







# COURSES OF STUDY 2023-2024 SCHOOL YEAR



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#### **MISSION STATEMENT**

Sto-Rox School District prepares students to meet tomorrow's challenges in a rapidly changing world. We empower all students to reach their highest potential by cultivating critical thinking, high academic standards, and strong, positive relationships in a safe and secure environment. Our practices and policies are shaped by respect, kindness, integrity, equity, accountability, and honest and ethical behavior.

"Creating opportunities for today's students to succeed in tomorrow's world!"

# STO-ROX HIGH SCHOOL GRADUATION REQUIREMENTS

A minimum of 22 credits is required for graduation. These credits must be earned in grades 9, 10, 11, and 12. The minimum of 22 credits shall include the following:

<u>Credits</u>	<u>Subjects</u>
4.0	English
4.0	Social Studies
4.0	Science
4.0	Mathematics
2.0	Physical Education/Health (0.5 each year/must include
	one semester of Health/Phys Ed)
<u>4.0</u>	Electives
22.0	<b>Total Credits for Graduation</b>

<sup>\*</sup>Proficient level or better (class of 2019 and beyond) on the Algebra, Literature, and Biology assessment exam (Keystones) or successful completion of a comprehensive resource set by PDE for the remediation of students' basic skills.

Act 158 of 2018 (Act 158) provides alternatives to Pennsylvania's statewide requirement of attaining proficiency on the three end-of-course Keystone Exams (Algebra I, Literature, and Biology) in order for a student to achieve statewide graduation requirements. This toolkit is designed to provide guidance as a result of the enactments of Act 158 and Act 6 of 2017 (Act 6), which established alternative pathways to meeting statewide graduation requirements for students who are Career and Technical Education (CTE) concentrators.

Effective with the graduating class of 2023, students have the option to demonstrate postsecondary preparedness through one of four additional pathways that more fully illustrate college, career, and community readiness.

Keystone Exams will continue as the statewide assessment Pennsylvania uses to comply with accountability requirements set forth in the federal Every Student Succeeds Act (ESSA). Although students will no longer be required to achieve proficiency on the Keystone Exams in order to meet statewide graduation requirements, students must take the Keystone Exams for purposes of federal accountability.

\*Community Service – each student is required to complete seven hours of documented community service each school year, thereby acquiring 28 hours before graduation.

The diploma shall be awarded to members of the senior class after the 180<sup>th</sup> day of instruction in a school year is complete. No official diploma shall be awarded prior to the 180<sup>th</sup> day of instruction in a school year, unless so directed by the school board.

The Superintendent of Schools, however, may issue a letter of completion by request of the high school principal, prior to the 180<sup>th</sup> day of instruction for students who fulfill all graduation requirements early and who request documentation. Such students may choose to participate in ceremonial graduation activities such as prom, senior award ceremony, and commencement and will receive their diploma when they are issued to the graduating class. Students who complete their high school education through home schooling or who receive a General Education Diploma (GED) are not eligible to receive a Sto-Rox High School diploma, except as exempted by federal and state law, e.g., Operation Recognition.

Note: Children with disabilities who satisfactorily complete a special education program developed by an Individualized Education Program Team under the Individuals with Disabilities Education Act shall be granted and issued a regular high school diploma.

Commencement Participation – In order to participate in the commencement ceremony, a student must have earned 22 credits and successfully completed all graduation requirements. No exceptions are made. In addition, students must have met all outstanding delinquent obligations.

# Below are examples of Grade-Level Schedules

## Possible Freshman Schedule by Period

- 1. Environmental Science
- 2. Career Exploration
- 3. World Language (Spanish)
- 4. English 9
- 5. Algebra 1
- 6. Civics
- 7. Health and Physical Education
- 8. STEAM or other Elective

# Possible Sophomore Schedule by Period

- 1. English 10
- 2. Geometry
- 3. Technical Education or another Elective
- 4. Global Awareness
- 5. Health and Physical Education
- 6. Biology
- 7. Personal Finance
- 8. Other Elective

#### **Possible Junior Schedule by Period**

- 1. Algebra II
- 2. Food Science
- 3. US History
- 4. English 11
- 5. Health and Physical Education
- 6. Videography
- 7. Chemistry
- 8. Other Elective

## Possible Senior Schedule by Period

- 1. Physics
- 2. Pre Calculus or Calculus or Integrated Math
- 3. English 12
- 4. Global Society/Comparative Religions
- 5. Videography or another Elective
- 6. Health and Physical Education
- 7. Psychology
- 8. Other Elective

#### **GRADING SCALE**

The Board directs that the instructional program of this District include a system of grading for all pupils, which is consistent with the educational goals of the District. The Superintendent shall develop procedures for grading. The present percentage grading system in the School District will be maintained in grades one through twelve:

Percentage	Grade
90-100	Α
80-89	В
70-79	C
60-69	D
50-59	E

Students will be given nothing less than a 50% of a failing grade, as per district policy (Please see policy 213 for more detail.)

## **Evaluative Procedures**

The assignment of grades should reflect every demonstrative measurable aspect of a student's performance in each subject area. To this end, the following evaluative procedures are to be utilized by all major subject area teachers, and to the maximum extent possible in the minor subject areas of physical education, music, art, family consumer science and technology education.

## **Assessment or Tests**

60% of each Nine-Week Grade

## **Class Participation**

20% of each Nine-Week Grade

#### **Homework Assignments**

20% of Each Nine-Week Grade

#### **ENGLISH**

English 9 Prerequisite: None

Credit 1 – Open to 9<sup>th</sup> Graders

Duration: 1 Full Year

Freshman English introduces students to the study of literature while continuing to reinforce and build up the grammar and writing skills developed in middle school language arts. Reading will focus on comprehension and literary analysis with short stories, contemporary fiction, nonfiction, and drama. Writing will focus on the 5 paragraph essay with development of the Introduction and Thesis Statement, sentence variety and details in writing, and conclusion, while addressing student's individual error patterns and correcting them. In addition, there is a strong focus on vocabulary development.

**Honors English 9** Prerequisite: Teacher Recommendation

Credit 1 – Open to 9<sup>th</sup> Graders

Duration: 1 Full Year

Freshman English introduces students to the study of literature while continuing to reinforce and build up the grammar and writing skills developed in middle school language arts. Reading will focus on comprehension and literary analysis with short stories, contemporary fiction, nonfiction, and drama. Writing will focus on the 5 paragraph essay with development of the Introduction and Thesis Statement, sentence variety and details in writing, and conclusion, while addressing student's individual error patterns and correcting them. In addition, there is a strong focus on vocabulary development. This is an honors course. It will cover the same material as the regular English 9 course, but at a much faster, more intense pace.

English 10 Prerequisite: None

Credit 1 – Open to 10<sup>th</sup> Graders

Duration: 1 Full Year

Students gain an understanding of World Literature. This course contains a variety of literature, i.e. novels, plays, short stories, and poetry from around the world. In addition, vocabulary, grammar, writing, editing are incorporated and foundational public speaking skills are taught. Students are required to analyze literature and poetry for author, purpose, tone, style and other literary techniques using textual evidence.

**Honors English 10** Prerequisite: Teacher Recommendation

Credit 1 – Open to 10<sup>th</sup> Graders

Duration: 1 Full Year

Students gain an understanding of World Literature. This course contains a variety of literature, i.e. novels, plays, short stories, and poetry from around the world. In addition, vocabulary, grammar, writing, editing are incorporated and foundational public speaking skills are taught. Students are required to analyze literature and poetry for author, purpose, tone, style and other literary techniques using textual evidence. The Honors World Literature class covers much of the same material as the World Literature class, but at a faster and more intense pace. In addition the student is expected to work more independently in the Honors class.

# English 11 Prerequisite: None

Credit 1 – Open to 11<sup>th</sup> Graders

Duration: 1 Full Year

In their junior year, skills learned in English 9 and English 10 culminates in the completion of the Junior Research Project: a research based, informative-style document that explores a profession. This document serves as the basis of the Senior English Project, a presentation delivered to classmates, administrators, and faculty members in the fall of their Senior year. In the second semester, students study the writings of the American Revolution, short stories, modern American literature, and select American poets and short dramatic pieces from contemporary playwrights. Students will take a vocabulary quiz every week.

**Honors English 11** Prerequisite: Teacher Recommendation

Credit 1 – Open to 11<sup>th</sup> Graders

Duration: 1 Full Year

While completing the Junior Project, the juniors study revolutionary literature in the first semester. In the second semester, students study modern American literature and short dramatic pieces from classic and contemporary playwrights. Students are expected to complete video projects, extended writing and research assignments, and vocabulary assignments.

English 12 Prerequisite: None

Credit 1 – Open to 12<sup>th</sup> Graders

Duration: 1 Full Year

This course will focus on both fiction and non-fiction from a variety of sources. The intent of this course will be for students to gain an appreciation for pieces written from British, American, and World authors. Students will focus on literary elements, author styles, and a variety of themes. This course will focus on reading approaches, and writing, and listening skills in a variety of domains. Students will also complete an extended presentation based on their junior paper.

#### **AP English Literature & Composition 12**

Prerequisite – 85 or higher in Hon Amer Lit or teacher approval
Credit 1- Open to 12<sup>th</sup> graders
Duration - 1 Full Year

The AP English Literature and Composition course aligns to an introductory college-level literary analysis course. The course engages students in the close reading and critical analysis of imaginative literature to deepen their understanding of the ways writers use language to provide both meaning and pleasure. As they read, students consider a work's structure, style, and themes, as well as its use of figurative language, imagery, symbolism, and tone. Writing assignments include expository, analytical, and argumentative essays that require students to analyze and interpret literary works.

# **AP English Language & Composition 12**

Prerequisite – 85 or higher in Hon Amer Lit or teacher approval
Credit 1- Open to 12<sup>th</sup> graders
Duration - 1 Full Year

AP English Language & Composition is a course designed for seniors who successfully completed AP English Literature as juniors. This is a college level composition course that integrates the writing process, close reading, and researching. While a number of essays will be explored, major classical and contemporary rhetoricians (from Aristotle to Fish) will be covered. Students will also read a number of philosophical and literary texts. This course culminates with the AP Exam which all students are expected to take.

Creative Writing Prerequisite: None

Credit .5 – Open to 9-12th Graders

**Duration: Semester** 

Creative Writing is designed for students to create original forms of descriptive writing, poetry, drama and fiction. Vocabulary development, creative writing techniques, and skills are explored.

**Oral Communications** Prerequisite: None

Credit .5 – Open to 9-12th Graders

**Duration: Semester** 

Students will demonstrate an understanding and application of the techniques used in various forms of oral communication including informal and formal public speaking, listening skills, speech preparation and research methods. Activities involve preparing speeches to inform, entertain and persuade as well as panel discussions and oral interpretation of literature.

**Introduction to Public Relations**Prerequisite: Oral Communications

Credit .5 – 12th Graders Duration: Semester

Provides a foundation for understanding the role and function of public relations and public opinion in American society, business and industry, and in the international community. Students are exposed to various modes of written and verbal communication and will work on fine-tuning their presentation skills. The course begins by defining public relations and works toward applying the knowledge gained in an agency setting. Students learn how to plan and execute an event, handle publicity and media relations, and write for professional publications.

#### **SOCIAL STUDIES**

#### 9 Civics and Government

Prerequisite: None

Credit 1 – Open to 9<sup>th</sup> Graders

Duration: 1 Full Year

The first semester of the course focuses on the Constitution, Federalism, Citizenship and Elections. The second semester focuses on the three branches of government. This course is presented in a student centered environment. Lectures are minimal – students take ownership of their own learning. Students are responsible for nightly homework assignments, exams, current events, class participation, group work and quarterly projects. The course is comprised of high level reading, writing and interpreting data.

9 Honors Civics and Government

Prerequisite: Teacher Recommendation

Credit 1 – Open to 9<sup>th</sup> Graders

Duration: 1 Full Year

The first semester of the course focuses on the Constitution, Federalism, Citizenship and Elections. The second semester focuses on the three branches of government. This course is presented in a student centered environment. Lectures are minimal – students take ownership of their own learning. Students are responsible for nightly homework assignments, exams, current events, class participation, group work, debates and quarterly projects. The course consists of high level reading, writing and interpreting data. This course is presented in a student centered environment.

10 Global Awareness

Prerequisite: None

Credit 1 – Open to 10<sup>th</sup> Graders

Duration: 1 Full Year

This course is set up for the students to develop awareness not only of themselves and their ways, but also of the lands and cultures which share the world with them. This awareness will be accomplished by providing some insight into cultures which are very different from, and at the same time very similar to, our own. The approach used is based on the following premise: Any culture is basically a group of people who share common beliefs, social forms, behavior patterns, institutions, material traits, and historical background and traditions. An emphasis will be placed on exploring how current global issues are impacting different cultures.

10 Honors Global Awareness

Prerequisite: Teacher Recommendation

Credit 1 – Open to 10<sup>th</sup> Graders

Duration: 1 Full Year

Prerequisite: None

This course is set up for the students to develop awareness not only of themselves and their ways, but also of the lands and cultures which share the world with them. This awareness will be accomplished by providing some insight into cultures which are very different from, and at the same time very similar to, our own. The approach used is based on the following premise: Any culture is basically a group of people who share common beliefs, social forms, behavior patterns, institutions, material traits, and historical background and traditions. An emphasis will be placed on exploring how current global issues are impacting different cultures. This is an honors course. It will cover the same material as the regular Global Awareness course, but at a much faster, more intense pace.

11 U.S. History 1877- Present

Credit 1 – Open to 11<sup>th</sup> Graders Duration: 1 Full Year

This course discusses major events in American history from just before World War I to modern times. Topics include WWI, WWII, Great Depression, Civil Rights movement, cold war, major social changes, and advancements in science and technology. Students examine past events and relate them to today's world to gain a better understanding of how history has a major impact on the present.

11 Honors U.S. History 1877 - Present

Prerequisite: Teacher Recommendation

Credit 1 – Open to 11<sup>th</sup> Graders

Duration: 1 Full Year

This course discusses major events in American history from just before World War I to modern times. Topics include WWI, WWII, Great Depression, Civil Rights movement, cold war, major social changes, and advancements in science and technology. Students examine past events and relate them to today's world to gain a better understanding of how history has a major impact on the present. This is an honors course. It will cover the same material as the regular U.S. History II, but at a much faster, more intense pace.

**AP U.S. History**Prerequisite: Teacher Recommendation
Credit 1 – Open to 11<sup>th</sup> & 12<sup>th</sup> Graders

Duration: 1 Full Year

This junior and senior level course covers U.S. History from 1607 to the present focusing on issues, innovations and conflicts that have shaped American life. Discussions, writings and readings will emphasize the emergence of social patterns and political structures that characterize the United States today. The course follows an A. P. approved syllabus and therefore demands both a serious commitment and a high degree of personal responsibility. The goal of the course is to prepare students for higher level college work and as such, requires a heavy course load. Instruction includes lecturing, extensive debate and discussion, student-centered independent research and writing, and lessons designed to hone student argumentation and inquiry skills.

Current Issues in a Global Society Prerequisite: None

Credit .5 – Open to 12<sup>th</sup> graders

**Duration:** Semester

This senior-level semester elective is designed to engage students in the investigation of current global, national and regional issues. Students will research and evaluate topical news events including, but not limited to, health issues, economic concerns, foreign policy, terrorism, globalization and security issues. This course is organized around lectures, readings, debates and simulations.

Modern History to Pop Culture Prerequisite: None

Credit .5 – Open to 12<sup>th</sup> graders

Duration: Semester

This senior-level semester elective is designed to explore the changes in American society from World War II to the present. It will focus on the changing structure and values of the American family, the impact of race, ethnicity and gender, the presentation of media and the current/future impact of social media on an ever

changing society. This course will be structured around discussions, readings, lectures, simulations and video analysis.

**Comparative Religions** 

Prerequisite: None

Credit .5 – Open to 12<sup>th</sup> graders

Duration: Semester

This senior-level elective is designed to develop an awareness of the religious dimensions of human history through the study of religious diversity in contemporary communities of the United States and world. Students will explore the basic tenets of Judaism, Christianity, Islam, Hinduism and Buddhism. They will compare these religions and analyze how they impact the issues of foreign policy, terrorism, international justice and globalization. This course is organized around lecture, video analysis, class discussions and readings.

**World Geography** 

Prerequisite: None

Credit .5 – Open to 12<sup>th</sup> graders

Duration: Semester

The study of World Geography focuses on the relationships among people, places, and environments that result in geographic patterns on the earth. The students will use geographic methods to compare and analyze landforms, climates, and natural resources, as well as cultural, political, economic, and religious characteristics of the world regions. Students will use a variety of interdisciplinary sources, both primary and secondary, such as maps, pictures, and documents to learn about the geography of different world regions.

**Introduction to African American History** 

Prerequisite: None

Credit .5 – Open to 12<sup>th</sup> graders

**Duration:** Semester

An overview of the major events and developments in African American history, from Africa to the present. At its core, the history of African Americans has been connected to attempts to gain freedom. Starting with the West African empires, the course traces African Americans' quest for freedom through the Slave Trade, Slavery, Reconstruction, the Jim Crow Era, World War I, the Great Migration, the Great Depression, and World War II. It then examines key political, social, and cultural developments of the post-war period focusing on social movements such as the Long Civil Rights Movement, the Black Power Movement, and Women's Rights Movement.

**Psychology** 

Prerequisite: None

Credit  $\frac{1}{2}$  - Open to grades 10 to 12

Duration: 1 Semester

This course will introduce you to the fundamental principles of psychology and to the major subjects of psychological inquiry. It has been designed to not only provide you with the tools necessary for the study of psychology but to present you with a sampling of the major areas of psychology research. The course begins with a short overview of how psychology developed as an academic discipline and an introduction to a number of the principal methodologies most commonly deployed in its study. The subsequent units are arranged around broad areas of research, including emotion, development, memory, and psychopathology. We will focus on well-substantiated research and current trends within each of these categories.

#### **MATHEMATICS**

Algebra I Prerequisite: 85% or Higher in Pre-Algebra

Credit 1 – Open to 9<sup>th</sup> Graders

Duration: 1 Full Year

This course is an elementary algebra course that makes the transition from arithmetic to all higher mathematics. This course will help the student understand some of the basic structure of algebra and operations, processes, and skills that are used in algebra. The course will help the student to apply these skills o a variety of problems and situations. Some of the content areas included in Algebra 1 are the following: Numbers and operations, proportional reasoning, equations and functions, systems of equations and inequalities, monomials and polynomials, data analysis, and probability and predictions.

Geometry Prerequisite: Successful completion of Algebra I

Credit 1 – Open to 9<sup>th</sup> Graders

Duration: 1 Full Year

This is a traditional Geometry course that will help prepare students for future math courses and standardized tests by strengthening their problem solving skills. Students are actively learning in a classroom, the course is the same as the above course, but taught at a slower rate. After completing the course, students will be better able to think analytically and visualize plane and space figures.

Honors Geometry Prerequisite: 85% or Higher in Algebra I

Credit 1 – Open to 9<sup>th</sup> & 10<sup>th</sup> Graders

Duration: 1 Full Year

This course provides students who meet prerequisites an opportunity to study geometric facts at a more rapid pace and on a higher level than traditional geometry. Students will develop skills in deductive reasoning and logical thinking to successfully write proofs of theorems and complex problems. After completing the course, students will be better able to think analytically and visualize plane and space figures. Students will explore conjectures by exploration and enrichment topics.

Algebra II Prerequisite: Successful completion of Geometry

Or Algebra I

Credit 1 – Open to 10<sup>th</sup> & 11<sup>th</sup> Graders

Duration: 1 Full Year

This course is offered to students who meet prerequisites. This course helps students to learn and understand Algebra II. Through a variety of methods, students are required to be active participants in the learning process by solving real-life problems. Working at their own pace, students in Algebra II will spend some time in the computer lab solving interactive problems. Students will join in classroom activities, both individually and in groups that further develop a comprehension of mathematical concepts and their applications.

# Honors Algebra II

Prerequisite: 85% or Higher in Honors Geometry

Credit 1 – Open to 10<sup>th</sup> & 11<sup>th</sup> Graders

Duration: 1 Full Year

This course is offered to students who meet prerequisites. Students are expected to achieve at a higher level and work at a faster pace. The student learns how to solve and simplify a more complex variety of equations and expressions, studies the structure and properties of the sets of real and complex numbers and is introduced to concepts of functions, variation, synthetic division, determinants, logarithms, matrices, and binomial expansion. Many connections with graphing calculators are made.

## **Introduction to Trigonometry**

Prerequisite: Successful completion of Algebra II

Credit 1 – Open to 11<sup>th</sup> & 12<sup>th</sup> Graders

Duration: 1 Full Year

This course is offered for students meeting the necessary prerequisites. Many aspects of linear, polynomial, rational, exponential, logarithmic, and circular and trigonometric functions are covered including graphing and applications. Trigonometric identities and equations along with analytical geometry will also be explored. Use of the graphing calculators is incorporated in the developments and application of concepts.

**Pre Calculus** 

Prerequisite: 90% or Higher in Honors Algebra II

Credit 1 – Open to 11<sup>th</sup> & 12<sup>th</sup> Graders

Duration: 1 Full Year

This course is offered for students meeting the necessary prerequisites. The course is rigorous and explores each topic on a deeper level. Many aspects of linear, polynomial, rational, exponential, logarithmic, and circular and trigonometric functions are covered including graphing and applications. Trigonometric identities and equations along with analytical geometry will also be explored. There will be an on-line component introduced in this course that the students will be responsible for that will be an addition to the rigors of the in class responsibilities. Use of the graphing calculators is incorporated in the developments and application of concepts.

**Integrated Math** 

Prerequisite: Successful completion of Geometry

Credit 1 – Open to 12<sup>th</sup> Graders

Duration: 1 Full Year

Integrated Math topics include recognizing and developing patterns using tables, graphs and equations. Mathematical modeling is stressed as a methodology for approaching the solution to problems. Students will explore operations on algebraic expressions, and apply mathematical properties to algebraic equations. Students will problem solve using equations, graphs and tables and investigate linear relationships, including comparing and contrasting options and decision-making using algebraic models. Reinforcement of topics from two-dimensional Geometry is integrated into this curriculum. This includes applications from the areas of area and perimeter, the Pythagorean Theorem and its applications, as well as geometric proportion. Finally, introductory instruction in the area of mathematical probability is provided to reinforce use of fractions and numerical modeling. Technology will be used to introduce and expand upon the areas of study listed above.

#### **SCIENCE**

**Environmental Science** 

Prerequisite: None

Credit 1 – Open to 9th Graders

Duration: 1 Full Year

The Environmental Science class will consist of a wide array of topics ranging from the scientific method to physical science concerns. Throughout the year, the class will engage in numerous hands-on activities to solidify the concepts needed to understand scientific thinking and the foundation of biology.

**Biology** Prerequisite: None

Credit 1 – Open to 10th<sup>th</sup> Graders

Duration: 1 Full Year

The Biology class will consist of a wide array of topics ranging from the scientific method to human body systems. Throughout the year, the class will engage in numerous hands-on activities, including a variety of laboratory exercises. The students will be instructed on accepted practices in a lab setting, which will ultimately conclude in the dissection of multiple organisms. Other topics discussed throughout the year will be descriptions of the major cell components and their functions, genetics, anatomy and the importance of ecology as a process within the universe. The goal for this class is to challenge students by providing a unique blend of biological disciplines utilizing multiple student learning styles to enhance complete learning by ALL students.

**Honors Biology** 

Prerequisite: Teacher Recommendation

Credit 1 – Open to 10<sup>th</sup> Graders

Duration: 1 Full Year

The Biology class will consist of a wide array of topics ranging from the scientific method to human body systems. Throughout the year, the class will engage in numerous hands on activities, including a variety of laboratory exercises. The students will be instructed on accepted practices in a lab setting, which will ultimately conclude in the dissection of multiple organisms. Other topics discussed throughout the year will be descriptions of the major cell components and their functions, genetics, anatomy and the importance of ecology as a process within the universe. The goal for this class is to challenge students by providing a unique blend of biological disciplines utilizing multiple student learning styles to enhance complete learning by ALL students. This is an Honors course. It will cover the same material as the regular Biology, just at a much faster, more intense pace.

Chemistry

Prerequisite: Completion of Algebra I

Credit 1 – Open to 11<sup>th</sup> Graders

Duration: 1 Full Year

General Chemistry is offered to students who are not strong in math but are college bound. Topics covered include the structure and nature of matter, kinetic theory, the periodic table, types of chemical reactions, nomenclature, lab safety, basic laboratory skills and methods, stoichiometry, quantum mechanics, gas laws, bonding, and periodicity.

# **Honors Chemistry**

Prerequisite: Teacher Recommendation

Credit 1 – Open to 11<sup>th</sup> Graders

Duration: 1 Full Year

Honors Chemistry is offered to college bound academic students who are strong in math and have an interest in the sciences. Topics covered include the structure and nature of matter, kinetic theory, the periodic table, types of chemical reactions, nomenclature, lab safety, basic laboratory skills and methods, stoichiometry, electrochemistry, acids/bases, quantum mechanics, reduction/oxidation, gas laws, calorimetry, bonding, and periodicity.

Physics

Prerequisite: Grade of C or better in Algebra I

Credit 1 – Open to 12<sup>th</sup> Graders

Duration: 1 Full Year

Physics is a course designed around teaching the basics of mechanics. The student must be able to understand algebra and basic geometry. They use these math skills to cover topics like linear motion, projectile motion, Newton's Laws, vectors, and gravity. Other topics included are: Ohm's Law (basic electricity), electronics, and astronomy of the solar system. The course puts equal emphasis on concepts, calculations, and laboratory applications.

**Advanced Physics** 

Prerequisite: Teacher recommendation

Credit 1 – Open to 12<sup>th</sup> Graders

Duration: 1 Full Year

Advanced Physics is an accelerated physics course. The course is primarily the same as general physics, but it is taught in an accelerated fashion. The students are expected to know algebra and geometry before they begin this course. Because of this, the class moves at a quicker pace, and extra topics are covered throughout the year.

**AP Biology** 

Prerequisite: Successfully complete Biology I &

Chemistry

Credit 1 – Open to 11th & 12<sup>th</sup> Graders

Duration: 1 Full Year

AP Biology is a rigorous and demanding course, which is the equivalent of an introductory college biology course. The AP Biology course is designed to be taken by students after the successful completion of both high school biology and chemistry. Content will be covered in more depth and greater expectations will be placed on interpretation and analysis of information than previous biology courses. The AP Biology course aims to provide students with the conceptual framework, factual knowledge, and analytical skills necessary to deal critically with the rapidly changing science of biology. This course is designed to prepare students for the Biology College Board Advanced Placement Exam that offers students an opportunity to earn college credits. A significant amount of studying must be completed at home to allow time for discussion, labs, and inquiry during class time. The AP Biology curriculum encompasses 4 'big ideas', with Essential Knowledge and Process Skills that support each one.

Big Idea 1: Evolution - The process of evolution drives the diversity and unity of life

**Big Idea 2: Cellular Processes (Energy and Communication)** - Biological systems utilize free energy and molecular building blocks to grow.

**Big Idea 3: Genetics and Information Transfer -** Living systems store, retrieve, transmit, and respond to information essential to life processes.

Big Idea 4: Interactions - Biological systems interact and these interactions possess complex properties.

**AP Chemistry** 

Prerequisite: Successfully complete

Chemistry I

Credit 1 – Open to 11th & 12<sup>th</sup> Graders

Duration: 1 Full Year

The AP Chemistry course is designed to be taken only after the successful completion of a first course in high school chemistry. Surveys of students who take the AP Chemistry Exam indicate that the probability of achieving a score of 3 or higher is significantly greater for students who successfully complete a first course in high-school chemistry prior to undertaking the AP course. Thus it is strongly recommended that credit in a first-year high school chemistry course be a prerequisite for enrollment in an AP Chemistry class. In addition, the recommended mathematics prerequisite for an AP Chemistry class is the successful completion of a second-year algebra course. The advanced work in chemistry should not displace any other part of the student's science curriculum. It is highly desirable that a student have a course in secondary school physics and a four-year college-preparatory program in mathematics.

# Physical Education/Health and Wellness

**Physical Education** 

Prerequisite: None

Credit 1/2 – Open to all Graders

Duration: 1 semester

This course will provide knowledge and skills that will help develop lifelong healthy habits. The goal of this program is to introduce the students to wellness, fitness, and healthy living. The program will incorporate health topics that cover wellness, emergency procedures, human sexuality, anatomy and tobacco, alcohol and drugs. This will enable the student to make informed decisions regarding their well being. The physical fitness component will include circuit training, cardiovascular fitness, weight training and personal fitness. Students will be knowledgeable of the elements of fitness: cardiovascular endurance, muscular endurance, muscular strength, flexibility and body composition. Activities will include volleyball, flag football, wiffleball, basketball, ping pong, etc. These sports will require each student to engage their skill related fitness abilities (speed, agility, reaction time, coordination and balance) during participation. This course will enhance health awareness, sportsmanship and team building that will provide each student with the tools to lead healthy productive lives. Two credits are required for graduation.

**Grade 10 Health** 

Prerequisite: None

Credit 1/2 – Open to 10<sup>th</sup> Graders

Duration: 1 semester

This course will focus on Drugs, Sexuality and Violence prevention.

Students will learn about each of the major categories of common drugs, addiction's effects on the brain, the progression of addiction and how to recognize signs of each of the stages of addiction, and the progression of recovery. Also, students will learn about building healthy relationships, both the male and the female reproductive systems, and the stages of pregnancy and the responsibilities of parenthood and marriage. Finally, students will learn about the trends of violence in our society and healthy ways of communicating when angry or unhappy. Students will discuss ideas about how they can play a part in reducing violence in their own communities.

**Peer to Peer Physical Education** 

Prerequisite: None

Credit ½ - Open to grades 9 to 12

Duration: 1 Semester

This course is designed for students who want to work in a peer to peer learning environment. Emphasis will be placed on developing, improving, and enhancing the student's physical, emotional, and social fitness through partnering students with varied abilities. Students will be responsible for participating in various lifetime fitness activities designed to assist students with challenges in these areas. Students will keep a daily journal about their experiences in the class. Benefits of this class include an expanded circle of friends, activities outside of class, and opportunities for community-based learning experiences. Students registered for this class are required to participate in the after-school bocce ball club.

**CPR & First Aid** 

Prerequisite: Successful completion of Health 10

Credit .5 - Open to grades 11 & 12

Duration: 1 Semester

The Adult First Aid/CPR/AED course incorporates the latest science and teaches students to recognize and care for a variety of first aid emergencies such as burns, cuts, scrapes, sudden illnesses, head, neck, back injuries, heat and cold emergencies and how to respond to breathing and cardiac emergencies for victims about 12 years and older. Successful students will receive a certificate for Adult First Aid/CPR/AED valid for two years.

# **World Languages**

French Exploratory

Prerequisite: None

Credit 1 – Open to 9<sup>th</sup>, 10<sup>th</sup>, & 11<sup>th</sup> Graders

Duration: 1 Semester

This course will introduce English-speaking students to French by introducing them to the four basic communication skills of listening, speaking, reading and writing. Students will explore cognates and basic declination and conjugation as they learn basic phrases in French. Since language cannot be separated from culture, students will learn the geography of France and the French-speaking world, some historical background of events and people, as well as the mores and the customs of the French-speaking world.

French I Prerequisite: None

Credit 1 – Open to 9<sup>th</sup>, 10<sup>th</sup>, & 11<sup>th</sup> Graders

Duration: 1 Full Year

This beginning year-long French I Course is designed to introduce English-speaking students to French by developing the four basic communication skills of listening, speaking, reading and writing. Language skills will develop through the acquiring of specific topical vocabularies and the grammar needed for communication. Topics covered are: talking about our likes and dislikes, our friends, our leisure-time activities, our schools and the food we eat. In addition students will also be able to count, to give the time and the date, to describe the weather, and other important communicative functions. Since language cannot be separated from culture, students will learn the geography of France and the French-speaking world, some historical background of events and people, as well as the mores and the customs of the French-speaking world.

French II Prerequisite: Successful completion of French I

Credit 1 – Open to 10<sup>th</sup>, 11<sup>th</sup> & 12<sup>th</sup> Graders

Duration: 1 Full Year

The second-year French course strives to further develop the four basic skills of communication introduced at Level I: oral comprehension, oral proficiency, reading comprehension, and written composition. Language as communication in everyday life is stressed; topics discussed include: describing our physical and personality traits, describing our families, discussing past events, talking on the telephone, going clothes-shopping, etc. Attention is also give to the cultural background of France so that the student will have an even broader knowledge or and a continuing interest in the geography, history, and general contributions to our society of the French-speaking people.

**Spanish Exploratory** Prerequisite: None

Credit 1 – Open to 9<sup>th</sup>, 10<sup>th</sup>, & 11<sup>th</sup> Graders

Duration: 1 Semester

This course will introduce English-speaking students to Spanish by introducing them to the four basic communication skills of listening, speaking, reading and writing. Students will explore cognates and basic declination and conjugation as they learn basic phrases in Spanish. Since language cannot be separated from culture, students will learn the geography of Spain and the Spanish-speaking world, some historical background of events and people, as well as the mores and the customs of the Spanish-speaking world.

# Spanish I Prerequisite: None

Credit 1 – Open to 9<sup>th</sup>, 10<sup>th</sup>, & 11<sup>th</sup> Graders

Duration: 1 Full Year

Students who elect to take Spanish I will be introduced through several sections of vocabulary and basic grammar. They will become skilled in three basic components of language: reading, writing, and speaking. The focus will be, primarily, present tense verbs, greetings, and sentence structure. It also introduces the student to creating and having conversations in Spanish at a beginner's level. Topics of conversation and study will include: date and time, likes and dislikes, weather, family, school, the body, and describing oneself. Not only being versed in language, culture will also encompass a large portion of the course. Students will learn the geography of Spanish-speaking countries as well as view regional foods, dance, and art.

Spanish II Prerequisite: Successful completion of Spanish I

Credit 1 – Open to 10<sup>th</sup>, 11<sup>th</sup> & 12<sup>th</sup> Graders

Duration: 1 Full Year

Spanish II advances students in the reading, writing, and speaking of the Spanish language. Students will learn how to use verbs in the past, future, command, and subjunctive tenses. We will view and memorize advanced vocabulary related to particular subject matters as well as build upon the previous topics of Spanish I. Topics will include: clothing, travel and vacations, food and health, restaurants and shopping, household chores, transportation, and the community. Also, students will look further in depth at famous Latino musicians, writers, and politicians.

Spanish III Prerequisite: Successful completion of Spanish II

Credit 1 – Open to 11<sup>th</sup> & 12<sup>th</sup> Graders

Duration: 1 Full Year

Spanish students in the third year will demonstrate an advanced understanding of the language through reading, writing, and speaking. They will hone skills in listening and responding in Spanish. They will write full-page essays that display knowledge of vocabulary and grammatical construction. Students will further skills by examining present and past progressive verb tenses as well as the conditional. They will have expertise on comparing and contrasting as they are introduced to Spanish literature. Topics include: means of communication, personal experiences, buying and selling, technology, and how to survive in a Hispanic setting.

Spanish IV Prerequisite: Successful completion of Spanish III

Credit 1 – Open to 12<sup>th</sup> Graders

Duration: 1 Full Year

The topics covered in Spanish IV are designed for students who have a great deal of proficiency and accuracy in all aspects of the language. Students will demonstrate their competency and mastery of the oral sound as well as grammatical construction of sentences and advanced knowledge of the Latino culture. Students will be reading works of political literature from all Spanish-speaking countries as well as examining the aspects of Spanish film. Vocabulary will continue to build as we cover topics such as: similarities and differences between cultures, political and social aspects of the Hispanic world, business, and relationships. Students will also learn, in more depth, how to survive in a Spanish environment.

#### Arts

#### **Art Applications 1**

Prerequisite: None

Credit 1/2 – Open to All Grades

Duration: 1 Semester

There are no prerequisites for this course. However, this course is a prerequisite for all other art classes offered in the high school. Basic skills that are essential to all art classes are taught in Art 1. This course is recommended for students who have an interest in the visual fine arts. There will be an emphasis on discovering a variety of forms of expression and an appreciation of different art forms. Students will begin by learning basic drawing techniques and enhancing their drawing skills. Students will then learn color theory and progress to using color in their artwork. Students will explore basic methods in various media including colored pencil, watercolor, pastels, oil pastels and acrylics. Students will also explore three- dimensional art through ceramics. Grading will be based on quality of work, homework, quizzes, and class participation.

Studio Art II/III/IV

Prerequisite: Successful completion of Art

Applications I

Credit 1/2 – Open to 10<sup>th</sup>, 11<sup>th</sup> & 12<sup>th</sup> Grades

Duration: 1 Semester

This course is recommended for students who wish to explore more opportunities in the area of visual fine arts and self-expression. Based upon the knowledge and skills learned in Art I, students will explore various media and techniques on a more advanced level. This may include pencil, charcoal, pastel, ink, acrylics, watercolors, and mixed media. Students should have a strong interest in drawing and painting and are required to keep a sketchbook. Grading is based upon quality of work.

#### Music

**Band** Prerequisite: None

Credit 1 – Open to ALL Grades

Duration: 1 Full Year

Rehearsal and performance of band literature including American concert band, World Music and orchestral transcriptions. Rehearsal is geared to proficiency in intonation, nomenclature, rhythmic, harmonic and melodic aspects of music. Performances include assemblies for the high school student body as well as other district schools. Three performances for the public are included each year a: Winter Holiday Concert, a Spring Pops Concert and Graduation.

**Chorus** Prerequisite: None

Credit 1 – Open to ALL Grades

Duration: 1 Full Year

Rehearsal and performance of contemporary pop and standard literature as well as World Music and Classical literature. Rehearsal is geared towards a proficiency in proper vocalization technique as well as correct posture, intonation, breathing, harmonization, blending and articulation. Performances include various student assemblies and two public concerts each year, a Winter Holiday and Spring Pops concert.

**Beginning Band** Prerequisite: None

Credit 1/2 – Open to ALL Grades

Duration: 1 Semester

This class offers the band experience at the beginning level. The instruments taught are flute, clarinet, saxophone, trumpet, trombone, baritone and percussion. No experience is necessary – only the will and desire to play an instrument. Musical topics are introduced such as reading, music notation, analyzing and evaluating music, as well as composing and improvising simple melodies. The students present a Winter and Spring Concert.

Jazz Band Prerequisite: None

Credit: 1/2- Open to Grades 9-12

Duration: 1 Semester

This course includes the study of medium easy swing, swing ballad, shuffle, jazz waltz, rock, rock ballad, funk, bossa and reggae music in a Big Band setting. The history of jazz and the study of basic improvisation is also included in the curriculum. A performance will be required at the Spring Concert.

## **Symphonic Band**

Prerequisite: None

Credit 1 - Open to grades 10 to 12 (9th grade by

audition)

Duration: Full year class

This course focuses on music and performances. Various genres of music will be explored. Symphonic band will perform a higher level of difficult music. Performances will occur throughout the school year and will be part of the final grade. Students will be exposed to different performers throughout the class as well, broadening their musical knowledge. The course will be structured around rehearsals and performances, and students will analyze their performances.

Musical Theater Prerequisite: None

Credit 1/2 - Open to grades 9 to 12

**Duration: Semester** 

This course focuses on music and performances. It will focus on aspects such as choreography being integrated into a stage performance. There will be a final production culminating at the end of the semester/year. Various genres of musical will be introduced to students. Performances will occur throughout the school year and will be part of the final grade. Students will be exposed to different performers throughout the class as well, broadening their musical knowledge. The course will be structured around rehearsals and performances, and students will analyze their performances.

**Music Appreciation** Prerequisite: None

Credit 1/2 - Open to grades 9 to 12

**Duration: Semester** 

Based upon the World Music Curriculum, this class introduces the various aspects of the Afro/Latin tradition of music. Using the Drum Circle as a basis, students learn the various aspects of rhythm, melody and harmony based upon their own compositions of music using hand drums, xylophones and marimbas.

## Video Media

## Video/Media Production

Prerequisite: None

Credit: 1 Open to Grade(s): 9-12

Duration: 1 Semester

Video/Media Production I exposes students to broadcasting and video production through a theory -based, hands-on approach. Topics include the fundamental technical aspects of the digital video camera, camera shots and composition, media literacy, aesthetic elements and techniques, non-linear editing, Adobe Premiere editing software, NewTek Tricaster Technology, public service announcements, television advertising, short films, Vikings TV studio roles and responsibilities and broadcast news. Students also have the opportunity to work in the TV Studio to produce a variety of programming.

#### **Business**

**Word Processing** 

Prerequisite: None

Credit 1/2 – Open to ALL Grades

Duration: 1 Semester

In today's automated world, it is imperative that all students have experience with word processing equipment to create, edit, store, and print documents. Word Processing is designed to introduce students to the Microsoft Word version of word processing and to enable each student to utilize this knowledge in the workforce, in other institutions, or for personal use. Students should also be able to transfer this knowledge to adapt themselves to the use of other word processing systems. Students will review letters, tables, reports, and business forms. A heavy emphasis will be placed on formatting reports, which should aid students in other subjects during and beyond their high school years.

**Career Exploration** 

Prerequisite: None

Credit 1/2 – Open to Grade 9

Duration: 1 Semester

As an introduction to career planning, Careers Exploration will help give students an outlook of possible future careers and attempt to help them match a career area to the student rather than the student to a career area. This class will include a strengths and aptitude assessment as well as research on current careers and job pathways. Students will learn executive functioning skills and how to apply them during their high school career.

**Personal Finance** 

Prerequisite: Successful completion of Career

Introductions

Credit 1/2 – Open to Grades 10-11-12

Duration: 1 Semester

Each day you are surrounded by new choices for shopping, watching television, and other activities. You also have many choices about how to spend your money. Personal Finance can help you make the right decisions. You will develop financial literacy through integrated academics, real-world examples, and practical advice. By learning how to make informed decisions related to spending, saving, borrowing, and investing, you can build a solid foundation for your financial security now and in the future. Units of study include: Planning Personal Finances, Banking, and Credit, Investing Financial Resources, and Protecting Your Finances.

Entrepreneurship

Prerequisite: Successful completion of Career

Introductions

Credit 1/2 – Open to Grades 10-11-12

Duration: 1 Semester

This course is designed to provide students with specific information in the following areas of the business world: entrepreneurship, area planning, economics, marketing, finance, and management. Field trips and speakers from the business community, as well as business simulations, are used to involve the students in the learning of business-related concepts.

Note: This elective is designed for any student considering post-secondary education in business or a career in a related business field.

**Business Law** Prerequisite: Successful completion of Career

Introductions or Freshmen Year Credit 1/2 – Open to Grades 10-11-12

Duration: 1 Semester

This course is offered to present a broad general knowledge of the legal system and how it relates to business. Legal aspects of buying a car or house, renting an apartment, EEOC, realistic evaluation of rural vs. urban costs of living are some of the many topics covered. Upon completion of this course, students will be aware of their legal rights and responsibilities as minors and as adults in the business world, and as consumers.

Career Planning Prerequisite: None

Credit 1/2 – Open to Grades 11 & 12

Duration: 1 Semester

In a unique approach to career planning, Careers Planning will help give students an outlook of possible future careers and attempt to help them match a career area to the student rather than the student to a career area. This class will focus on each student's needs and help to guild the student in pursuing a career based on individual talents and passions. This Class will address current career trends related to technology, workforce diversity, and the global markets; exploring careers via career research, job shadowing, service learning, and community mentoring. Career Planning will help explain to students a variety of career and educational options that can be available to them through hard work and dedication. This course will also highlight self-awareness, goal setting, decision-making, and economic responsibility. Career Planning will also promote future career success by providing students with current and projected career information and help them to build skills in such vital areas as networking, resume building, teamwork, communication, interview skills, and problem-solving.

# **Technology Education**

## **Construction Technology I**

Prerequisite: None

Credit 1/2 – Open to All Grades

Duration: 1 Semester

The purpose of technology education is to familiarize students with a basic concept of tools and building materials used in the construction process. Entry-level students will develop skills with hand and power tools through a series of demonstrations and written tests, as well as hands-on experience and self-exploration through creative wood projects. Students who remain in the program will continue to their knowledge through more challenging projects to include the framing of a small room and larger projects

#### **Construction Technology II**

Prerequisite: Successful completion of Construction

Technology I

Credit 1/2 – Open to All Grades

Duration: 1 Semester

The purpose of technology education is to familiarize students with a basic concept of tools and building materials used in the construction process. Entry-level students will develop skills with hand and power tools through a series of demonstrations and written tests, as well as hands-on experience and self-exploration through creative wood projects. Students who remain in the program will continue to expand their knowledge through more challenging projects to include the framing of a small room and larger projects.

#### **Construction Technology III**

Prerequisite: Successful completion of Construction

Technology II

Credit 1/2 – Open to All Grades

Duration: 1 Semester

Construction Tech 3 serves as an advanced course for students who have shown exemplary skill in level 1/2 courses. Students in this course will create individual projects of their own design or create projects from chosen plans. All plans are approved by the instructor. Students will build upon the basic skills from level ½, such as tool safety and accurate measuring, and develop advanced skills such as prototyping, template making, and building specialty jigs for special tool operations.

#### **Computer Science Essentials**

Prerequisite: None

Credit 1 - Open to grades 9-12

Duration: 1 Year

In Computer Science Essentials, students will use visual, block-based programming and seamlessly transition to text-based programming with languages such as Python to create apps and develop websites, and learn how to make computers work together to put their design into practice. Students will apply computational thinking practices, build their vocabulary, and collaborate just as computing professionals do to create products that address topics and problems important to them.

STEAM Prerequisite: None

Credit .5 - Open to grades 9-12

Duration: Semester

In this course students will navigate the fields of science, technology, engineering, arts and mathematics to acquire in-depth knowledge through engaging hands-on projects about the subjects. Then will leverage the subject knowledge to solve real-life problems.

## **Family and Consumer Science**

**Independent Living** 

Prerequisite: None

Credit 1/2 – Open to 10<sup>th</sup> 11<sup>th</sup> & 12<sup>th</sup> Graders

Duration: 1 Semester

This Independent Living course was developed to prepare young adults for making decisions for their future. The responsibilities of being independent and managing resources are strongly emphasized. Students will have the opportunity to research the expenses of finding a place to live, choosing insurance companies, furnishing an apartment or home, buying a new car and more. This course will also explore maintaining checking and savings accounts, paying taxes and keeping a budget.

Food Science Prerequisite: None

Credit 1/2 – Open to 10<sup>th</sup> 11<sup>th</sup> & 12<sup>th</sup> Graders

Duration: 1 Semester

This course is designed to stimulate the student interested in issues of nutrition and health, the production and marketing of food and the behavior of food substances. Students will explore the chemical makeup of food and the biology of human nutrition. Students in individual and group research will evaluate foods and explore diet related issues. Laboratory experiences and research are the major tools of exploration.

Advanced Foods and Nutrition Prerequisite: Food Science

Credit 1/2 – Open to 11<sup>th</sup> & 12<sup>th</sup> Graders

**Duration: 1 Semester** 

Advanced Foods and Nutrition is a course that incorporates more complex concepts in nutrition and foods. Proper food handling, advanced food preparation skills and meal management are emphasized. Nutrition wellness for individuals and families across the life span is stressed. Students learn to evaluate information about foods and recipes.

# PARKWAY WEST CAREER AND TECHNICAL CENTER CAREER MAJORS

**Auto Body Repair** – The Auto Body Repair program is certified by the National Automotive Technology Education Foundation (NATEF) and provides instruction in the most current techniques for repair and replacement of damaged automobile parts. Students learn to repair collision damage and to replace quarter panels, door skins, and fenders. The curriculum also includes painting, MIG welding, collision repair, frame straightening, and damage analysis. Students gain experience in mixing and tinting paint, custom painting, computerized estimation, and auto detailing. Practical experience is also provided through a full-service auto body repair shop. Students have the opportunity to earn PPG Blue Level Paint and I-Car MIG Welding certifications. They are also eligible to earn I-Car Points.

Automotive Technology – Automotive Technology is certified by the National Automotive Technology Education Foundation (NATEF) and affiliated with all of the major automotive manufacturers through Automotive Youth Educational Systems (AYES). Students prepare to take the Pennsylvania State Inspection License examination. Students learn basic vehicle maintenance, repair, and replacement of drive trains, brake systems, chassis components, and fuel and electrical systems. Special emphasis is placed on troubleshooting and engine performance via the use of state-of-the-art electronic diagnostic equipment. Practical experience is also provided in the auto repair shop. Under the Automotive Youth Educational Systems (AYES) apprenticeship program, students may qualify to become an apprentice working under mentor technicians. Students can earn certifications form AYES, the National Institute for Automotive Service Excellence (ASE), and the Coordinating Committee for Automotive Repair (CCAR).

Construction Technology Cluster – First year students spend nine weeks in the following four courses offered in the Construction Technology Cluster. They are *Building Construction Technology; Electrical Systems Technology; and Masonry*. Upon successful completion of the rotation, second-year students may choose to pursue certification in one of the following area for the remainder of their time at PWCTC.

- \*\*Carpentry A student in the Carpentry program will apply technical knowledge and skills to layout, fabricate, erect, install and repair structures and fixtures using hand and power tools, scaffolding and specialty tools used in the construction trade. This program includes instruction in common systems of framing, construction materials, estimating, blueprint reading and finish carpentry techniques. Students will be given the opportunity to earn a 10-hour Occupational Safety and Health Administration (OSHA) Construction card. Students have the potential to earn 17 certifications through NCCER.
- \*\*Electrical Systems Technology This program teaches students the integral components of the electrical industry for entry level employment in residential, commercial, and/or light industrial locations. The basis of instruction is in the layout, assembly, installation, wiring, maintenance, and trouble-shooting of electrical systems. Understanding programmable logistical controls (PLC's) and how transformers operate are also covered. Students have the opportunity to earn 20 certifications through NCCER.
- \*\*HVAC/R Heating, Ventilation, Air-Conditioning, and Refrigeration, which has been newly renovated with state-of-the-industry equipment, provides instruction in basic and advanced electrical theory, troubleshooting and repair of residential and commercial heating, air-conditioning, and refrigeration systems. Students will be given the opportunity to earn a 10-hour Occupational Safety and Health Administration (OSHA) Construction Card. Students can earn the NCCER certifications Core, Type 1 and Type 2. They can also earn EPA Section 608 Refrigeration and Gas Tight Certification for CSST pipe. Masonry offers instruction in the construction of brick and block walls for residential or commercial structures.

\*\*Welding Technology – The Welding Technology program covers several types of welding processes by which metal may be bent, cut, or welded together, including oxy-fuel, shielded metal arc, gas metal arc, gas tungsten arc, flux core welding, carbon arc, plasma cutting, and oxy-fuel brazing. Students will learn the importance of industry safety, measuring instruments, hand tools, grinders, metallurgy, blueprint reading, electrical principles, layout/design, and fabrication. They will also learn how to prepare materials lists for cost estimates. Students have the opportunity to earn several American Welding Society (AWS) certifications. Students can earn: NCCER Core, Welding Level 1 and OSHA 10.

Cosmetology – The Cosmetology program prepares students to perform technical services including all aspects of hair, skin/nail beautification, and personal maintenance. These skills are supported and reinforced with theoretical background including sanitation, chemistry, anatomy, and physiology, as well as structure, function, and disorders of the hair, skin, nails, and scalp. The Cosmetology program helps students develop into well-rounded professionals, who practice real-world services in Parkway's salon, which is open to the public two days a week. Utilizing an integrated approach to teaching and learning, students learn about interpersonal relations, professional attitude, and career fundamentals along with technical knowledge and skills. The techniques and abilities are practiced and tested on mannequins, classmates, and the general public. Students who are able to attend this program for three years will have the opportunity to take the state licensing exam to be a licensed cosmetologist, which encompasses providing services to the public for hair, skin, and nails. Students who are able to take one or two years of instruction in this program may choose from the following specialized licensed fields:

**Nail Technician License:** This license requires 200 hours of instruction and can be completed within one year. An individual holding a nail technician license is qualified to perform nail technology services only.

**Cosmetology Teacher License:** Prerequisite for this course is having successfully passed at least one of the above licenses. This license requires 500 hours of required studies and can be completed within one year. An individual holding a teacher's license is qualified to perform the functions of a teacher in whichever specialized area the individual has obtained licensure.

Culinary Arts – The Culinary Arts program provides practical instruction in the preparation of banquet, buffet, and a la carte styles of food preparation. Practical experience is provided through the operation and management of an in-house, full-service restaurant Students also provide goods and services for the Parkway West Food Store, where pastries and select meats are sold. Students learn to design cakes and prepare many different types of cuisine. Senior students who have completed at least two years of Culinary Arts will have the opportunity to earn both the National Restaurant Association's ServSafe certification and the American Culinary Federation certification. Other certifications that can be earned from the Culinary Arts program include: OSHA 10 Culinary, SP2, HeartSaver CPR, and HeartSaver First Aid.

Cyber Security & Network Technology – This program prepares students who are interested in networking and computer diagnostics. It begins with Cisco IT Essentials, PC Hardware and software, and networking operating systems. Students initially prepare for CompTIA A+ and Comp TIA Server + certifications and then, through Cisco CCNA Discovery course, students learn networking concepts based on typical networks that one might encounter in a home or small office, or in larger, more complex enterprise models. Finally, students can prepare for the Cisco CCENT and Cisco CCNA certifications.

**Diesel Technology** - This program is part of every aspect of today's transportation, construction, and manufacturing industries. In Diesel Technology, students will learn about the operation, maintenance, and overhaul of diesel powered equipment. Diesel engines are found in military vehicles, trucks, trains, buses, construction and agricultural equipment. As the diesel equipment industry expands, the demand for mechanics and technicians to repair and maintain diesel equipment will continue to grow. Students will learn the fundamentals of hydraulics and have the opportunity to earn an Air Conditioning Recovery Certification. Students can earn certifications from the National Institute for Automotive Service Excellence (ASE), Refrigeration 609, Class I & III State Inspection, Forklift Operations.

**Graphic Arts and Production Technology** – This is an instructional program that prepares individuals to apply technical knowledge and skills to plan, prepare and execute commercial and industrial visual image and print products using mechanical and digital graphic and printing equipment. Students learn desktop publishing, layout, composition, digital printing and binary as well as photography and other graphic arts techniques. Emphasis is on typographical layout and design using computer graphics, digital printing, bindery and finishing techniques, and ink and color preparation. Students will also learn large format digital printing with application of a wide variety of output and vinyl applications including heat press and apparel design.

**Healthcare Occupations Technology** – Students have the opportunity to participate in a wide-range of real-world clinical and job shadowing experiences at many different local healthcare providers. Clinical experiences may include: child care, long term care, emergency nursing, recovery room nursing, radiology, medical records, operating room observation, pharmacy, physical/occupational therapy, and/or lab technician. Students will have the opportunity to earn and complete the American Heart Association "CPR for Healthcare Providers" certification and the following certifications in relation to the HealthCare industry: Pennsylvania State Nurse Aide Registry (C.N.A.). For first and second year students, instruction begins with anatomy, physiology and medical terminology. Special attention is given to medical office examinations, treatment and patient care. Personal Care Home Direct Care Staff: For first and second year students, this component offers a competency test from the PA Department of Public Welfare and it prepares students to work in a personal care home as a direct care giver. Pharmacy Technician Certification (CPhT): After successful completion of this one-vear, 12th grade course, students will assist the pharmacist in a variety of tasks. Module and lab work includes: controlled substances, laws and regulations, drug classifications, frequently prescribed medications, prescription information, preparing/dispensing prescriptions, calculations, sterile products, unit dose and repackaging. Phlebotomy Technician Certification (CPT): This is a one semester certification course directed towards 12th grade students. Module and lab work includes: anatomy and physiology, infection control, safety and compliance, patient preparation, collection techniques, and processing collected samples. Students must demonstrate a minimum of 30 successful Venipunctures and 10 successful capillary punctures.

**Public Safety Technology** – The Public Safety Technology program focuses on careers relating to emergency medical services, firefighting, law enforcement, and emergency management services. In order to successfully complete the program, students must meet minimum proficiency levels in all public safety areas. Instruction is provided in disaster situations/management, hazardous materials handling, pre-hospital medical care, map reading, firefighting, the judicial system, and emergency dispatching. Students have the opportunity to earn the following certifications: Emergency Medical Technician-Basic (EMT-B), PA Essentials of Firefighting, Hazardous Materials Awareness and Operations, Basic Rigging for Rope Rescue, and Tactical Handcuffing.

**Veterinary Technology** – Students will learn to keep medical records, schedule, offer client education, practice laboratory procedures, assist with nursing duties, prepare animals for surgeries, and assist during routine physical exams. Students will also gain a solid educational base on which to build a post-secondary degree. This program may lead to additional career pathways such as Animal Trainer, Veterinary Assistant, Kennel Assistant, Research Assistant, Groomers, Animal Control Workers, Veterinary Technician, Veterinary Technologist and Veterinarian. Students may earn the following certifications: NAVTA, OSHA 10 Agriculture, OSHA 10 Healthcare, Pet Tech First Aid and CPR.

**Sports Medicine and Rehabilitation Therapy Technology (SMARTT)-** This program prepares students to work in the field of physical therapy, occupational therapy, and sports medicine. Students will develop skills in prevention, assessment, prognosis and rehabilitation of injuries and other health conditions. Students will learn the principles of developing a plan of care including: evaluation, interventions (exercise, manual therapy, modalities and neuro re-education), assessment, goal setting and discharge. Students will also learn how to develop a diet for healthy individuals and for special populations through a comprehensive understanding of nutrition. Students will also be prepared to sit for the ACSM certified personal trainer exam and have the opportunity to earn CPT credential.

# **College Courses Offered Through CCAC**

HIS-104 US History Early to 1865 Prerequisite: Teacher Recommendation

Credits: 1 HS / 3 College Open to Grades 11 – 12 Duration: 1 Semester

This course is designed as a survey of political, economic and social developments of the United States from early exploration and settlement through the end of the American Civil War and the onset of Reconstruction.

**HIS-105 US History since 1865** Prerequisite: Teacher Recommendation

Credits: 1HS / 3 College Open to Grades 11 – 12 Duration: 1 Semester

This course is designed as a survey of political, economic and social developments of the United States from the end of the Civil War in 1865 to the beginning of the twenty-first century.

# **College Courses Offered Through University of Pittsburgh**

COMMRC 0500: Argument Prerequisite: Teacher Recommendation

Credits: 1 HS / 3 College Open to Grades 11 – 12

Duration: 1 Year

This course is designed to introduce students to the fundamentals of research and argument construction. Defense of an argument is presented both verbally and in writing. Topics of this course include an introduction to argument, types of argument, constructing an argument, research methods and evidence, delivery of argument, delivery and refutation of arguments, cross-examination, and evaluation or criticism of arguments.

**PSY 0010: Intro to Psychology** Prerequisite: Teacher Recommendation

Credits: 1 HS / 3 College Open to Grades 11 – 12

Duration: 1 Year

The objective of this course is to provide students with an overview of the diverse field of psychology, and an appreciation of the way that behavior and mental processes can be studied scientifically.