas of sponsorship, promotion, advertising, legal contracts, agents, event marketing, and communications. 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. Animated and interactive features will also be learned. Students will learn to create Web pages that let users easily and quickly access information. In this course students will create a personal Web page as well as work with the school's Web site. They will be creating Web pages using the HTML programming language and Dreamweaver.

STUDENT OPTION

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

- Prerequisites:**
- Application
 - 2 Letters of Recommendation
 - Approval of Student Options Teachers.

Students gain experience working with their mentor and teachers to best suit their career objectives. They gain on-the-job training right here at PHS or within the district. Students will accomplish many different tasks. They also learn business skills in preparing paperwork for an unpaid internship. Assignments include completing a "reflective journal" each day, meeting the Student Option Coordinator to discuss any issues and successes in their training, and daily on-the-job training with mentor.

COOPERATIVE EDUCATION

Full Year Grade 12 10, 15, 20 credits

- Prerequisites:**
- Application
 - Approval of Cooperative Education teacher and concentration area teacher from the occupational programs
 - At least five credits in the area of concentration, such as: business, child care, culinary arts, graphic arts, industrial, or marketing.

This 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, and problem solving. 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 is an internship that 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

Family and Consumer Science Department Course Offerings

<i>SUBJECT</i>	GRADE				<i>CREDITS</i>
	9	10	11	12	
Foods and Nutrition	X	X	X	X	5.0
Child Development		X	X	X	5.0
Experiencing Education			X	X	10.0
Cooperative Education in Child Care ∇				X	15.0

∇ Senior Option

*Independent Study offered upon completion of course sequence.

5.0 Credits -Full Year

10 Credits-Full Year (Double Class Periods)

15 Credits-Full Year (Triple Class Periods)

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. A special emphasis is placed upon nutrition and the ability to prepare and serve well-balanced meals.

CHILD DEVELOPMENT

Full year Grades 10-11-12 5 Credits

The students in this course learn about parenting, pregnancy, childbirth, growth, development, and guidance of children from birth to school age. Within the classroom the students interact with pre-schoolers from our preschool program or children in our autistic classroom. They will develop lesson plans that are developmentally appropriate for the children. Assuming the role of the “teacher” the students will develop activities for the areas of reading, music, art, science, and math.

NOTE: This course requires an application. Please see Mr. Guarino.

EXPERIENCING EDUCATION

Full year Grades 11-12 10 Credits

Prerequisite: *Child Development*

Students in this course will learn how to plan for effective learning, and to understand the strengths and weaknesses of a variety of teaching methods. Different preferred processing styles and their implications for lesson design will be included with the analyzing of developmentally appropriate practices for teaching and learning. This course is designed for tomorrow’s teachers or for those students who plan to work in child related occupations such as child psychologist, pediatrics, pediatric nursing, toy designer, or children’s story writer.

COOPERATIVE EDUCATION IN CHILD CARE

Full year Grades 12 15 Credits

Prerequisite: *Child Care 1 & 2*

See description for Cooperative Education.

AIR FORCE JUNIOR ROTC

Air Force Jr ROTC Course Offerings

CURRICULUM PLAN FOR AFJROTC UNIT NJ-761								
CADET YEAR	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2014/2015
1	AS-1/LE-I	AS-1/LE-I	AS-1/LE-I	AS-1/LE-I	AS-1/LE-I	AS-1/LE-I	AS-1/LE-I	AS-1/LE-I
2	AS-2/LEII	AS-3/LE-III	AS-2/LEII	AS-3/LE-III	AS-2/LE-II	AS-3/LE-III	AS-2/LEII	AS-3/LE-III
3	AS-2/LE-II	AS-3/LE-III	AS-2/LE-II	AS-3/LE-III	AS-2/LE-II	AS-3/LE-III	AS-2/LEII	AS-3/LE-III
4	AS-4A/B	AS-4A/B	AS-2/LE-II	AS-4A/B	AS-4A/B	AS-4A/B	AS-4A/B	AS-4A/B

AEROSPACE SCIENCE Course 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 course 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 and Leadership Education are simultaneously taught in each academic year with approximately 50% of the student's grade earned in science and 50% earned in leadership.

AEROSPACE SCIENCE 1

Grades: 9-12 Full Year 5 credits

Leadership - Citizenship, Character and Air Force Tradition I

Introduces the student to the mission of Air Force Junior ROTC, its organization and philosophies. Students learn customs and courtesies associated with classroom activities, the United States flag, and the wear of the Air Force Junior ROTC uniform, to include attitude and discipline expectations. Students will also receive instruction in study habits and time management, drug and alcohol abuse, sexual harassment and first aid.

Aerospace – A Journey into Aviation History

The purpose of this aviation history course is to focus on the development of flight throughout the centuries. It starts with ancient civilizations, then progresses through time to modern day. The emphasis is on civilian and military contributions to aviation; the development, modernization, and transformation of the Air Force; and a brief astronomical and space exploration history.

AEROSPACE SCIENCE 2 –

Grades: 10-12 Full Year 5 Credits

Prerequisite: Aerospace Science 1

Leadership - Communication, Awareness, and Leadership

Introduces students to effective communication skills necessary to assume positions of responsibility in the cadet group. Effective writing, speaking, and listening skills are emphasized. Students also develop an understanding of individual and group behavior, to include exercises in motivation, defense mechanisms, and individual responsibility. This course will present basic leadership concepts and principles, situational leadership activities, and techniques for effective teamwork.

Aerospace – The Science of Flight, Global and Cultural Studies

This course introduces the aerodynamics of aviation. The student will study four areas of flight that impact the pilot and the aircraft: physiology, weather, aerodynamics, and navigation. This aerospace science course is designed to acquaint the student with the aerospace environment, the principles of flight and navigation, and human limitations of flight. After developing an understanding of Earth's environment, the environmental impact on flying is introduced. Discussions include the forces of lift, drag, thrust, and weight. Propulsion systems to include the turbojet, turbofan, rocket, and reciprocating engines are examined in detail. Students learn basic navigation skills including map reading, course plotting, the effects of wind, human physiological requirements for the circulatory system, the effects of acceleration and deceleration, and protective equipment used while flying.

AEROSPACE SCIENCE 3

Grades: 10-12 Full Year 5 Credits

Prerequisite: *Aerospace Science I*

Leadership – Life Skills and Career Opportunities

Course is designed to prepare the student for life after high school. Planning for career paths and job search receives in-depth coverage. Application procedures for college and other post-secondary school education opportunities are discussed. Students study career opportunities in the Air Force, to include officer and enlisted career paths, as well as career opportunities in other government agencies and the Federal Aviation Administration

Aerospace – The Exploration of Flight, Global and Cultural Studies

This course explores the basics of astronomy with emphasis on the solar system and man's historical perception of space. Also covered is the history and development of space exploration, the current aerospace developments and reviews the space exploration program. Students will study the technology used in man's first exploration efforts in space and the developments that led to the landings on the Moon. This course examines space technology and the role of the National Aeronautics and Space Administration. Students will consider the astronautics of launch and recovery of spacecraft, and possible future space exploration efforts and theories.

AEROSPACE SCIENCE 4 (OPEN TO FOURTH YEAR AFJROTC CADETS.)

Grades: 12 Full Year 5 Credits

Prerequisites: *Aerospace Science I, II, and III*

OPTION A- Leadership – Management of the Cadet Group

This is the senior-level AFJROTC course. It is not open to entry-level students (students who are new to the AFJROTC program). Cadets enrolled in this course have responsibility for planning, organizing, coordinating, directing, and controlling the cadet group. Selected cadets are placed in positions of responsibility and authority to ensure all cadet activities are properly conducted and accomplished. This aerospace science course stresses the challenge of command and staff, and career management. It also integrates and applies all previous academic and leadership instruction by requiring the cadet commander and senior staff to run all aspects of the cadets' corps. These duties and responsibilities include command, operations, administration, personnel, awards and decorations, finance, public affairs, discipline, and resource management.

OPTION B- Leadership- Principles of Management

Introduces students to management theory. Management process is taught, to include planning, organizing, coordinating, directing, and controlling. Students are given increased opportunity to practice these skills in cadet group activities. Citizenship skills are taught, and emphasis is given to ethics, with instruction in values, morals, and culturally accepted codes of conduct.

AEROSPACE SCIENCE 5 – SUMMER LEADERSHIP SCHOOL

Grades: 9-11 10 to 14 days (NO SCHOOL CREDITS AWARDED)

Prerequisites: *Aerospace Science I, II, and III*

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. **As with other summer programs, there are tuition and supply fees associated with this course.**

ADDITIONAL INFORMATION

- 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.

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 30 credits.

GRADE 9	CR	GRADE 10	CR
Physical Education 1/Health	5	Physical Education 2/Health	5
English 1	5	English 2	5
World Cultures	5	U.S. History 1	5
Math	5	Math	5
Science	6	Science	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
Lunch	0	Lunch	0
GRADE 11	CR	GRADE 12	CR
Physical Education 3/Drivers Ed	5	Physical Education 4/Health	5
English 3	5	English 4	5
U.S. History 2	5	Lunch	0
Math	5		
Science	5		
Lunch	0		

Student Signature

Parent/Guardian Signature

Date

*See Graduation Requirement Chart

PISCATAWAY HIGH SCHOOL

Principal

Jason Lester

Assistant Principals

Antoine L. Gayles, Ed.D.

Matthew T. Ritchie, Ed.D.

Department Chairs

Robert Harmer

Athletic Director and Supervisor of Physical Education

Daniel J. Ross, Esq.

Mathematics Department

Carrie Thomas

English Department

Gita Manchanda

Science Department

James Knox

Social Studies Department

Theresa Edmondson

College, Career, & Personal Guidance Department

Glennysha Jurado-Moran

World Languages/ESL Departments

Keith Guarino

Supervisor of Practical Arts Department

Mia H. Kirk

District Supervisor of Visual and Performing Arts

Laura Reigelsperger

District Supervisor of Secondary Special Education

Deans

Jonathan Bizzell

Herbert Robinson

April Hurt

M. Stephanie Rogers