

PASSAIC COUNTY TECHNICAL INSTITUTE

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Mission Statement

We are a diverse, progressive learning community that promotes educational excellence by challenging our students to become knowledgeable, productive and socially conscious members of a global society through quality educational programs delivered by a highly skilled and dedicated staff in a nurturing environment.

PCTI ADMINISTRATION

Diana C. Lobosco, Chief School Administrator
Dr. Richard Spirito, Interim Assistant Superintendent
Joseph M. DiGise, Principal
Nick Bucci, Director of Pupil Personnel Services

PCTI BOARD OF EDUCATION

Albert A. Alexander, President
Damaris Solomon, Vice President
Robert Gilmartin, Commissioner/Executive County Superintendent
Leon Mondelli, Commissioner
Glenn L. Brown, Commissioner
Mae Remer, Board Secretary

Graduation Requirements

The Board shall certify annually to the County Superintendent that each student who has been awarded a diploma has met the requirements for graduation, which shall include total credit hours, individual course requirements, demonstration of the mastery of basic skills and satisfactory attendance.

All students must successfully pass the Grade 11 New Jersey High School Proficiency Assessment (HSPA) examination in reading, writing, and computation skills or other mandates as required by the New Jersey State Department of Education.

In order to qualify for a PCTI diploma, a student must earn a minimum of 160 credits as follows:

Satisfactory completion of the following academic and vocational/technical course requirements:

English	20 credits
Mathematics	15 credits
Social Studies	15 credits
Physical Education/Health	20 credits
Science	15 credits
Electives*	15 credits

*will include 2.5 credits in Personal Financial Literacy beginning with the graduating class of 2014

World Language	5 credits
Visual and Performing Arts	5 credits
Career Exploration/Development	5 credits
Vocational Shop	45 credits

(Each student is required to complete three years of Technical/Vocational training of which 15 credits must be successfully earned in grade 12)

Students entering PCTI at grades 10 or 11 must enter with the courses aligned with our graduation requirements.

Students with disabilities are required to meet all graduation requirements unless otherwise indicated in their IEP.

Students entering at grade 12 must have satisfactorily completed similar or related occupational areas in some other vocational/technical high school.

Curriculum Design ... A Blueprint for Change

Curriculum- what is taught and how it is taught- is essential to a quality education. A comprehensive curriculum is systematically planned and evaluated. It reflects the intentions of the school, promotes continuity of experiences and arranges learning opportunities that allow for individualization. An inclusive curriculum utilizes the most effective learning experiences and resources available, while making provisions for the optimum development for the learner.

In today's society, the problem of what to teach is a complex issue. While there are many divergent views on this matter, one point is evident. If we are to play an effective role in preparing our students for life in the Twenty-First Century, we must recognize the need to keep pace with the global changes occurring around us. A long range plan has been formulated for the methodical review of course content and pedagogical strategies as exemplified in the curricula of Passaic County Technical Institute.

The New Jersey Department of Education adopted the Core Curriculum Content standards in October of 2004. These standards exist in the areas of Visual and Performing Arts, Comprehensive Health and Physical Education, Language Arts Literacy, Mathematics, Science, Social Studies, World Language, Technological Literacy, 21st Century Life and Careers. Curriculum planning at PCTI will include alignment with the most current standards and the frameworks provided by the NJDOE. They will be an integral part of instruction in the entire district. As per the New Jersey Department of Education "To be effective, schools must continually rethink their processes". PCTI has already adopted team-teaching practices, incorporated cooperative learning, maximized technological resources and formed business and industry partnerships. PCTI is committed to maintaining expectations for their students. An educational environment which focuses on the use of repetitive and low-level cognitive activities does not prepare students for the demands of the next century. Curricula must contain challenging ideas and tasks applied to real-life, problem-solving activities that stimulate reasoning, while fostering creativity.

To help students function in a diverse society, they need to experience the heterogeneity of humanity and the work world. Schools should set standards for work ethics and human interactions. In addition, the educational setting should reflect the cooperative team approach used by industry, while allowing, and encouraging, independent thought and growth. Students should also be encouraged to take intellectual risks in an environment which promotes intellectual exploration, creative thinking and open exchange of ideas.

Students will apply their core knowledge in a wide range of opportunities. They must therefore be allowed to acquire and use, in a variety of ways, the knowledge represented by these core curriculum content standards. At PCTI, traditional courses no longer provide the only approach to learning and reinforcing skills. We continually seek out new avenues for learning and provide state of the art resources. These experiences will include greater interaction with business, industry, local government, and community organizations; volunteer/service activities; and part-time jobs.

The College Connection Record of Success



The "College Connections" program has resulted in more than 300 PCTI students earning from 3 to 18 college credits BEFORE graduation! Students earn credits through a variety of methods including on-line courses and ITV. Instruction is provided by college faculty who teach at the PCTI site. Still other PCTI students are afforded the opportunity to be transported to local college campuses, for the actual experience. In addition, several PCTI faculty members are certified for instruction of college level courses. Our students are currently enrolled in a wide array of course options including;

- College Mathematics
- Networking Essentials
- Intro to Psychology
- Early Childhood Education
- Accounting
- Intro to Criminal Justice
- Drugs in Society
- E-Commerce
- College Algebra

This “jump start” to their college careers is another example of opportunities offered to our students. Such experiences will enable our students to attain and retain the edge in today’s competitive global marketplace.

Seton Hall Project Acceleration

Seton Hall University offers high school students the opportunity to earn college credits for classes taken at the secondary level. Student transcripts read that they have earned credit from Seton Hall, which are recognized at a wide array of universities and colleges.

Both curriculum and instructor must be approved to meet the standards set in place for classes taught for Seton Hall credit. Teachers need to have a Master’s Degree in the content area that they will be teaching, or an alternative such as speaking a native language in a foreign language course.

Students can earn up to twenty-two college credits from Seton Hall University during their high school tenure. Courses include:

AP Biology - Calculus - Chemistry - Computer Science - Intermediate French II - Intermediate Spanish II - Intermediate Spanish for Hispanics

We look forward to the continued growth of our “College Connections” program. We will continue to actively seek out the programs that give our students a competitive edge.

Academic Offerings

The academic program of Passaic County Technical Institute is a comprehensive curriculum that provides students with a thorough grounding in literature, social studies, mathematics and science. Just as any comprehensive high school, the PCTI academic curriculum will prepare the student for the rigors of college studies. More than 60% of the school's graduates go on to two and four-year colleges each year. Many students receive academic scholarships to enable them to continue their education. The following courses comprise the academic curricula:

English I, II, III, IV
English Honors I, II, III, IV
English IV Advanced Placement
Mass Communications
Drama
Creative Writing

Geophysical Science
Environmental Science
Biology
Biology Honors
Chemistry
Chemistry in the Community
Chemistry Honors
Physics
Principles of Technology
Anatomy and Physiology I, II

Physical Education I, II, III, IV
Health I, III, IV
Driver Education
Adaptive Physical Education

HSPA Mathematics
Algebra I, II
Geometry
Geometry Honors
Algebra II/Trig

Algebra II/Trig Honors
Pre-Calculus
Calculus
Statistics

U.S. History I, II
U.S. History I, II Honors
U.S. History I, II Advanced Placement
World History
World History Honors
African-American History
N J History
American Government
Multi-Cultural Studies
Latin-American Studies
Psychology
Sociology
Civics

Spanish I, II, III
Spanish III Advanced Placement
Conversational Spanish I, II
French I, II, III, IV
Japanese
Arabic
Chinese

Advanced Placement, Honors and College Prep

It is the philosophy of the school that all students must be prepared for the challenges of postsecondary education regardless of their career major or future ambitions. All math, science, social studies and English courses are college preparatory. Depending upon academic ability and background, students are placed or test into college prep, honors or AP courses. Increasingly, graduates of PCTI are choosing to continue their education at colleges, universities and technical career centers. Therefore, the curriculum of the school will continue to stress rigorous coursework tailored to prepare students for these challenges.

Academic Offerings

Language Arts

English I

English I is intended to develop the essential skills necessary for mastering grammar, composition, vocabulary, library skills and basic forms of literature. Students will become familiar with the characteristics of non-fiction, fiction, autobiography, biography and poetry. The subject will also include an overview of plot, conflict, characterization and theme along with a focus on literary terminology. The fundamentals of grammar and research skills will be emphasized throughout the year. Stress is also placed upon vocabulary development, critical reading and improvement of writing skills.

English I Honors

The English honors curriculum is designed for the academically motivated ninth grade student who is proficient in language arts. The main goal of the English honors class is to promote challenging activities that foster creative ideas and organizational skills as well as critical discussion and writing. Students are expected to complete supplemental literature requirements, challenging composition assignments, and varied research projects that maximize their abilities.

English II

English II is a full year course designed to develop and enhance the language and literacy skills of second year students. Students will be challenged to master reading, writing, and comprehension skills from previous courses, and to expand upon those proficiencies toward a more sophisticated understanding and use of language. The literary component of the course is genre based and covers poetry, drama, novels, short stories, and nonfiction. A variety of authors from diverse backgrounds and time periods will be examined. The instruction of language arts skills such as the standard use of grammar and mechanics, pronunciation, and vocabulary, as well as such topics as research methods and effective communication skills will be included within each literary unit. This integrated approach will also be utilized to improve writing skills and prepare the student for standardized testing. In this way the significance of literature and the language arts to both the individual and to society as a whole is emphasized throughout the course.

The diverse nature of the English II curriculum presents an opportunity for the educator to integrate cross-curricular activities, and for the student to appreciate the universal importance of the subject matter.

Prerequisite: English I

English II Honors

Honors English II concentrates on correlating advanced critical reading skills with provocative, stimulating and open-ended research investigations. The course is specifically designed for academically superior students who have exhibited exceptional ability in Language Arts studies and who generate independent ideas. Honors English II provides the student with the opportunity to work independently on research projects, which require extensive inquiry and criteria judgment.

Prerequisite: English I

English III

The course provides students with an opportunity to explore American literature through a wide variety of short stories and novels. Students will learn how to focus and correlate information by using various learning strategies that will develop advanced critical reading, writing and thinking skills in preparation for the SAT and HSPA. Research skills, will be fully introduced and all students will be required to do a research project. In addition, students will be introduced to and assessed in activities related to the performing arts core content requirements.

Prerequisite: English II

English III Honors

Honors English III capitalizes on the enthusiasm and capability of the honors students. The course presents an intensive examination of a sampling of American Literature from the Colonial period to the present time. Taking a chronological perspective, the curriculum provides materials, which make connections between literary texts and the philosophical, social, and cultural contexts. Extensive writing assignments focus on critical analysis, independent essays, and literary issues. Each student is expected to submit a major independent research paper of substantial length. In addition, students will participate in activities related to performing arts.

Prerequisite: English II

English IV

English IV is the culmination of Literature/Language arts studies in high school. It is intended to prepare college prep and non-college prep students by honing their Language Arts skills. It prepares students for independent study as well as group and cooperative efforts. The Literature is a chronologically based survey of British writers with some emphasis upon the Greco/Roman basis of Western culture. Students are exposed to British Literature commencing with the Anglo-Saxon Period and terminating with the modern British writers. The course is designed to promote interpretive and critical thinking skills. Additionally, students are required to present an independent research paper using the MLA system of citation. Based upon the research paper, oral reports are presented. The course also provides students with the opportunity to prepare college entrance essays as well as job/education resumes.

Prerequisite: English III

English IV Honors

English IV Honors is designed to expose students to understanding the evolution of great works of literature that have impacted upon and have been major reference points in Western Civilization. The course offers, as a foundation, the study of ancient Greek literature and runs the gamut from a historical perspective to Shakespeare and beyond. Extensive reading and writing assignments focusing on critical analysis of the various genres as well as visual and oral presentations are required. Students will continue to be exposed to performing arts activities.

Prerequisite: English III

English IV Advanced Placement

Advanced placement English IV is a college level course emphasizing sophistication of thought and expression in analyzing imaginative literature. Primarily, an introduction to world literature, it also includes works from British and American traditions. Students will read widely and closely in fiction, poetry and drama in preparation for the AP exam. All students enrolled in the course must take the exam. Those showing proficiency will likely receive college credit. Frequent exposure to AP practice questions; topics and approximately 7 essays per semester will comprise the bulk of the written work for the course. Students will continue to be exposed to performing arts activities.

Prerequisite: English III

Mass Communications

This full year course is designed to provide students with the specific skills and strategies necessary to improve their ability to communicate in various speaking situations. Students will study the basic elements of the communication process, practical and social communication skills. In addition, students are required to plan, prepare and present a variety of speeches including the following: demonstration speech, speech to inform, speech to inspire, speech to persuade, group discussion, debate and oral interpretation.

Creative Writing

This half-year course places emphasis on improving the student's ability to communicate using the written word. Students will explore a wide variety of writing styles and maintain journals of their own writing samples. Students will be required to write dialogue, short stories, and poetry using their own creativity.

Drama

This half-year course introduces students to the history of drama and provides exposure to all aspects of staging a play. Students will create and perform their own dialogue, improve enunciation skills, respond to stage direction and make dramatic presentations. Students contrast drama to real life situations by portraying things such as the job interview, automobile purchase, school situations, etc.

Mathematics

HSPA Mathematics

This course is a remedial, state-mandated course designed to assist students who have scored below proficient on the GEPA or on the March diagnostic test administered to 9th and 10th grade students as well as not having met the necessary individual's skill proficiencies in mathematics as required by state law. The instructional focus of HSPA Mathematics is to expeditiously meet any of the student's skill deficiency as diagnosed by these tests or through regular class evaluation and assessment. It is expected that a student who successfully completes this course will have developed mastery and proficiency as required by the State of New Jersey's Core Curriculum Content Standards in Mathematics.

Algebra 1

This course is designed to provide algebraic concepts set in real-life context. Through the use of verbal modeling, students will be helped to focus on what a problem is asking for. Visual representations of algebraic concepts will contribute to deeper understanding and stronger reasoning skills. Students will be expected to use the language of mathematics with precision. In addition, they will acquire facility in applying algebraic concepts and skills through multiple representations (i.e. graphical, numerical, and analytical.) Exercises are provided to strengthen students' skills and critical thinking. Students will be exposed to the technology of graphing calculators. Geometric concepts will be integrated throughout the course. Topics will include rules of algebra, solving linear equations, graphing linear equations and inequalities, solving systems of linear equations, powers and exponents, quadratic equations, polynomials and factoring and some work with functions and radicals.

Algebra II

This course emphasizes applications of the algebra. In addition to extending work done in Algebra I, manipulative skills are emphasized. Students are encouraged to consider structure and applications. Students are introduced to functional notation. Equation solving techniques are extended to include systems of equations and quadratic equations with irrational and complex roots. Radical, logarithmic, and exponential equations are also solved. Graphing techniques are extended in the two-dimensional plane to include non-linear relations and the number system is extended to include irrational and complex numbers. Students will encounter real-life problem solving throughout the course, and the need for algebra precedes the mechanics; and provides the setting for the practice of algebraic skills. Topics include: linear and quadratic equations and systems; polynomial, exponential and logarithmic functions; matrices and determinants; powers, roots and radicals. Graphing calculations are assumed.

Prerequisite: Algebra I

Geometry

This course is designed so that geometry and algebra reinforce each other through multiple tie-ins. Inductive and deductive reasoning is introduced early. Students progress from informal arguments to more formal presentations of proof. Coordinate and transformational geometry are interwoven. Hands-on activities allow students to discover geometric concepts. The formal study of the principles of logic forms the basis for the deductive development of geometry as a mathematics system. The properties of mathematical systems are studied in detail. Plane and spatial relationships, intuitively studied in earlier grades, are developed as part of a mathematical system. This is accomplished by the application of logic and deductive reasoning to undefined terms, defined terms, postulates, and previously proved theorems. The basic rules of logic for conditional statements are also studied. The core of the geometry program is the traditional Euclidean plane geometry enriched by the addition of space geometry. Algebraic skills are further developed by the application of geometric principles to the solution of numerical exercises. Problem solving is also emphasized. Coordinate geometry techniques and proof are studied to illustrate other geometric mathematical systems. Both synthetic and analytic proof are emphasized.

Pre-Calculus

This course is designed to fill in the students' backgrounds in preparation for Calculus. At least half of the course is the study of trigonometric and circular functions. Other topics included are elementary functions, vectors, sequences and series, polynomial and rational functions, and the concept of limits. Much of the course involves real-world situations in which applications occur, and mathematical models. Pre-calculus is a rigorous study of mathematical theory and applications designed not only to prepare students for Calculus and higher mathematics but for the mathematical proficiencies needed to compete in the 21st century. This course is structured to provide an investigative approach to pre-calculus using appropriate technology as tools. Applications drive the need to develop a toolkit of elementary functions that serve as a bridge between mathematics and the real world it models. The toolkit includes polynomials, exponential, logarithmic, and trigonometric functions. Using toolkit functions to analyze and interpret data and using a graphical approach to problem solving are emphasized. This course draws the students into learning and the real-world examples and applications from many cultures and disciplines will keep them involved and thinking.

Calculus

This is an advanced course in Differential and Integral Calculus and Analytic Geometry. Students will reach an intuitive understanding of the concepts of Calculus. The course introduces students to various aspects of Calculus, including functions, derivatives, limits, and integration.

Statistics

Statistics is a full year course offered to students who have demonstrated superior ability in the math sequence of courses. The purpose of the course is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes: exploratory analysis of data makes use of graphical and numerical techniques to study patterns and departure from patterns. Data must be collected according to a well-developed plan if valid information on a conjecture is to be obtained. Probability is the tool used for anticipating what the distribution of data should look like under a given model. Statistical inference guides the selection of appropriate models. Students will make regular use of appropriate technological tools.

Discrete Mathematics

Discrete mathematics affords many students a new opportunity to experience success and enjoyment in mathematics classes. Students who have been discouraged by the routine aspects of learning mathematics can become excited and challenged by the many intriguing problems that are typical of discrete mathematics. Discrete mathematics can be used to illustrate and emphasize effectively NCTM's four overall curriculum standards for all students. That is, problems in discrete mathematics require that many problem-solving strategies be applied to interesting real-world applications. These strategies are well suited for student collaboration and the development of verbal and written skills and the use of critical thinking and reasoning procedures in working toward a solution. In addition, technology is typically used to gather, process, or analyze the data integral to the problem.

Discrete mathematics includes topics such as sets, functions and relations, matrix algebra, combinatorics and finite probability, graph theory, finite differences and recurrence relations, logic, mathematical induction, algorithmic thinking, Boolean algebra, the mathematics of social choice, linear programming, and number theory. The course could be adopted, year to year, to meet the demographics of the class.

Science

Geophysical Science

This course is an introduction to the body of knowledge contained in the earth and physical sciences, including the process of scientific investigation. Students will study matter and changes in matter, motion and energy, earth sciences, the origin of the universe, natural resources, and the impact of science and technology on the environment.

Environmental Science

Students will study topics including basic ecology, ecosystems, human population, biodiversity, pollution, energy, waste, and sustainability. Through various methods such as gathering information, considering values, and exploring consequences, students will gain the tools necessary for evaluating information about environmental issues and making informed decisions.

Chemistry

This course attempts to provide some of the excitement and pleasure of learning about the ultimate structure of matter and how knowledge of this structure allows us to interpret the wide variety of behavior observed during physical and chemical change. Less stress placed upon memorization of chemical facts, while more emphasis is given to a study of how important chemical ideas have evolved. Students of Chemistry will study the historical theories concerning the makeup of matter, the periodicity of the elements, concepts in chemical bonding, and how and why compounds form.

Chemistry in the Community

This course is designed to enhance science literacy. The course emphasizes chemistry's impact on society. Technological issues are looked at in each unit, which are currently confronting our society. The purpose of this course is to:

- Use chemistry knowledge to think through and make informed decisions about issues involving science, technology, and their immediate environment.
- Develop a lifelong awareness of the potential and limitation of science and technology.

Honors Chemistry

By studying Honors Chemistry you will be able to understand the nature of materials around you and the changes they undergo. An awareness of science as part of your everyday life will be developed, as well as an understanding of how people of various cultures have contributed to the advancement of science and technology. The emphasis is also on rigorous fundamental training in the following: Atomic structure, chemical bonding, reaction kinetics, equilibrium, oxidation-reduction, and acid-base relationships.

Physics

Students will discover how unrelated phenomena can be explained with the help of a few fundamental unifying laws, and how a huge body of unrelated information can become unified. Here are just a few of the areas that will be discussed: Angular momentum, quantum mechanics, relativistic changes in speed, mass, and time, etc.

Anatomy and Physiology

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 the student a selective overview of the human anatomical structure and a brief analysis of human physiological principles. Labs will include slide work, dissection and studies of the human skeleton.

Anatomy and Physiology II

Students examine each human system which regulates the responses between and within other systems. The course exposes students to current bio-medical and social environmental issues to enhance their understanding of health and human body related topics. The course will involve teacher directed presentation of content areas through class lecture, class discussion, student reports, investigations, and class group activities. Laboratory exercises, laboratory exercises will supplement and enhance topics dealing with both system functions (physiology) and system structure (anatomy).

Biology

This is a recommended course for incoming freshmen. Biology means the study of life – a fascination that has occupied the minds of individuals for centuries. In this course, important biological questions and concepts are examined that include the origin and evolution of life, genetic continuity, principles of heredity, the relationships between structure and function of living organisms, biochemical processes, behavior, and the preservation of life in changing ecosystems.

Honors Biology

Students will be provided with the basic understanding of the application of biological concepts. The course will bring an awareness of the many forms of life and an appreciation of our relation to and dependence upon nature. Past and present biological science will be presented as insight into future problems. The correct use of biological laboratory apparatus and techniques will be learned. Laboratory experience will compliment each major area of study and will include investigations current technology.

Principles of Technology

Principles of Technology is a course designed to examine the specialized sciences and to relate them to everyday living from a basic physics perspective. A major effort is made to train students in the scientific method and logical thinking, with an awareness of experimentation as a source of knowledge. The basic knowledge in this course will provide the student with the necessary fundamentals for further study.

Social Studies

World History

This course explores world history from the early pre-historic people and locations through issues faced in our modern world. It is designed to broaden the students' overall awareness of world history, geography, and world cultures. Students will examine the evolution of politics, economics, and culture as they pertain to the development of our modern world. World History draws attention to the development of western democratic institutions, European expansion throughout the world, and the impact of non-western societies such as Africa and Asia. Coursework utilizes an interdisciplinary approach that addresses the state core content standards in social studies and language arts. World History is a required 9th grade course.

World History Honors

This course is a comprehensive study of the world history and human interaction from early pre-historic people and places, through the issues faced in our modern world. Students will analyze world history, geography, and cultures through in-depth analyses of the evolution of our modern world and its political and economic framework. Students are expected to read related literary selections, evaluate primary resources via document-based questions, and engage in critical analyses and cultural comparisons. Research and writing skills are emphasized with an interdisciplinary approach that addresses the state core content standards in social studies and language arts.

United States History I

United States History I is designed to analyze American history from the age of exploration up to and including the Civil War and Reconstruction of the South. This includes examining the major events, personalities, places and issues that helped to shape our nation. In doing so students will examine the social, political, geographical, cultural and economic characteristics of the U.S. Students will develop a deeper understanding of how our nation functions by studying the foundations of democratic principles and civic responsibilities. As well, students will evaluate current events in order to develop a connection from the past to the present. Language arts skills are continually developed through an interdisciplinary approach. Instruction includes the use of maps, globes, atlases, works of art, and audio-visual aids. This course meets all state requirements and addresses the core curriculum content standards in social studies, language arts, and the visual and performing arts. This is a required 11th grade course.

United States History I Honors

This course goes beyond the comprehensive study of American history from the age of exploration to 1865 and encourages students to think more critically reflectively. US History I honors examines the major events, personalities, places and issues that helped to shape our nation. Students will examine the social, political, geographical, cultural and economic characteristics of the U.S. through related literary selections, works of art, and document based questions. Students are expected to read related literary selections, evaluate documents, and engage in critical analyses and cultural comparisons. Research and writing skills are emphasized with an interdisciplinary approach that addresses the state core content standards in social studies, language arts, and the visual and performing arts.

United States History II

United States History II continues the study of United States history from 1861 to the present. This course is designed to challenge the students to think both critically and reflectively. In doing so, the students will examine the diverse and ever changing political, geographical, social and economic characteristics of the U.S. Major themes such as immigration, World War II, the New Deal, popular culture, the Vietnam War, and the Civil Rights movement will be closely examined. Students will evaluate current events in order to help develop a connection from the past to the present. Democratic principles and civic responsibilities are further emphasized in order to prepare students to be active and responsible citizens. The use of maps, works of art, and other visual aids will be used to supplement the course outline. Research and writing skills are emphasized with an interdisciplinary approach that addresses the state core content standards in social studies, language arts, and the visual and performing arts.

Prerequisite: United States History I

United States History II Honors

This course is a comprehensive study of United States History from 1861 to the present. Emphasis is placed on American history's most salient socioeconomic, political, historical, geographical and cultural aspects. The course goes beyond the basic course of study and includes the development of critical thinking and successful research and writing skills. Students explore United States history through position papers, document based questions, and the synthesis of relevant information into practical applications. This course requires students to work individually and collaboratively in order to analyze and interpret historical persons, events, and documents and assess the validity of various historical propositions. Students are expected to read related literary selections, evaluate primary and secondary source documents, and engage in critical analyses and cultural comparisons. Research and writing skills are highlighted through an interdisciplinary approach that addresses the state core content standards in social studies, language arts, and the visual and performing arts.

Prerequisite: United States History I

Pre-Advanced Placement United States History I

The AP program in United States History is an alternative to the United States History I course required in the 11th grade. This course goes beyond basic coursework in United States History I and helps prepare students for the Advanced Placement exam. In doing so, students are challenged to refine their critical thinking skills through the evaluation of historical events, persons, and historical propositions. Instruction includes role-playing, problem solving, and application of the subject matter to current events. Analytic skills, historical research and interpretation, and language arts skills are developed through debate, persuasive essays, and document based questions. Students analyze primary and secondary source documents and determine their reliability and importance. This course is equivalent to an introductory college level course. Therefore, individual initiative and self-motivation are important. Students are required to commit to a two-year course of study including AP US History II in their senior year. Supervisor approval is required for enrollment in this course and is based on proficiency in the subject matter, test scores, writing sample(s), and teacher recommendation(s).

Advanced Placement United States History II

All coursework in AP US History II is predicated upon a thorough understanding of academic material taught in AP US History I. Building upon that foundation, students are further prepared for the Advanced Placement exam. Students are challenged to surpass mere recognition of historical facts and concepts. This course is designed to further refine critical thinking skills and students will analyze, synthesize and evaluate American History from 1861 to the present. Historical events, persons, and propositions are closely scrutinized as students formulate their own opinions on the subjects. Analytical skills, historical research and interpretation, and language arts skills are developed through debate, role-playing, problem solving, persuasive essays, and document based questions. Students will also analyze primary and secondary source documents and determine their reliability and importance. This course is equivalent to an introductory college level course. Therefore, individual initiative and self-motivation are important. AP US History I is a pre-requisite for this course. Supervisor approval is required for enrollment in this course. It is expected that students will take the AP US History Exam at the end of the year.

Prerequisite: United States History I

American Government

American Government is a half-year elective course designed to increase the students' knowledge of the political, economic and social structures and processes of United States government. Students will further develop an understanding of their responsibilities and duties as citizens of the United States. In addition, students will examine the historical and economic foundations, underlying values, and principles upon which the American system of representative democracy is based. Students will study the structure of the national, state and local governments. In addition, the students' analytical and conceptual skills will be enhanced with supplemental readings and audio-visual presentations. This course will also explore the forces that impact U.S. political development and world politics.

New Jersey History

NJ History is a single semester elective available to 10th, 11th, or 12th grade students. This course focuses on increasing the students' awareness of the tremendously unique characteristics and diversity of the State of NJ. Students will better understand the political, social, and economic characteristics of NJ. As well, there is an emphasis on the state's historical development, geography, and the contemporary issues faced by NJ today. Famous people, places and events are highlighted as they pertain to the development of this state and the United States.

Civics

Civics is an elective designed to enhance the students' awareness of the rights and responsibilities of citizenship, the framework and function of our government, and the U.S. political system. Students will better understand the foundations of American government, its system of representative democracy, the branches and levels of government, the American economy, and our legal system. The relationship of American politics and government to world affairs is also addressed through the evaluation of current events. Writing and debating skills are regularly incorporated into the course work. This course is required of all Criminal Justice students during their sophomore year.

Latin American Studies

Latin American Studies is an elective available to 10th, 11th, and 12th grade students. This course aims to increase the student's understanding of Latin America through a comprehensive analysis of its historic, socioeconomic, geographic, cultural and political characteristics. Students will explore the incredible diversity of Latin America and develop a stronger appreciation and respect for all. In addition, students will explore how geography influences socioeconomic development, culture, and history. This course also evaluates the impact of Latin American and Caribbean immigrants on the United States. Students will gather and analyze data through available technology, as well as evaluate current events of the region through the media. Instruction includes student research, presentations, guided discussions and cooperative learning activities.

African American History

African-American History is an elective available to 10th, 11th, and 12th grade students. This course is designed to broaden the students' awareness of the rich history of the African-American peoples. African-American History begins with an examination of early African civilizations prior to the Commercial revolution of the 15th century, the impact of slave trading, the triangular route for exploration, and colonialization. Next, students examine the African American contributions in the military, government, and industry. The civil rights movement is analyzed, as are the numerous cultural contributions of African Americans. In addition to traditional instructional methods, course work in this program includes the evaluation of related art, literature and music.

Principles of Sociology

This course is a single semester elective available to 11th and 12th grade students. It is designed to enhance the students' understanding and appreciation of the foundations and basic principles of sociology. There is an emphasis on the formation and diversity of American culture, its complex value system, the interrelationship of majority and minority groups, and the evaluation of social institutions and problems. Students are encouraged to actively participate and many special projects are incorporated in the course work. For example, students are required to conduct surveys and social observations, create visual displays and commercial advertisements, and complete value clarifying activities and research projects.

Sociology and the Family

This course is a single semester elective available to 11th and 12th grade students. During this program students will further develop an attitude of social responsibility. In doing so, students will gain a better understanding and appreciation of the social relations, institutions and dynamics inherent in our society. Instruction includes analyzing the stages of life, the American social class structure, the importance of family, parenting responsibilities, successful budgeting, the struggles and achievements of minority groups, and social responsibilities. This involves understanding and evaluating marriage, parenting, family, and childrearing responsibilities. Active student participation is required as course work includes a variety of individual and group projects.

World Language

Spanish I

This introductory course makes use of the target language based on everyday experiences, and experiences in everyday life of the Spanish culture. Basic grammar and vocabulary are stressed, as conversation is encouraged. Opportunities are provided for students to hone their grammatical and conversational skills through interpersonal, interpretive, and presentational formats. Through reading selections and classroom discussion, the student becomes familiarized with the culture and civilization of the Spanish-speaking world.

Spanish II

The second year of Spanish continues to introduce the student to the basic fundamentals of the language. Reading materials, videos, compact disks, and computer software programs will acquaint the student with the customs, culture and various societal issues that confront the Spanish speaking countries.

Prerequisite: Spanish I

Spanish III

Students in their third year of Spanish instruction are exposed to a combination of vocabulary building, advanced grammar principles, conversation and writing practice. Reading and listening comprehension exercises get special attention. An introduction to basic units focusing on culture, geography and history help prepare the student for further study.

Prerequisite: Spanish II

Spanish Conversation & Composition I

This is a course designed to provide students who have mastered the essentials of Spanish pronunciation and grammar. Students in this course will increase their active control of the language to the point where they can function independently in a native Spanish-speaking environment. Culturally authentic literature and other written materials will be presented for analysis, comparisons and review.

Spanish Conversation & Composition II

In this course, students continue to strengthen their conversational, grammatical, and pronunciation of the Castilian Spanish language. Materials used to achieve this goal include; novels, mixed media: such as newspaper articles, magazines, politics, and the inter-net. Students build upon knowledge developed from Spanish Conversation & Composition I. Grammatical structure will be expanded through conversational drills, substitution drills, sentence reorganization and usage of idiomatic expressions.

Spanish Advanced Placement

Advanced Placement Spanish emphasizes the overall use of Spanish grammar presented and mastered in Conversational Spanish I & II, with an expansion of vocabulary and idiomatic expressions. Special emphasis is placed on the development of conversational skills as well as critical thinking and expression in the target language.

French I

Students selecting the first year course in French are introduced to the fundamentals of the language and the culture of France. The student has the opportunity to express himself, while building fluency in the language through daily conversation. Opportunities are provided for speaking in the interpersonal, interpretive and presentational formats in accordance with the content standards. Basic grammar and vocabulary are stressed.

French II

The second year course in French begins with a review of French I materials. Students then add to their vocabulary, improve upon their communication skills and increase their knowledge and understanding of the people and customs of France. Instruction relates to practices and products of the target language and culture.

Prerequisite: French I

French III

Students in their third year of French are exposed to a combination of vocabulary building, advanced grammar, composition work, and conversational practice. Cultural readings provide further reinforcement of the target language and expand students' understanding of the Francophone world.

Prerequisite: French II

French IV

French IV is a full year elective that expands on the grammar and vocabulary acquired in French I, II and III. The course also serves as a conduit for discussion, reading, writing, vocabulary/grammar/literature related exercises, oral-aural communication, critical thinking exercises and cooperative activities.

Prerequisite: French III

Japanese

In a partnership with William Paterson University, PCTI students are introduced to the fundamentals of the language and culture of Japan. Students receive six college credits in this culturally enriching experience.

Arabic I

This introductory course makes use of the target language based on everyday experiences, and experiences in everyday life of the Arabic culture. Basic grammar and vocabulary are stressed, as conversation is encouraged. Opportunities are provided for students to hone their grammatical and conversational skills through interpersonal, interpretive, and presentational formats. Through reading selections and classroom discussion, the student becomes familiarized with the culture and civilization of the Arabic-speaking world.

Arabic II

The second year of Arabic continues to introduce the student to the basic fundamentals of the language. Reading materials, videos, compact disks, and computer software programs will acquaint the student with the customs, culture and various societal issues that confront the Arabic speaking countries.

Prerequisite: Arabic I

Chinese I

This introductory course makes use of the target language based on everyday experiences, and experiences in everyday life of the Chinese culture. Basic grammar and vocabulary are stressed, as conversation is encouraged. Opportunities are provided for students to hone their grammatical and conversational skills through interpersonal, interpretive, and presentational formats. Through reading selections and classroom discussion, the student becomes familiarized with the culture and civilization of the Chinese-speaking world.

Chinese II

The second year of Chinese continues to introduce the student to the basic fundamentals of the language. Reading materials, videos, compact disks, and computer software programs will acquaint the student with the customs, culture and various societal issues that confront the Chinese speaking countries.

Prerequisite: Chinese I

Physical Education / Health

Physical Education

In the State of New Jersey as a requirement for high school graduation, physical education students receive instruction over a four-year period. Project Adventure, Weight Training, Swimming, Dance, Dance Revolution (DDR), Fitness, Power Walking, Team and Individual sports are among the areas taught played/participated. DDR is a high impact aerobic workout; positioning themselves on electronic mats, students follow an aerobic work out and earn points and placement in various categories. Beginning the 2006/2007 School Year, seniors will have an opportunity to become certified in both CPR and Lifeguarding with their Physical Education class.

Health I

This freshman level course covers the state mandated 10 hours of instruction in drugs, tobacco and alcohol as well as additional health related topics. Included in the one marking period course are nutrition, which includes healthy eating habits and effects on the body regarding proper nutrition, the reproductive system, which includes anatomy of the male and female reproductive systems, sexually transmitted infections (STI's), the diagnosis and health effects, birth control responsibility and first aid. Responsibilities of raising a child are emphasized in "Baby Think It Over" as students care for an electronic baby throughout a 24-hour period.

Health II

This course is offered to the sophomore class and focuses solely on driver education. Students will be able to explain who must have a driver's license, the types of licenses, how to obtain a learner's permit and the procedure for validating a license. The provisional license and rules regarding it are also taught. Students are provided the procedure for registering a vehicle, vehicle inspection and will understand the types of insurance required by the State of New Jersey. Included in this one marking period course are traffic control devices which include the position, shape and colors of traffic lights, pavement markings, basic driving safety, driving rules and regulations, defensive driving, driving emergencies (how to protect themselves during a collision), how to report an accident and substance abuse in relation to driving. The course concludes with the administration of New Jersey Motor Vehicle written test.

Health III

This junior level one marking period course emphasizes a variety of mental and physical health issues. Different personality types as well as mental health issues are taught. Drugs and alcohol are reiterated following the intensity in Health 9. Reproduction, pregnancy, childbirth, birth control and STI's are taught more in depth. At the junior level "Baby Think It Over", types of doctors, health services and medical insurance are emphasized and made available to students.

Health IV

This one marking period senior level course emphasizes a healthy life after high school. Topics include consumer health, birth control, relationships, dating, marriage/divorce. Seniors are given a project, which includes a wedding book as related to relationships, dating and marriage. Healthy relationships and abusive relationships are covered in open discussions. Verbal and physical abuse in relationships, signs of abuse and the mental effects are explained. A healthy marriage and the emotional effects on divorce are discussed in detail. Health effects of birth control and raising children are taught and discussed.

ROTC

The NJROTC program goals are to provide an opportunity for secondary school students to learn about the basic elements and requirements for national security and their personal obligations as American citizens to contribute toward national security. The NJROTC has the following basic objectives:

- Promote patriotism
- Develop informed and responsible citizens
- Promote habits of orderliness and precision, and develop respect for constituted authority
- Develop a high degree of personal honor, self-reliance, individual discipline and leadership
- Promote an understanding of the basic elements and requirements for national security
- Develop respect for and an understanding of the need for constituted authority in a democratic society
- Develop an interest in the military service as a possible career

Vocational Offerings

School of Applied Technology

School of Automotive Technology

School of Business

School of Communications

School of Construction Technology

School of Cosmetology

School of Culinary Arts

School of Education/Human Services/Child Care

School of Pre-Engineering

School of Performing Arts

School of Service Careers

Criminal Justice/Public Safety, Landscape Design

Academy of Information Technology

Academy of Medical Arts

School of Applied Technology

Electronics

Areas of study in electronics include basic electronic circuits, electronic instrumentation, digital computer circuits, television, audio, radio, communications and industrial electronics. The program provides a firm foundation which will allow a student to continue to work toward a professional career as an electronics technician or engineer. Most students who successfully complete this program continue their education at four-year colleges or technical schools. Students must take algebra I, geometry, and algebra II. A fourth year of mathematics, specifically pre-calculus, is highly recommended. Students also take geophysical science and principles of technology or physics. A third year of science, specifically chemistry, may be required as the student progresses through the program. Students in this program who qualify may be able to bank college credits through a Tech Prep articulation agreement with area colleges. Prior to graduation, students take an industry validated examination in electronics to certify their competency in this field. Cooperative work experiences leading to apprenticeship opportunities are available in the senior year. The electronics program is a rigorous program of studies which requires mathematical and mechanical aptitude.

Drafting

This program covers mechanical drafting, architectural drafting and computer-assisted drafting (CAD) and involves making precise instrument-aided drawings that show how to construct machines, buildings and highways. Drafters must be able to function as part of an engineering team. The curriculum includes all facets of drawing, including the preparation of reports, charts and data sheets. Students will learn to read and develop blueprints and architectural renderings and models. Students in this program must take algebra, geometry and algebra II. A fourth year of mathematics, specifically pre-calculus, is highly recommended. Additionally, students must take geophysical science or biology and principles of technology or physics. Prior to graduation, students take an industry validated examination in drafting to certify their competency in this field. Cooperative work experiences leading to apprenticeship opportunities are available in the senior year. This is a rigorous program which requires strong mechanical and mathematical aptitude.

The Drafting Program of Passaic County Technical Institute is certified by the American Design Drafting Association.

Manufacturing Technology

Precision metalworking combines sheet metal, computer integrated manufacturing techniques and robotics. Areas of study include fundamentals of pattern design, fabrication, and training in the use of a variety of machines including the lathe, milling machine, drill press, surface grinder and the numerically-controlled milling machine. Emphasis is placed on bench work, precision and measuring instruments, methods of machining, blueprint reading, machine parts layout and quality control. Students who select this major will take basic algebra, geometry, algebra II, geophysical science and applied physics as part of their overall program of studies. Manual dexterity, mechanical aptitude, the ability to follow precise directions and spatial perception are required for success in this field. Federally-assisted apprenticeships are available for students who are interested.

School of Automotive Technology

Engine Mechanics

While automotive technicians still get their hands dirty, the increased use of highly technological, diagnostic equipment has required that engine mechanics now have a greater knowledge and sophistication of the workings of various types of automobiles. In this program, the student will learn to perform a variety of automotive repairs by using the latest, state-of-the-art diagnostic equipment and tools. Students will be exposed to technical manuals that require grade-level reading skills. Additionally, they will be required to read and interpret diagrams and technical schematics. A challenging curriculum prepares students to master skills required to pass Automotive Service Excellence (ASE) certification examinations. Students who major in engine mechanics will take basic algebra, geometry, algebra II, geophysical science and applied physics as part of their overall program of studies. They will utilize computer hardware and various software programs. Manual dexterity and

mechanical aptitude are required for success in this trade. Automotive technicians often work independently or for a large shop. Federally-registered apprenticeships are available in this field through the School-to-Careers Office and the school maintains cooperative work experiences with several area automotive dealerships.

Collision Repair Technology

This program gives the student exposure to all types of specialized learning experiences in repairing damaged automobiles. Areas of study include computerized metal and frame straightening, smoothing concealment, painting and body component replacement. Students learn to estimate, prepare job orders and manage shop operations. Students who major in Collision Repair Technology will take basic algebra, geometry, algebra II, geophysical science and applied physics. Additionally, grade-level reading of highly technical diagnostic manuals is a requirement for success in this program and on the job. Students must have mechanical ability, physical strength, stamina and skill with hand and power tools. Increasingly, collision repair specialists are required to understand and work with computerized equipment. The Collision Repair Technology program prepares students to master skills necessary for Auto Service Excellence (ASE) certification.

School of Business

The student majoring in business applications may specialize in any of three areas. These include Accounting, Office Systems Technology or the Academy of Finance.

In addition to accounting, students in this program will have an opportunity to study the following:

Document Processing	Word Processing	Computer Literacy
Marketing	International Business	Ethics
Internship/Job Preparation	Entrepreneurship	Business Law

The students will also be able to participate in the International Business Practice Firm (Virtual Enterprise) and Job Shadowing.

Accounting

Students who major in accounting will acquire a basic understanding of manual and automated accounting principles, concepts and procedures. This program offers students an overall picture of the total process of a business system. Students learn to analyze and record business transactions and prepare financial statements for businesses organized as proprietorships, partnerships or corporations. Required courses include algebra, geometry and algebra II. A fourth year of mathematics is highly recommended for all accounting majors. Additionally, geophysical science or biology and chemistry or applied chemistry are required. Prior to graduation, students take a validated examination in accounting principles to certify competency in this field. Most students who major in accounting continue their formal education at traditional four-year colleges. Prospective candidates for this program of study must have a strong mathematical aptitude.

Office Systems Technology

With rapid advancements in technology changing the business office almost daily, the OST program seeks to introduce students to the use of and develop proficiency in state-of-the-art business equipment and facilities. The curriculum includes the operation of microcomputer-based word processing systems using some of the most up-to-date hardware and software available. Students should have a keyboarding proficiency of at least 30 words per minute. Desktop publishing is covered including the elements of page layout and design as well as integrated office systems. Students in this program take algebra, geometry, algebra II, geophysical science or biology and chemistry or applied chemistry. Prior to graduation, students take an industry validated examination in office systems to certify competency in this field. Additionally, students who qualify may be able to bank college credits in business / OST under a Tech Prep articulation agreement with Passaic County Community College.

The Academy of Finance

Established in the fall of 1998, the Academy of Finance (AOF) is a three-year program of studies in finance to which students must apply for admission. The program is intended for students who wish to pursue a career in business or finance. Students accepted into the program generally continue their education at the college level. Students who apply for admission must have a minimum of a B average, the recommendation of their guidance counselor and interview with the program director.

The Academy is sponsored by the National Academy Foundation, a not-for-profit educational organization supported by corporate sponsorship. Students accepted into the Academy are required to take the following courses in addition to a full program of college-preparatory coursework:

Strategies for Success	Introduction to Business	Economics and Finance
Computer Literacy	Business Law	College Accounting I
Banking and Credit	Securities Operations	Accounting II

A Course in Finance on the campus of a local college

Real World Work Experience and College Credits

All Academy students are required to participate in a paid summer internship arranged by the school. As part of the AOF, students may take advantage of internship possibilities at a branch of the Columbia Bank located in the lobby of the school. This is an authentic, working bank staffed by banking professionals and AOF students. In addition, all AOF students are enrolled in a bona fide college business course for which students receive three transferable college credits. The costs of tuition and textbooks for this course are borne by corporate sponsorship and grant funding.

School of Communications

Advertising / Art Design

This program prepares individuals for entry-level employment as layout artists, advertising specialists, illustrators, and copy center workers. The curriculum includes illustration skills with various artistic media and methods, design theory, layout terminology, and desktop publishing and design using industry-leading software. All skills are developed with a strong foundation and understanding of balance and proportion. Students are provided hands on experience with illustration techniques, self-promotional materials such as business cards, brochures, newsletters and magazine layouts. Students in this program should have an above average comprehension in mathematics as well as language Arts. Artistic ability, imagination, time management skills and a capacity to visualize ideas on paper are important qualifications for success in this program.

Graphic Arts

Graphic Arts is a very important part of our free enterprise system, providing a demand for career opportunities in the creative, technical, and skilled labor areas of the field. The graphic arts program is a four-year course of study designed to provide the students with the skills and knowledge of all areas of the graphic arts and printing industry from design to the printed product. Students in level I will be able to know the history of printing, art and copy preparation, Introduction to Photoshop CS, electronic and digital imaging, introduction to keyboarding. The program is designed to provide the students with general knowledge of the skills needed to be successful in the graphic arts and printing industry.

Students in level II will be exposed to job application skills, measurement, bindery/finishing, Photoshop CS, and keyboarding skills. The program is designed to provide the students with general knowledge of the skills needed to be successful in the graphic arts and printing industry.

Students in level III will be exposed to paper and cutting procedures, digital cameras, color copiers, printers, scanners, and keyboarding techniques. The program is designed to provide the students with general knowledge of the skills needed to be successful in the graphic arts and printing industry.

Students in level IV will be exposed to basic offset press techniques, advanced keyboarding, advanced level of Photoshop CS, senior activities which will demonstrate a high degree of knowledge in the graphic arts field. Print-Ed testing will be offered to the highest achievers. The program is designed to provide the students with general knowledge of the skills needed to be successful in the graphic arts and printing industry. A strong emphasis on keyboarding and Photoshop software will be part of all levels. Adobe In-Design will also be introduced and covered in Graphic Arts.

It is advised that students in this program take algebra, geometry, algebra II, geophysical science or biology and chemistry or applied chemistry.

Students interested in this program should be creative, possess good typing skills, manual dexterity and basic mathematics skills.

Television Production

Students who major in television production are provided with enough hands on experiences to qualify them for entry-level employment in this exciting and expanding career. Behind-the-camera opportunities are provided in staging, production, directing, lighting, taping, video/audio editing and other technical support areas. Students are exposed to the fundamentals as far as connectivity and tools of the trade. Students who choose this exciting field should be prepared to participate in News-broadcasts. Keeping broadcasting in mind, students should have a strong writing background. Students will be expected to compose journalistic type articles that will be broadcast to viewers.

Students will be exposed to AVID technology, as well as some of the latest technology involved in taping and Video Production. Students who major in television production are advised to take algebra I, geometry, algebra II, geophysical science or biology and principles of technology or physics. Cooperative work experiences leading to apprenticeship opportunities are available in the senior year. Students who wish to major in this program must be creative, have a good command of the language and be able to work as part of a team.

School of Construction Technology

Heating, Ventilation, Air Conditioning & Refrigeration

In this program students develop the skills necessary to construct, install, repair and maintain heating, ventilation, air conditioning and refrigeration systems. Students will learn basic residential and commercial system design, layout, installation and repair. This includes pipefitting, installation and repair of compressors and electrical motors, basic wiring, the use of electrical schematics, sheet metal fabrication, and ductwork installation. Students will learn to use hand, specialty and power tools and equipment. As well, students will gain an understanding of construction building codes and OSHA job safety guidelines, electrical theory and wiring, the laws of heat transfer and thermodynamics, the refrigeration cycle, OHMS law, electrical theory and the functions of related systems and components. State-of-the-art computerized training software programs and industrial control trainers are utilized to provide high-tech and hands-on learning experiences. Students in this program take the same rigorous coursework required in an academic high school, including but not limited to algebra I, geometry, algebra II, geophysical science, chemistry and principles of technology or physics. Prior to graduation, students take an industry examination to certify their competency in this field. The school maintains a positive and beneficial relationship with the Construction Industry Advancement Program as well as many local unions. Cooperative work experiences and pre-apprenticeship application, testing and training opportunities are available in the senior year. Prospective students should possess mechanical abilities and have an aptitude for science, math, and problem solving.

Electric: Residential & Industrial

This program prepares individuals for careers as industrial and/or residential electricians. Students learn to install, repair and maintain electrical equipment and systems such as motors, transformers, residential and commercial wiring, switches, and alarm systems. The curriculum includes electrical theory, installation of electrical devices, circuitry, trouble-shooting, voltage, familiarity with local and national electrical codes, and estimating materials and labor costs. Students in this program take the same rigorous coursework required in an academic high school, including algebra I, geometry, algebra II, geophysical science, chemistry and principles of technology or physics. Prior to graduation, students take an industry-validated examination in electricity to certify their competency in this field. The school maintains a positive and beneficial relationship with the Construction Industry Advancement Program as well as many local unions such as IBEW Local 164. Cooperative work experiences and pre-apprenticeship application, testing and training opportunities are available in the senior year. Prospective students should possess mechanical abilities and have an aptitude for science, math, and problem solving.

Plumbing

Plumbers and pipe-fitters install and repair pipe systems, plumbing fixtures, appliances and heating units that carry water, steam, air, or other gasses or liquids. The curriculum includes the use of hand, power and specialty tools and equipment. Students learn pipe threading and caulking procedures, soldering techniques, plumbing systems, related welding, isometric drawings and blueprints, comprehensive plumbing theory, installation procedures and familiarity with local and national plumbing codes. Students in this program take the same rigorous coursework required in an academic high school, including algebra I, geometry, algebra II, geophysical science, chemistry and principles of technology or physics. Prior to graduation, students take an industry-validated examination in plumbing to certify their competency in this field. The school maintains a positive and beneficial relationship with the Construction Industry Advancement Program as well as many local unions. Cooperative work experiences and pre-apprenticeship application, testing and training opportunities are available in the senior year. Prospective students should possess mechanical abilities and have an aptitude for science, math, and problem solving.

Carpentry

This program provides the prospective carpenter with the knowledge and skills necessary for entry-level employment. The proper use of hand and power tools is stressed. Advanced topics include framing, layout, fabrication and structural repair. Related training is offered in drafting and blueprint reading, related welding, materials and job estimating and construction safety practices. Life size projects are constructed to provide realistic, hands-on experiences. Students in this program take the same rigorous coursework required in an academic high school, including algebra I, geometry, algebra II, geophysical science, chemistry and principles of technology or physics. Prior to graduation, students take an industry-validated examination in carpentry to certify their competency in this field. The school maintains a positive and beneficial relationship with the Construction Industry Advancement Program as well as

many local unions. Cooperative work experiences and pre-apprenticeship application, testing and training opportunities are available in the senior year. Prospective students should possess mechanical abilities and have an aptitude for science, math, and problem solving. As well, students in this program should enjoy working outdoors and as a member of a team.

Welding

The welding curriculum is based on requirements for the American Welding Society entry-level welder certification program. Students achieve proficiency in a wide variety of welding processes, metal forming and fabrication, and related skills. Safety and health, electrical principles, math and measurement, manual welding and cutting processes, high-tech computerized plasma cutting systems, weld joint design, weld inspection and blueprint reading are all taught to certification standards. Students will develop their skills in this field by producing student designed shop projects and a variety of required workmanship qualification projects. Students in this program take the same rigorous coursework required in an academic high school, including algebra I, geometry, algebra II, geophysical science, chemistry and principles of technology or physics. Prior to graduation, students take the American Welding Society entry-level welder examination to certify their competency in this field. The school maintains a positive and beneficial relationship with the American Welding Society, Construction Industry Advancement Program as well as many local unions. Cooperative work experiences and pre-apprenticeship application, testing and training opportunities are available in the senior year. Prospective students should possess mechanical abilities and have an aptitude for science, math, and problem solving. As well, students in this program should enjoy working outdoors and as a member of a team.

Building Maintenance

This course provides the student with a comprehensive program that includes hands-on use of equipment and materials needed to maintain residential and/or commercial buildings. Instruction includes a variety of large and small-scale project based and service-learning activities. These projects utilize the relevant hand and power tools and skills of the trade. Emphasis is placed on job safety and general facility maintenance and home improvements including, but not limited to, light carpentry, painting, wallpapering, sheetrock and spackling, roofing and siding, as well as recycling and handling of recycling materials. Masonry, brick, stone, and concrete work are also introduced to the students in the form of small projects, minor repairs, care and maintenance. Shipping and receiving responsibilities including inventory control, stock and delivery are also addressed. Students in this program take the same rigorous coursework required in an academic high school. Prior to graduation, students take an industry-validated examination to certify their competency in this field. The school maintains a positive and beneficial relationship with the Construction Industry Advancement Program as well as many local unions. Cooperative work experiences are available in the senior year. Prospective students should possess basic mechanical abilities and enjoy working as a member of a team.

School of Cosmetology

Cosmetology

This program includes classroom and practical learning experiences in the care and beautification of hair, complexion and hands. Areas of study include facial massage, hairstyling, coloring, relevant biological sciences, hygiene and salon management. Students will take basic algebra, geometry and concepts of algebra II, biology and applied chemistry. In the spring of the senior year, all cosmetology students must take a state licensing examination. This exam consists of a written test, an oral component and a practical in which applicants demonstrate their ability to provide cosmetological services. In 1996, 1997, and 1998, 100 percent of all program participants passed the state certifying examination. The program requires 1,200 hours of classroom and hands-on application. Individuals who desire to become cosmetologists must have finger dexterity, a sense of form and artistry and the physical stamina to stand for long periods of time. They should enjoy dealing with the public and following a customer's instructions.

Manicuring

For students interested in the field who do not wish to cut hair, the school offers a program in manicure studies. This program requires 400 hours of classroom and practical application. Students are required to pass a state examination for licensure.

School of Criminal Justice/Public Safety

Criminal Justice/ Public Safety

Students who wish to major in criminal justice / public safety must be serious of purpose and dedicated to the service of the community. This program includes the study of crime scene investigation techniques, operational report writing, individual rights, state and local laws, the criminal justice system, methods of investigation, fire science, interrogation and questioning strategies, and much more. Character, integrity and maturity are emphasized throughout the course. Instruction includes both theoretical and practical/hands-on strategies. Project based and service-learning activities are included. The school maintains positive and beneficial relationships with numerous law enforcement agencies including, but not limited to the Passaic County Sheriff's Department, the NJ State Police, The Port Authority of NY and NJ, the Passaic County Police Academy, the Wayne Fire Department, the Paterson Police Department, the Passaic County Superior Court and Administrative Office of the Courts, and many more. All students in the program have the opportunity to earn six college credits while at PCTI their senior year. This is accomplished through Tech Prep articulation agreements with area colleges. Further, all students have the opportunity to earn an American Heart Association First Responder CPR/AED/First Aid Certification and an APCO Telecommunicator/ Dispatch Certification. Prior to graduation, students take an industry-validated examination to certify their competency in Criminal Justice/Public Safety.

Students are required to complete the same rigorous coursework required in an academic high school, including but not limited to algebra I, geometry, algebra II, biology, chemistry, Principles of technology or anatomy and physiology, and civics. Prospective students must maintain a good moral character, positive attitude, and enjoy working as part of a team.

School of Culinary Arts

Culinary Arts

The food service program offers students training in food preparation, baking, table service, restaurant management, nutrition, sanitation, safety and the use of commercial equipment. Opportunities for those seeking careers as executive chefs, cooks, station cooks, waiters, matre'ds and restaurant hosts are abundant. Students are afforded classroom study as well as practical experience in PCTI's upscale restaurant, Chez Technique. They learn about foods, wines and cultures of their country of origin. Students in the culinary arts program take basic algebra, geometry, algebra II, environmental science or biology and chemistry or applied chemistry. Tech prep arrangements with The Culinary Institute of America, Johnson and Wales and The Hudson County Community College Institute of Culinary Arts allow the serious student an opportunity to earn college credits while still in high school. Prospective students should have sales ability, a presentable appearance and like working with people.

School of Education /Child Development

The Childcare program prepares students to work in various childcare positions such as daycare aide, home daycare provider and nursery school aide. In this program, students combine theory in safety, nutrition, child development, discipline, learning theory and facility planning with practical experience working with children in a daycare setting. Students in the childcare program take basic algebra, geometry, algebra II, environmental science or biology, chemistry or applied chemistry, psychology and sociology. Students will learn to plan, prepare and teach lessons to young children as well as assist a daycare provider in the operation of a center. Since a large part of a young child's learning occurs through play, students in the childcare program frequently practice playing with children while teaching important concepts.

Seniors in this program take college courses through the Passaic County Community College and they are eligible to earn their Child Development Associate Credential (CDA). In addition, students will have an opportunity to participate in both internships and externships. Anyone interested in a career in teaching, particularly at the elementary level, should give serious consideration to majoring in this program.

School of Landscape Design

The Landscape Design / Horticulture program prepares students for entry-level and self-employed positions in the landscaping and horticulture industries. The curriculum is taught utilizing high-tech and hands-on training. This training includes the use of an advanced computer landscape design software program, the fifty-five acre campus as a living classroom, and the school's greenhouse. Students will learn landscaping and horticulture with instruction that includes both theoretical and practical / hands-on components. This includes such units as floriculture, hydroponics, plantscaping, landscaping, grounds maintenance, business math, small business management, cost and labor estimation, digital and CAD project proposals, and much more. Students in this program take the same rigorous coursework required in academic high schools, including but not limited to algebra I, geometry, algebra II, geophysical science and biology. Cooperative work experiences are available in the junior and senior year. Prospective students should have some mechanical ability, a familiarity and interest in technology, and an understanding of basic science and math. Lastly, students in this program should enjoy working outdoors and as a member of a team

School of Performing Arts

Dance

Dance is the art of gesture and movement. Dance organizes physical energy and draws upon the power of music, literature, drama and the visual arts. In this program, students will study ballet, Jazz and tap. As students progress through the program, they will refine dance technique and work on the development of both body and mind. In addition to the physical dance, students study nutrition, anatomy dance history, dance composition and choreography. Dance is a balance of knowledge, skills, and attitudes. An education in dance can provide opportunities in many fields of dance including:

Performance, Therapy, Choreography, Education, Commercial Work, Television, Advertising and Technical Theater

Theater

The theater program incorporates acting and musical theater. Students will study character development, play and script analysis, scene development, Theater History and Theater Fundamentals. Emphasis is placed upon public speaking and techniques for performing in front of others. An education in theater allows students to develop as well-educated citizens. Communication, critical thinking, self-motivation and self-esteem all benefit from the study of acting. Students also have the ability to gain college credits as a result of articulation agreements with local colleges.

The well-spoken individual can enter the fields of performance, costumes, sound, lights, broadcast journalism, public relations and numerous related fields.

Instrumental Music

The program is designed to provide skills basic to all musicians. Students will study music history, theory, and performance. In addition to the student's primary instrument, techniques will include piano techniques, rhythmic studies, ear training, solfege, and harmonics. Electronic and computer music is also incorporated in the program. The history of music and the social applications and impacts will be covered as the student moves through the program.

In addition to playing the instrument, professional opportunities will be discussed. Upon graduation, choices include, but are not limited to, performance, instruction, creative directing, music therapy, video editing, music software programming and technical recording.

School of Pre-Engineering

Project Lead The Way developed a four year sequence of courses which, when combined with college preparatory mathematics and science courses in high school, introduces students to the scope, rigor and discipline of engineering and engineering technology prior to entering college.

The courses are:

- Introduction to Engineering Design
- Digital Electronics
- Principles of Engineering
- Computer Integrated Manufacturing
- Civil Engineering and Architecture
- Biotechnical Engineering (in development)
- Aerospace Engineering (in development)
- Engineering Design and Development

Introduction at this level will attract more students to engineering, and will allow students, while still in high school, to determine if engineering is the career they desire. Students participating in PLTW courses are better prepared for college engineering programs and more likely to be successful, thus reducing the attrition rate in these college programs, which currently exceeds 50% nationally.

Principles of Engineering - A course that helps students understand the field of engineering/engineering technology. Exploring various technology systems and manufacturing processes help students learn how engineers and technicians use math, science and technology in an engineering problem solving process to benefit people. The course also includes concerns about social and political consequences of technological change.

Civil Engineering and Architecture - This course provides an overview of the fields of Civil Engineering and Architecture, while emphasizing the interrelationship and dependence of both fields on each other. Students use state of the art software to solve real world problems and communicate solutions to hands-on projects and activities. This course covers topics such as: The Roles of Civil Engineers and Architect, Project Planning, Site Planning, Building Design and Project Documentation and Presentation

Engineering Design and Development - An engineering research course in which students work in teams to research, design and construct a solution to an open-ended engineering problem. Students apply principles developed in the four preceding courses and are guided by a community mentor. They must present progress reports, submit a final written report and defend their solutions to a panel of outside reviewers at the end of the school year.

Digital Electronics - A course in applied logic that encompasses the application of electronic circuits and devices. Computer simulation software is used to design and test digital circuitry prior to the actual construction of circuits and devices. **Introduction to Engineering Design** - A course that teaches problem-solving skills using a design development process. Models of product solutions are created, analyzed and communicated using solid modeling computer design software. **Computer Integrated Manufacturing** - A course that applies principles of robotics and automation. The course builds on computer solid modeling skills developed in Introduction to Engineering Design, and Design and Drawing for Production. Students use CNC equipment to produce actual models of their three-dimensional designs. Fundamental concepts of robotics used in automated manufacturing, and design analysis are included.

Academy of Information Technology

Computer Science

As technology continues to advance so too will the widespread use of computer technology. Students in this program will be exposed to the rigorous development of problem-solving methodologies, on-line based development, algorithm development and data structures. Students will use these to design software and implement computer-based solutions. On the application side, students will learn object oriented programming design using C++. On the internet and server side, students will learn JavaScript, VBScript, Active Server Pages and Access. Students will study SQL while working in an Oracle database. Students must take Algebra I, Algebra II and Geometry. Students in this program will take a fourth year of mathematics. Additionally, students take Biology or Chemistry. Select students may also take various classes for college level credits. Students who wish to enroll in this program must have strong ability in mathematics and science, and have a strong desire to learn applications programming and web based applications.

Computer Repair

This program recognizes the need for a trained, skilled workforce to address the intricacies of computer repair and maintenance. Students learn the rudiments of hardware design, digital electronics and networking maintenance. Computer Repair majors will learn by doing. Starting with basic parts, students will work in teams to reconstruct each element of the computer, including motherboards. In the second year students will learn to install and maintain such systems as Window XP, Internet Explorer, Linux and Windows 2000. The final two years of the program prepares students to take the certifying examination such as A+ Certification and CLNA (Cisco Certified Networking Associate). Students in this program must take Algebra I, Algebra II and Geometry. This is a highly technical program which requires a fundamental understanding of computers, logic and strong reasoning abilities.

Academy of Medical Arts

The Academy of Medical Arts is a four-year program that attracts and recruits students with a strong science background and interest in a medical career. The program is designed to promote young peoples' self-confidence about their ability, increase their connection to health care mentors, employment opportunities and fosters the academic and work-related competencies they need to secure careers and succeed in health care. The advanced knowledge and academic standards enhance their success at post-secondary institutions.

New trends in health care, is that of the multi-competent and multi-skilled worker. Students in the Academy of Medical Arts program are trained in a variety of health careers such as Dental Assisting, Medical Office Practices, Nurse Assisting/CPR First Aid, and EMT/Medical Assisting. Certification examinations accompany three of our areas of health care training, giving students the competitive edge to navigate in the complex world of work or to pursue college studies in pre-med.

PCTI Academy of Medical Arts students are given the opportunity to earn up to 15 college credits during their junior and senior years. This is made possible through our membership in the University of Medicine and Dentistry of New Jersey (UMDNJ) Health Science Careers Consortium. Students participate in a progressive series of activities designed to follow their skills in a hands-on "real life" environment, as they move from novice freshmen to capable seniors.

Deaf/Hard of Hearing Program

Careers I

The Careers I curriculum is designed for students with auditory deficits who require a self-contained, departmentalized program of studies. The Careers I curriculum is an introduction to the essential elements in the career selection process. It is designed to assist students in making a vocational choice commensurate with their abilities and interests. The range of concepts and skills will allow a multilevel effectiveness for all students. Content will include an introduction to career opportunities, the identification of personal goals and attitudes, an exploration of personal likes and dislikes related to employment, available resources for seeking employment, how to complete required employment forms and a unit on deaf awareness.

Careers II

The Careers II curriculum is designed for students with auditory impairments who require a self-contained, departmentalized program of studies. The Careers II curriculum is a continuation on the skills needed to secure and maintain employment. It is designed to assist students in developing the necessary inter-personal skills and attitudes to become and remain successfully employed. The range of concepts and skills will allow for a multi-level effectiveness for all students. Content will emphasize the use of job seeking techniques that include applying and interviewing for employment, information relative to maintaining long term employment and understanding salary and benefits. A deaf awareness unit is also included.

English

The English AH curriculum is designed for students whose primary disability is either hard of hearing or deaf. Content for students who are deaf includes American Sign Language, Visual discrimination and memory skills, finger spelling, receptive and expressive language skills, written expression, grammar, functional vocabulary and comprehension. Both types of curriculum are designed to provide students with the skills needed to function in the world of work and as independent adults. The concepts and skills presented will be graded to the individual needs of students with varying abilities and degrees of hearing to allow success and effectiveness at all levels.

Environmental Science

Primarily designed for students with auditory impairments, this full year course introduces students to environmental issues that impact on occupational areas and everyday life. The Environmental Science curriculum explores the identification of the earth's structure and topography by examining the physical and ecological importance of our planet. The topics of environmental interaction among the earth's ecosystems are introduced to demonstrate the importance of the interrelationship of plant and animal kingdoms to maintain the delicate balance of nature. This course is designed to make the principles and practices of environmental science become a part of daily living and occupational experiences. The range of concepts and skills will allow a multi-level effectiveness for all students.

Physical Science

Physical Science is designed for freshmen students with hearing impairments, but upperclassmen may enroll. The physical science curriculum explores basic scientific principles through the study of atoms, energy, matter, motion, and their uses. It is designed to make the principles and practices of physical science become a part of daily living and occupational experiences. The range of concepts and skills will allow a multi-level effectiveness for all students.

Biology

Designed for students with hearing impairments, Biology is an introductory course offered to students in grades ten through twelve who require this science in order to succeed in their vocational studies. The Biology curriculum is divided into two levels: *General* for those who read above a 3.0 grade level and *Functional* for those who read below this level. Both levels allow the students to explore the structural and functional similarities and differences that exist within the four major kingdoms of living things with emphasis placed on the human body. Both levels are designed to make the principles and practices of Biology become a part of daily living and occupational experiences. The range of concepts and skills will allow a multi-level effectiveness for all students.

Group Dynamics

The Group Dynamics AH curriculum is designed for upper level students with hearing impairments, although underclassmen may enroll. Content includes an assessment of one's ethics, stresses and self-esteem. Strategies to enhance communication, improve social interactions and to resolve conflicts will be emphasized. Students will also study stereotypical behavior and teenage - issues that self-esteem and interpersonal relationships particularly for the Deaf/HH population.

History & Community

The History & Community curriculum is designed for students who have an auditory disability and demonstrate the need for a life skill oriented course of study. The History & Community curriculum is a life skill oriented course that is individualized and emphasizes students' roles in their community. It is designed to provide students with the skills needed to function in the world of work and as independently as possible as an adult. The concepts and skills presented will be geared to the individual needs of students with varying abilities to allow success and effectiveness at all levels.

Learning Strategies

The Learning Strategies AH curriculum is designed for sophomore students with hearing impairments, although students in other grades with hearing impairments may be enrolled. Learning Strategies curriculum is designed to assist students in improving their skills in the mechanics of study and to guide them toward self-direction. Emphasis is placed on the use of reference materials, outlining, taking accurate notes, organizing materials and test-taking skills. Interpreting, skimming and scanning material are also addressed. Select study strategies are introduced. Spelling skills are reinforced. The concepts and skills presented are designed to address the varying abilities of students to allow success and effectiveness for all levels of students. Content includes organization, location, interpretation, test-taking, note-taking and spelling skills. Techniques for skimming and scanning are also addressed. Emphasis is placed on study 2 strategies commensurate with learning styles.

Math

The Mathematics AH curriculum is designed for students whose primary disability is either hard of hearing or deaf. The Mathematics AH curriculum is a life skill and vocationally oriented course that is individualized and emphasizes the calculation and application of whole numbers, fractions, decimals, percents and measurements. It is designed to provide students with the skills needed to function as independently as possible. The concepts and skills presented will be geared to the individual needs of students with varying abilities to allow success and effectiveness at all levels.

United States History I

The U.S. History I curriculum for the Deaf/Hard of Hearing is designed for exceptional students who require a self-contained, departmentalized program of studies. The U.S. History I curriculum is a basic U.S. History course that addresses a fundamental understanding of the political, social, geographic and economic foundation of our present structure in relation to historical events. It is designed to help students understand the important contemporary issues of our country. The range of concepts and skills taught will allow a multi-level effectiveness for all students. Content will include the many factors that have shaped the United States between 1492 and 1867. It will cover all aspects of American growth and development from Colonization to the Civil War. Strong emphasis will be placed on conceptual learning and the interrelationships of a variety of social, political, geographic and economic details. It will also provide the attitudes, values and skills to encourage good citizenship and social responsibility.

United States History II

The U.S. History II curriculum for the AH students is designed for students with hearing impairments who require a self-contained, departmentalized program of studies. The U.S. History II curriculum is a basic U.S. History course that addresses a functional understanding of the political, social, geographic and economic foundation of our present structure in relation to historical events. It is designed to help students understand the important contemporary issues of our country. The range of concepts and skills will allow a multi-level effectiveness for all students. Content will include the many factors that have shaped the United States between 1867 and 1994. It will cover all aspects of American growth and development from Post-Civil War, the western movement, the development of Industrial America, including World War I and II, The Vietnam War, inflation, and the uncertainty of the 1970's and 1980's and the future. Strong emphasis will be placed on conceptual learning and the interrelationships of a variety of social, political, geographic and economic details. The attitudes, values and skills to encourage good citizenship and social responsibility will also be addressed.

World Cultures

Designed for students with hearing disabilities, World Cultures is a self-contained, departmentalized course that will satisfy one year of the State of New Jersey's high school social studies graduation requirement. The World Cultures curriculum is a basic introduction to the historical, geographical, political, cultural, religious, and economic background of different parts of the world. The interdependency of countries and the impact of the above areas on occupations is discussed. It is designed to make the principles and practices of different world cultures become a part of daily living and occupational opportunities. The range of concepts and skills will allow a multi-level effectiveness for all students.