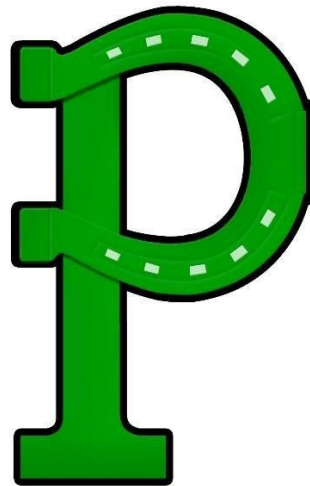


Portage Area High School Course Catalog



The vision of the Portage Area School District is to provide an educational environment that identifies the gifts, talents, and intellect of educators and students so that each will be a positive contributor to our society.

GRADUATION REQUIREMENTS

Students must be able to demonstrate achievement through performance based education. Planned courses will provide opportunities for all students to develop adult life roles, the skills of analysis, synthesis, evaluation and problem solving, information literacy and significant knowledge in one or more areas of concentrated study.

In order to attain a Portage Area School District diploma, every student must complete a senior project, an independent reading requirement, 60 community service hours (10 hours per year), have achieved proficiency levels on state assessments as required by the PA Department of Education, and obtain a minimum of 24 units of credit. These credits, obtained in Grades 9-12, are as follows:

English-4credits

Math- 3 credits (all students will be scheduled for 4)

Social Studies -4 credits Science-3credits

Health and Physical Education –4 credits

Independent Reading—.33 credits per year grades 9-11 Driver

Education -.5 credit

Vo-tech -3 credits per year (Admiral Peary)

Electives- m i n i m u m o f 7 Credits

In addition, seniors must attend PAHS their senior year in order to participate in graduation ceremonies.

GRADES AND GRADING SYSTEM

Portage Area High School has adopted four nine week grading periods to report grades to parents/guardians.

Nine (9) week grades are determined primarily from class work and test results. Points in a given class may vary due to the content and nature of the subject. In most cases, a minimum of 200 points should be available in grade determinations.

A grade should reflect not only achievement and scholarship but also should consider personal qualities such as cooperation, dependability, leadership, attitudes, honesty, neatness and courtesy. A combination of several items (listed above) may have an effect on the student's grade. No letter grade may be reduced by more than one level in relation to these personal qualities. (Example "8" to "C")

It is the responsibility of the student to promptly make up any work he or she has missed. Any time a student is legally absent from school or class, he or she shall have three (3) school days including his/her day of return, to complete the necessary make-

up work. All missed work not completed with 3 school days will be considered as zero (0) for grading purposes.

Students informed of assignments, exams, and or project deadlines prior to an absence, who are absent the day of he assignment or project is due or the exam takes place are expected to hand in the assignment or project and complete the exam the day of their return.

The Portage Area Board of School Directors has approved the following percentages:

- 90-100%-- Superior work (equivalent to "A")
 - 80-89%-- Above average work (equivalent to "B")
 - 70-79% --Average work (equivalent to "C")
 - 60-69%-- Below average work (equivalent to "D")
 - Below 60%-- Failing (equivalent to "F")
- Percentages are also used in computing class rank.

WEIGHTED GRADING SCALE

For the purpose of recognizing the additional effort and achievement associated with completion of courses demanding more than the usual quantity or intensity of study, a weighting system shall be applied to student grade point averages, for purposes of computing class rank. This system shall be effective for all high school students beginning with the 2003-2004 school year. The grading scale will be based on three levels of courses:

Level I - The actual percentage

Level II - The percentage times 1.03

Level III - The percentage times 1.06

The following is a list of Level II and Level III courses:

Level II

Accelerated Algebra II
Accelerated Geometry
Anatomy and Physiology II
Academic Chemistry
Virtual High School Courses
Physics

Level III

Accounting
Calculus
College Algebra
Pre-Calculus/Trigonometry
Biology II
College English
Chemistry 2

Spanish 3 and 4 Virtual High
School AP Courses

**All courses that are offered for college credit will be Level III courses.

**As new courses are added, they will be evaluated on an individual basis to determine the level of placement.

** All new courses must be added prior to the beginning of any school year

Computer Science

Introduction to Technology 9

0.5 Credit

Students will be introduced to a variety of technology in the fields of informational, physical, and biotechnologies. The units include major projects in the areas of rocketry, CO2 powered vehicles, mousetrap vehicles, magnetic levitation, structural design, and manufacturing. The class is a laboratory-based curriculum, which allows students to apply basic scientific principles to each hands-on activity.

Introduction to Business 9

0.5 Credit

Introduction to Business introduces students to the world of business and prepares them for the economic roles of consumer, worker, and citizen. This course will serve as a background for other, more detailed business courses, such as accounting, marketing and business law, as well as preparation for future employment, financial literacy, and consumer decision making.

Computer Programming

1.0 Credit

In this course, students will learn how to design a website using HTML and WYSIWYG editor (Dreamweaver). Students will insert images and text for effective display, take and crop pictures for a website, manage website using Dreamweaver, and develop Cascading Style Sheets for website development. In addition, students will also learn to create mobile apps with the use of MIT App Inventor 2.

Keyboarding 7

Keyboarding is a one year course designed to help students develop speed and accuracy by learning the touch operation of alphanumeric/keyboard characters. Emphasis placed on the following: mastery of the keyboard with desirable keyboarding techniques; development of speed and accuracy; and proper care of the equipment. Keyboarding is the foundation for developing entry-level skills for business careers.

Computers 8

Students will be introduced to a variety of computer programs during this class. Students will start off using Microsoft Word and creating a Blogster. Students will then create a country brochure, a greeting card, and a PowerPoint Quiz using Microsoft Publisher. Students will then create an animation in Adobe Flash and stickers/t-shirt design using Adobe Fireworks and Photoshop. Students will utilize the Roland vinyl cutter to finish out the year. This course will help students gain a better understanding of the computer programs offered by the district and will allow them to gain an appreciation of the technological devices that are used in the industry.

Technology Education

Exploring Technology 7

Students will program mobile robots by applying measurement and geometry to calculate robot navigation; path planning using both geometry and multiple sensor feedback; and interpret sensor feedback, calculate threshold values, and understand conditional statements. Students will use systems, system analysis, and the experimental process while documenting and explaining the results of their testing.

Industrial Arts 8

This course provides students with an understanding of manufacturing systems, to include machine usage and maintenance. Students will utilize machines, fixtures, and procedures to safely manufacture a gumball machine. Each student will design a faceplate using the computerized laser. Students will utilize the metric and standard systems of measurement, as well as conversion of each. The addition, subtraction, multiplication and division of fractions will also be reinforced.

Materials Processing 1

1.0 Credit

Students will be introduced to the basic tools, materials, machines, procedures, and terminology utilized by the metalworking industry. The major content areas covered will include metallurgy, sheet metal, bench metal, machining, forging, foundry work, and welding. Students will complete assignments in each major area. These activities will contribute to both the understanding of major principles as well as practical applications of the materials discussed. Students will also develop an appreciation of the technological world around us.

Materials Processing 2

1.0 Credit

This course is designed to further introduce the student to the field of metal working. Students will perform various assignments in each of the areas. Students will have the opportunity to design and build products of their choice. The philosophy of the department is to advocate the maximum education experience and training for each student within the range of his/her capabilities. The course also offers students the opportunity to study design, express own ideas in design, do problem solving, and to develop a degree of skill in the safe and proper use of tools and machines.

Materials Processing 3

1.0 Credit

Students will be introduced to the advanced tools, materials, machines, procedures, and terminology utilized by the metal working industry. The major content areas covered will include sheet metal, bench metal, machining, and welding. Students will complete assignments in each major area. These activities will contribute to both the understanding of major principles as well as practical applications of the materials discussed. Students will also develop an appreciation of the technological world around us.

CADD

1.0 Credit

This course explores the use of computer-aided drawing or CAD. The current trend of the drafting industry is toward CAD. It is important that the student preparing for the field

[Type here]

of drafting or other engineering fields have a fundamental knowledge of this drawing tool and its methodologies. This course provides fundamental operating skills for the computer and the CAD software package. AutoCAD is used as the principle tool for instruction. Students will explore the concepts of basic drawing and layout, dimensioning, isometric drawing AutoCAD commands, 3D drawing and solid modeling. Students will explore and gain knowledge in operating and setting up various numerical control machines. Projects will be created by first drawing the object and then converting the drawing into Mastercam. This will allow tool paths to be created and the project machined. Students will also be able to create parts by directly plotting to the Epilog Laser cutter/engraver. This course also offers students the opportunity to study, design, and express their ideas in design and problem solving.

Robotics Engineering & Design

1.0 Credit

Students will be introduced to the engineering and robotics systems. Students will: learn the fundamentals of programming and syntax (Natural Language programming and Robot Virtual World); setup and configure VEX robots in a wired and wireless format; configure robot movements in multiple ways using feedback from integrated encoders; program a VEXnet joystick and utilize times to remotely control a robot; write functions and pass parameters about variable types to solve challenges using VEX Cortex sensors; and conduct research to solve problems utilizing engineering tools

(engineering journal, time management tools PERT, Gantt Charts, and Design Reviews.

Manufacturing 1

1.0 Credit

Students taking this course will learn how to utilize many of the woodworking tools and techniques needed to make a variety of projects. Students enrolling in this course will be expected to take safety tests on each of the machines in the shop. This course provides hands on experience from material learned throughout the year in the classroom. Students will learn simple joinery techniques as well as how to prepare and finish a product using stain and finish coats. Students will make a Regulator clock with cove molding and screen printed glass; they will also construct a hot pad on the wood lathe and finally construct a cutting board where they will be introduced to numerical control machinery through the laser cutter engraver.

Manufacturing 2

1.0 Credit

Students taking this course will learn how to utilize many of the woodworking tools and techniques needed to make a variety of projects. Students enrolling in this course will be expected to take safety tests on each of the machines in the shop. Students taking this course will throughout the year learn various aspects of trees and what makes up the wood in a tree. Students will be expected to create a leaf collection and will take part in distinguishing trees by their bark. Students enrolled in this course will make an advanced project and will learn advanced joinery and finishing techniques. The philosophy of the department is to advocate the maximum education experience and training for each student within range of his/her capabilities. It is to be considered an

essential part of a technical education. This course also offers students the opportunity to study, design, and express their ideas in design and problem solving.

Manufacturing 3

1.0 Credit

Students taking this course will learn how to utilize many of the woodworking tools and techniques needed to make a variety of projects. Students enrolling in this course will be expected to take safety tests on each of the machines in the shop. Students enrolled in this course will make an advanced project and will learn advanced joinery and finishing techniques. The philosophy of the department is to advocate the maximum education experience and training for each student within range of his/her capabilities. It is to be considered an essential part of a technical education. This course also offers students the opportunity to study, design, and express their ideas in design and problem solving.

Manufacturing 4

1.0 Credit

Students taking this course will learn how to utilize many of the woodworking tools and techniques needed to make a variety of projects. Students enrolling in this course will be expected to take safety tests on each of the machines in the wood shop. Students enrolled in this course will create an advanced woodworking project and will learn various joinery and finishing techniques. Students will learn how to determine the board feet for lumber and compile a bill of materials for the projects that are being made. Students enrolled in this course will be taught how to program and operate the numerical control router used for fabricating designs and parts for various projects. This course offers students the opportunity to express, design and problem solve using math, science and technology that they have learned in various other courses. The philosophy of the departments is to advocate the maximum education experience and training for each student within the range of his/her capabilities. It is to be considered an essential part of technical education.

English Curriculum

Developmental Reading 7 a n d 8 (Please note—both classes use the same format, however, the 8th grade curriculum is more challenging and requires students to use higher level thinking skills more often than in 7th grade.)

The focus of reading class at the junior high level shifts from learning how to read to learning how to interpret, appreciate, and connect to various types of literature. There will be plenty of opportunities for students to express their thoughts and opinions on the literature we read. Throughout the course of the school year students will be required to be “ACTIVE READERS.” Journaling is systematic way for students to record their thought, questions, opinions, predictions, inferences, etc. WHILE they are reading the stories. Journaling helps students stay focused while they read. Students will be taught how to do it, and be given an opportunity to practice journaling. Journaling will be graded.

The state of Pennsylvania recommends that each public school student read a minimum of 25 books each school year. In order to comply with this recommendation,

[Type here]

Reading class in grades 7 and 8 will include Independent Reading. Students will read books of their choosing, and be required to earn a certain number of points from quizzes on those books. Scholastic's "Reading Counts" is the testing program used by the junior-senior high school. **Independent Reading will be part of each student's grade for Reading class.** Any student who does not earn the required number of points for Independent Reading will see a **significant** reduction in his/her Reading grade.

English 7

English in the 7th grade encompasses two major areas: writing and grammar. Writing will include learning the process of writing and self/peer editing skills. Grammar includes a review of mechanics, usage, grammar, sentence/paragraph development and usage.

English 8

This course is focused on student development in writing. The class will consist of four components focusing on grammar, vocabulary, oral presentations, and PSSA prep. Students will expand their knowledge of basic grammar principles and rules. Students will be able to properly identify the parts of speech. The students will apply the parts of speech to construct complete sentences and thoughts. Students will complete a variety of writing exercises. Students will write with many different purposes and understand the difference between formal and informal writing. Students will expand their knowledge in vocabulary by participating in various vocabulary exercises. Students will be required to present an oral book report each nine weeks on a library book which they will read on their own time.

English 9

1.0 Credit

This course focuses mainly on student development in reading. Students will read a variety of stories spanning many different genres. Students will improve how to read critically and evaluate what they have read. Students will also be able to identify literary elements and explain them. Students will critically analyze a writer's point of view, tone, and purpose through writing and respond to readings using literary theory techniques.

English 10

1.0 Credit

Students in this course will study and review basic grammar, usage, and mechanics rules. Expansion and use of new vocabulary is emphasized. Research projects, performance assessments, as well as independent, small group, and large group class work are all utilized. Students will analyze, discuss, and develop reading skills dealing with literary elements such as plot, setting, simile and metaphor comparisons, character development over short and long periods of the literary work, point of view, and other key factors. Selections feature video and audio components of Steinbeck, Shakespeare's *Othello*, Wiesel's *Night*, Rand's dystopian *Anthem*, and other literary selections.

English 11

1.0 Credit

Students review, study, master, and display the essay writing process and the five paragraph essay format. This will be done with a variety of writing topics and in both the persuasive and informative mode. While doing so, students review and study basic grammar, usage, and mechanics rules as well as sentence style and the technical application of these varied writing basics in written communication. Additionally, students review, study, master and display active reading by reading, interpreting, analyzing, concluding upon, and justifying various literary selections including novels, short stories, articles (non-fiction), poetry, and Shakespeare. While doing so, students study and master literary terms and analyze and demonstrate Gustav Freytag's plot triangle allowing for successful understanding of storytelling.

English 12

1.0 Credit

Students build upon skills learned in English 11. Student think, read, listen, write, speak, and research critically. While doing so, students practice Aristotle's quote "It is the mark of an educated mind to be able to entertain a thought without accepting it" using the following question as a guide: "Where Are You Coming From", "Why Change Your Mind", and "What Should You Do?" Various fiction and non-fiction text, as well as film accommodate these questions.

College English

1.0 Credit

This course is in accordance with Mount Aloysius College. In turn, students can earn 3 college credits by successfully completing the course and paying for the credits. Students think, read, listen, write, speak and research critically. While doing so, students practice Aristotle's quote "It is the mark of an educated mind to be able to entertain a thought without accepting it" using the following question as a guide: "Where Are You Coming From", "Why Change Your Mind", and "What Should You Do?" Students give several presentations, include MLA citations in writing, and complete extra and more advanced reading and research compared to the English 12 course. This course is available for dual enrollment credits.

Public Speaking

.25 Credit

Students study, learn, develop, and practice necessary skills to become successful and effective speakers. They are given direction but creative freedom with topic choices, allowing them to choose ones that suit their interest. Students develop these topics with the purpose of communicating facts, opinions, anecdotes, advertisements, and other forms of media toward a specific purpose of informing, entertaining, or persuading. Students will enhance their respective strengths while simultaneously developing and improving their weaknesses. They will research, write rough drafts, present, critique, and reflect on topics throughout the course. All skills dealing with communication, speaking, writing, listening, selecting, critiquing) will be practiced, moving toward the mastery level.

Journalism I

1.0 Credit

This course gives students an introduction to theories and practices in the journalism world. Students are introduced to all elements of journalism dealing with audio, visual,

[Type here]

written, electronic, verbal, non-verbal, and pictorial communication. This includes, but is not limited to, newspapers, magazines, yearbooks, advertisements, pamphlets, storytelling, reviews, and editorials. Students will use these theories and skills to produce projects based on the units, culminating in a final portfolio that is produced both on hard copy and electronic, incorporating all of the learned theories and skills from the course.

Intro to Theatre

.5 Credit

This course is intended to increase students' understanding, appreciation, and critical perceptions of the performing arts. The class will focus on theatre history, elements of the theatrical production, famous European and American playwrights, major innovations that have shaped modern theatre, theatre's role in the modern world, and literary criticism. (Limited to Grades 11 and 12)

Western Mythology

.5 Credit

This course will also offer an intensive look at classical Greek, Roman, Norse, and Medieval Mythology and its adaptation's throughout history. Students will analyze famous classical writers of these eras and develop a constructed thesis on how the themes, morals, and story structures are important and relevant to today's society. (Limited to Grades 11 and 12)

Pop Culture

.5 Credit

We all use and are used by pop culture, in particular, American pop culture. Introduction to pop culture is a half year course designed to engage students to explore influences of the world happening all around us. We will focus on understanding how we are influenced by television, film, advertising, music, cyber-culture and other fields on a daily basis. We will explore these fields through factors such as ethnicity, race, gender, class, age, religion, and other influences that surround and shape what society gives us, and what we give back to it. We will look at the analysis through the perspectives of production, textual, audience, and historical means. Attendance and active participation will be mandatory throughout the course. Weekly assessments will gauge what is learned regularly with longer written assessments and projects used for independent research and cumulative learning.

Creative Writing

.5 Credit

Creative writing is an upper level course designed to generate creativity through the production of written work by numerous styles. The course will be production based, having students participate in daily writing activities to create a writing portfolio with poetry, narratives, stories, fables, and numerous other means. Production will be graded daily with a participation journal. In addition, numerous products will be displayed and shared throughout the course. A collaborative effort will be made amongst classmates, the art department, and the elementary school ELA department.

Spanish I

1.0 Credit

Using a proficiency-based approach, Spanish I generates a positive learning atmosphere. The development of listening, speaking, reading and writing skills and

[Type here]

culture will lead to draw upon personal experiences to communicate information, attitudes and opinions in acceptable Spanish. New vocabulary and structures will be addressed through pair work, group work and cooperative learning. Activities will encourage critical listening and critical thinking of the language learner.

Spanish II

1.0 Credit

Using a proficiency-based approach, Spanish II expands on the Spanish I objectives to create a positive learning atmosphere. In addition to a systematic review and the expansion of vocabulary, grammar and usage, emphasis is placed on self-expression and reading skills. New vocabulary and grammatical structure will be addressed through pair work, group work, and cooperative learning. Activities will encourage critical listening and critical thinking of the language learner. Students explore various cultural aspects of different Spanish-speaking countries. **Pre-requisite:** Spanish I.

Spanish III

1.0 Credit

Using a proficiency-based approach, Spanish III generates a positive learning atmosphere. The enhancement of listening, speaking, reading and writing skills, as well as the cultural concepts will lead students to draw upon personal experiences to communicate information, attitudes and opinions in acceptable Spanish. New vocabulary and structures will be addressed through pair work, group work and cooperative learning. A review of vocabulary and grammar will be addressed. An emphasis is put on the reading and writing skills with various excerpts of Spanish literature. Activities will encourage critical listening and critical thinking of the language learner. This course is offered for dual enrollment through Penn Highlands Community College. Final grade of 80% or higher in the previous Spanish course **Pre-requisite:** Spanish I and II.

Spanish IV

1.0 Credit

Using a proficiency-based approach, Spanish IV generates a positive learning atmosphere. The enhancement of listening, speaking, reading and writing skills, as well as the cultural concepts will lead to draw upon personal experiences to communicate information, attitudes and opinions in acceptable Spanish. New vocabulary and structures will be addressed through pair work, group work and cooperative learning. A review of vocabulary and grammar will be addressed. An emphasis is put on the reading and writing skills with various excerpts of Spanish literature. Activities will encourage critical listening and critical thinking of the language learner. Internet activities involving Spanish speaking students from other schools and countries will also be included. This course is offered for dual enrollment through Penn Highlands Community College. Final grade of 80% or higher in the previous Spanish course **Pre-requisite:** Spanish I, II, and III.

Keystone Literature

1.0 Credit

Students build upon the skills that they learned in English 9 and 10. Students think, learn, listen, and write critically in order for students develop the skills needed to pass the Keystone Exam. The Keystone exam, as of 2016, is a graduation requirement meaning that all students must pass the exam with a proficient in order to graduate from high school. Keystone literature hones in on the skills that students need in order to pass

[Type here]

the exam. Students will review and display active reading and analyzing key terms in literature while reading and discussing selections of short stories, novels, poems, and Shakespeare. Students will review grammar mechanics and essay writing.

ESL

1.0 Credit

English as a Second Language (ESL) is a scope and sequence course designed to build and develop linguistic proficiency in English for non-native English speakers who, according to accepted test results, demonstrate a lack of ability, proficiency, and/or mastery of academic-use English. Eligible students from pre-K through grade 12 enrolled in ESL instruction are assured a high quality English linguistic learning experience based upon the six language skills: listening, speaking, reading, writing, critical thinking/learning strategies, and culture. The goal of the course is to provide the ESL student with the skills necessary to transition successfully into the mainstream classroom. Objectives, instruction practices, and assessments for the course are built upon national TESOL Standards and Pennsylvania's Academic Standards for Reading, Writing, Speaking, and Listening. ESL students can expect an instruction period of 1-3 hours per day, depending upon test results, which will take the place of a regular English class but not excuse students from other required disciplines in which they are to be assigned, though with required adaptations.

Library Science 7

Students will be introduced to basic universal materials and methods of research using the high school, with information applicable to the use of all libraries.

Independent Reading Grades 9, 10, 11

.33/.34 Credit

Students must, separate from their English classes, independently read books and pass computerized tests on those books, selecting from a list of more than 20,000 titles. Grades are based on the number of reading points earned, with a minimum grade of 60% needed to graduate.

Math Curriculum

Pre-Algebra

Pre-Algebra is the mainstream course for all 7th graders. In this course, students will build a foundation of algebraic concepts needed to advance in mathematics. These concepts include: variables, expressions, solving equations, solving inequalities, combining like terms, graphing, integers, exponents, scientific notation, and operations with rational numbers, displaying/interpreting graphs, patterns, geometric calculations, rates, ratios, proportions, and percentages.

Algebra 1A 7

Algebra 1A 7 is the accelerated course for the 7th grade students. In this course, the content taught correlates with the Module 1 of the Keystone Exam, the Pennsylvania graduation requirement exam. The contents to be mastered include: evaluation expressions, setting up and solving equations, interpreting graphs, elements of functions, percentages, proportions, linear equations, linear functions, exponential operations, and operations of polynomials. **Pre-requisite:** 90% or higher in 5th and 6th grade math, 3 year review of grades 4-6 PSSA scores.

Algebra 1A 8

Algebra 1A 8 is the mainstream course for the 8th grade students. In this course, the content correlates with the Module 1 of the Keystone Exam, the Pennsylvania graduation requirement exam. The contents to be mastered include: evaluation expressions, setting up and solving equations, interpreting graphs, elements of functions, percentages, proportions, linear equations, linear functions, exponential operations, and operations of polynomials.

Algebra 1B 8

1.0 Credit

Algebra 1B 8 is the accelerated course for the 8th grade students. The focus of this course is the content of Module 2 of the Keystone Exam, the Pennsylvania graduation requirement exam. These algebra concepts include: setting up/solving inequalities, interpreting graphs, solving systems of equations and inequalities using multiple methods, solving multi-step equations and quadratic functions using multiple methods and simplifying radicals and polynomial expressions.

Algebra 1B

1.0 Credit

Algebra 1B is the second part of a two year Algebra curriculum. The course is a study of the language, concepts, and techniques of Algebra that will prepare students to approach and solve problems following a logical succession of steps. Skills taught in the course lay the groundwork for upper level mathematics and science courses and have practical uses. Students will solve, graph, write, and interpret linear inequalities. Students will identify, use, describe, graph and write functions, and convert between multiple representations of functions, with a focus on the use of coordinate geometry. Students use data analysis to analyze, calculate, interpret, and make predictions.

Algebra II

1.0 Credit

Students will have ample opportunities, through discovery-based activities, to explore algebraic concepts, and reach closure and assure their understanding by reviewing examples and solving word problems. Students will study topics such as: matrices, quadratic functions, exponential and logarithmic functions, polynomial functions, rational functions, radical functions, and conic sections. Students will understand how the algebraic principles apply to their own lives. **Pre-requisite:** Algebra 1B

Accelerated Algebra II

1.0 Credit

Students will have ample opportunities, through discovery-based activities, to explore algebraic concepts, and then reach closure and assure their understanding by reviewing

[Type here]

examples and solving word problems. Students will study topics such as: linear representations, functions, linear equations and inequalities, matrices, quadratic functions, exponential and logarithmic functions, polynomial functions, rational functions and radical functions and conic sections. Students will understand how the algebraic principles apply to their own lives. Students will also do long term projects to help solidify what was learned in the chapters. Pre-requisite: 80% or higher in Accelerated Algebra 1B, 80% or higher in Accelerated Geometry, pass the Keystone Algebra 1 exam.

Keystone Algebra

1.0 Credit

This course will strengthen students Algebra 1 skills. The course reviews the concepts from Algebra 1A and Algebra 1B that are needed to help student's succeed on the Keystone exam.

Geometry

1.0 Credit

Students will have ample opportunities, through discovery-based activities, to explore geometric concepts, and then reach closure and assure their understanding by reviewing examples and formalizing theorems. Students will study topics such as: relationships between angles, congruence, direct proofs, parallel lines, polygons, circles, coordinate geometry, area and volume of two-dimensional figures and three-dimensional figures, ratio and proportions, and some trigonometry basics. Students will understand how geometric principles apply to their own lives.

Prerequisite: Algebra 1B

Accelerated Geometry

1.0 Credit

Students will have ample opportunities, through discovery-based activities, to explore geometric concepts, and then reach closure and assure their understanding by reviewing examples and formalizing theorems. Students will study topics such as: relationships between angles, congruence, direct proofs, parallel lines, polygons, similarity, circles, coordinate geometry, area and volume of two-dimensional figures and three-dimensional figures, ratio and proportions, and some trigonometry basics. Students will understand how geometric principles apply to their own lives. Students will also do long term projects to help solidify what was learned in the chapters. **Pre-requisite:** Pass the Keystone Algebra 1 exam and 90% or higher in Algebra 1B.

College Algebra

1.0 Credit

This course is designed to give a firm foundation to those students who may pursue mathematics or a science curriculum at a college level. Coverage includes various algebraic equations and inequalities. There are two units on relations, functions, and their graphs; and polynomial and rational functions. There is a unit on exponential and logarithmic functions, systems, analytic geometry and sequence and series. Three college credits for this course are available through Mount Aloysius or Penn Highlands Community College for a tuition fee. **Pre-requisites:** Pass the Keystone Algebra 1 exam and 75% or higher in Algebra 2.

Pre-Calculus/Trigonometry

1.0 Credit

This course is intended to provide the mathematical background needed for calculus. It is the culmination of the study of functions prior to calculus. The successful student will complete a detailed study of functions and models, study of specific functions including powers, exponentials, logarithms, rational functions, and trigonometric functions and demonstrate understanding of each, along with an in-depth study of trigonometric identities. In addition, a successful student will be able to model functions and apply the models to concrete settings. After taking this course, a student will have the foundation needed to study calculus or a mathematics based degree. Three college credits for this course are available through Penn Highlands Community College for a tuition fee. **Pre-requisites:** Pass the Keystone Algebra 1 exam and 80% or higher in Algebra 2 or pass College Algebra.

Calculus

1.0 Credit

This course is designed to give a firm foundation to those students who plan to pursue mathematics or a science curriculum at a college level. Coverage includes a brief review of algebra, functions, limits, differentiation and its applications, integration and its applications, and integration and differentiation using trigonometric functions. Students will also do projects to help solidify what was learned. Four college credits for this course are available through Mount Aloysius or Penn Highlands.

Pre-requisites: Passing the Algebra Keystone

Earn at least a final grade of at least ninety percent in College Algebra and/or Pre-Calculus/Trigonometry.

Personal Finance

.25 Credit

Personal Finance is a general knowledge course intended to be taken a student's senior year. By the end of the course, the student will be financially literate and have the knowledge to be financially secure today and in the future. They will have knowledge, skills, and confidence to take charge of their financial future. Real world topics will be covered that include but are not limited to income, money management, spending and credit, saving and investing.

Accounting I

1.0 Credit

Accounting is a one year course which introduces the complete accounting cycle to students who: are considering pursuing a career in the accounting field, wish to obtain a basic knowledge of accounting to enhance other occupations, wish to enter the job market with basic skills, or want to apply it to their personal use. The objective is to develop an understanding of the vocabulary, principles and theory as a foundation to enable them to adapt to accounting systems they may encounter in post-secondary education or their personal needs. This course may be taken for 3 college credits through Penn Highlands Community College for a tuition fee

Science Curriculum

Science 7

Science 7 is a general science course with an integrated hands on approach to science using the FOSS program, a brain researched/age appropriate science program. FOSS engages students in scientific and engineering practices. Students construct an understanding of science concepts through their own investigations and analyses, using laboratory equipment, student readings, and interactive technology. The major units include: Force in Motion (exploring basic concepts in physics), and Chemical Interactions (students are introduced to the periodic table, the building blocks of atoms, and learn to view the world on the particle level). In both units, Student exercise logical thinking and decision making skills appropriate to their age levels.

Science 8

This course is a general science class which incorporates three strands from the FOSS science program. FOSS is an active-learning science program that is correlated to student's cognitive development. Students learn through direct experiences in which they describe, sort, and organize observations about objects and organisms. Major units of study include: Populations and Ecosystems (explores ecosystems as the largest organizational unit of life on Earth, defined by its physical environment, and the organisms that live in the physical environment); Planetary Science (students endeavor to understand the Moon, the Sun, the solar system with all its planets and lesser objects, the Milky Way, and vastness of the cosmos): and Earth History (students study the processes that create sedimentary, igneous and metamorphic rocks and organize their observations and inferences into the Rock Cycle; students use the knowledge and data gained from observing rocks to make inferences about organisms, environments, and events that occurred over Earth's history).

Science 9

1 Credit

This course is taught using the Foundations of Physical Science, with Earth Science textbook. The course is an integrated approach that includes topics in weather and climate, measurement, introductory chemistry, water, and astronomy. The class is based on the Pennsylvania Science Standards for Earth Science, Chemistry, and Biology.

Biology I w/lab

1.33 Credit

Biology I is a rigorous standard based study devoted to the study of living things and their processes that integrates hands on laboratory activities, and cooperative learning opportunities with the text materials that teach important science concepts. Throughout the year, this course provides opportunity for students to develop scientific process skills, laboratory techniques, and an understanding of fundamental principles of living organisms. Content is built around major biological concepts such as biochemistry and the biology of cells, cell structure and function, genetics, heredity, growth and development, classification, diversity of living organisms and their ecological roles, and an introduction to animal structure and function.

Biology II (A&P 1)

1.0 Credit

This course is designed to provide an understanding of the structure and function of the human body. Basic concepts, including chemistry, cytology, and histology, are

emphasized. The following systems are studied in detail: integumentary, skeletal, muscular, and nervous. Laboratory exercises involve related micro- and gross anatomy exercises.

A&P 2

1.0 Credit

A continuation of A&P 1 that presents the structure and maintenance function of the cardiovascular, lymphatic, respiratory, digestive and urinary systems. Control of functions by the endocrine and autonomic nervous systems is explored. The reproductive systems and special senses are included. **Prerequisite:** Biology 2 (A&P 1)

Chemistry 1

1.0 Credit

Chemistry 1 provides a background in the factual basis and principles in chemistry. Students will explore chemical phenomena and principles with the emphasis on developing an understanding of chemistry, its application, and foster critical thinking. This course includes the study of matter, measurements, atoms, molecules, ions, nomenclature, chemical reactions and equations, stoichiometry, chemical bonds and structures. Students will demonstrate and observe chemistry through laboratory experiments.

Chemistry 2

1.0 Credit

Chemistry 2 is a continuation of Chemistry 1. Students will continue to explore chemical phenomena and principles with the emphasis on developing an understanding of chemistry, its application, and foster critical thinking. This course includes the study of reactions and properties of solutions; discusses equilibrium in the gaseous and liquid phases, chemical kinetics, acid-base theory, oxidation and reduction and organic chemistry. Students will demonstrate observe chemistry through laboratory experiments. Pre-requisite: Successful completion of Chemistry 1.

Academic Physics

1.0 Credit

Academic physics is an algebra based college-prep course in physics. The course includes mathematical and theoretical exploration into topics including measurement, one and two dimensional motion, forces, work and energy, rotational motion, waves and light. **Pre-requisite:** Trigonometry is recommended, but not required.

Principles of Technology 1

1.0 Credit

Principles of Technology 1 is a conceptual, hands on course that is less math intensive than a traditional physics course. The topics addressed include: forces and motion, work and power, efficiency, momentum and properties of fluids and solids. Class projects include toothpick bridges, egg droppers, paper cars, and foil boats.

Principles of Technology 2

1.0 Credit

Principles of Technology II is a conceptual, hands on course that is less math intensive than a traditional physics course. Topics addressed include: electricity and magnetism, torque, energy resources present and future, heat and temperature, and waves. Class projects include: Rube Goldberg Machines, mobiles, and model wind mill blades.

Social Studies Curriculum

Geography/PA History

This course reviews basic geographic terms and skills. It also looks closely at the physical and cultural geography of North America, Central America, South America, and Europe. The course also has a unit of PA History where students look at the events and people that shaped PA History.

American History I

This course examines the history of the United States from its beginnings. The course will also look at European colonization of the Americas. We will also look at and follow the development of the 13 colonies into the United States of America. Finally, the course will examine the expansion of the US up to and including the Civil War.

American History II

1.0 Credit

American History II examines the major turning points in American history beginning with the Civil War Reconstruction, the impact of westward expansion into the frontier, the growth of American industry, the American Imperialism era, World War I, the Great Depression, World War II, and the growth of the United States as a world power. The course also examines the growth of our nation through political, economic, and social points of view. Students will be able to analyze the events that shaped our nation into the modern world power the United States is today.

Civics and Government

1.0 Credit

American Government is designed to meet the needs of students by providing each student with understanding of civic life, politics, and government. It will help students understand the workings of their own political systems as well as the relationships of American politics and government to world affairs.

Global Studies

1.0 Credit

This course studies major events in world history starting with the Italian renaissance and going up to the end of World War II. Students will study the lasting impact of major world movements such as the reformation, nationalism, and imperialism. After taking this course, students will have a better understanding of the world around us the events which have led to the present.

Economics/American Cultures III

1.0 Credit

This course is designed to allow students to better understand their government and the way it operates. Students will study the U.S. Constitution and its amendments

learning how it structures the activities of the U.S. Government. Students will also learn the roles each branch of government plays in our democracy. Finally, students will gain knowledge of how to participate in government at local, state, and federal levels. Economics provides students with the opportunity to study economic principles which govern both individuals and complex economics. Students will learn key concepts dealing with microeconomics and macroeconomics. They will be able to examine processes by which the world's economy supplies individual wants and needs.

Psychology

1.0 Credit

Students in this class will examine human behavior and the causes of that behavior. Topics include brain structures and their functions, the senses, memory, learning, psychological disorders, treatments and social influences. Whether or not this class is offered for college credit, students who take it should find themselves well prepared for an introductory psychology class in college. This is not an easy class, and it requires the writing of a properly formatted research paper in the spring.

Specials/Electives

Physical Education

.34 Credit Grade 10/5 Credit all Others

Physical Education is a class that will familiarize the students with a wide variety of team sports, individual sports, and lifetime sports. This class will encourage cardiovascular fitness, muscular strength, flexibility, and heart and lung endurance. The class will develop the individual's physical, mental, and social/emotional growth. Physical education will encourage students to develop a network support system including the students in their class. Students will develop cooperation skills, citizenship skills, and self-control skills. The class will encourage the participation in lifetime sports and also put emphasis on cooperation, tolerance, leadership, fair play, and honesty, which will be carried throughout one's lifetime. The course will consist of the following units: Aerobics, physical fitness, touch football, basketball, volleyball, softball, wiffleball, recreational games and fitness testing. There will also be lessons dealing with the effects of Drugs and Alcohol, and the three major parts of health.

Music 7

7th grade general music is a required specials rotation class that meets every day for nine weeks. In this class students will reinforce knowledge of musical terms and music theory learned through grade 6, explore cinematic music, musical instruments, music technology, to appreciate music from other cultures, and to relate musical knowledge to everyday life.

Music 8

General Music 8 will touch many different aspects of music to help students grow not only a better knowledge of music, but have more respect for all music. Students will learn about reading rhythms and notes, basics of musicals, beatboxing, rapping, and programmatic music. The course culminates with a big class project of creating a 2-3 minute play in the style of STOMP.

Junior High Chorus

0.5 Credit

This is a yearlong course that explores choral music from a wide variety of cultures and time periods through study and performance. The class emphasizes the basics of vocal technique, sight reading, music theory, and music history. Students in junior high chorus are expected to participate in two in-school holiday concerts, one evening holiday concert, and one evening spring concert.

Senior High Chorus

0.5 Credit

This is a course that explores choral music from a wide variety of cultures and time periods through study and performance. The class builds upon the skills of vocal technique, sight-reading, music theory, and music history. Students in senior high chorus are expected to participate in two in-school holiday concerts, one evening holiday concert, and one evening spring concert. There may be other performance opportunities throughout the year.

Junior High Band

0.5 Credit

Junior High Band is an instrumental ensemble for students in grades 7 and 8. Students must have prior knowledge of how to perform on their instrument from the elementary school. All Junior High band members are required to be in marching band and concert band. All Junior High band students must complete 7 instrumental lessons each nine weeks as part of their band grade, as well as attend the winter and spring band concert performance.

Senior High Band

0.5 Credit

Senior High Band is an instrumental ensemble for students in grades 9 through 12. Students must have prior knowledge of how to perform on their instrument. All students must participate in both marching band (band member, color guard, or majorette) and concert band. 9th grade students must complete 7 instrumental lessons each nine weeks as part of their band grade. All Senior High band students must participate in the winter and spring concerts.

Marching Band

Marching Band is an instrumental ensemble for students in grades 7 through 12. Students will learn three pieces for a halftime show, as well as music for other various events. All marching band members must attend one week of music camp, as well as three weeks of band camp, where students will learn how to march and drill for the halftime show. Students will also practice for various parades and events that will be taking place during the season.

Art 7

Seventh Grade Art is designed to build upon the skills an curriculum from the elementary art program. Students will review line, shape, color, pattern, texture and form as well as create balanced compositions, an in-depth study of one point perspective and a study of movement in art. Students will also be introduced to artists, contemporary and throughout history. This course is organized into six units: Drawing, Positive and Negative Space Collage, Self Portrait, Ceramic Masks, American Gothic Parody, Acrylic Landscape Painting, and City Scapes—1pt Perspective Blocks.

Art 8

Eighth Grade Art is designed to enrich students understanding of the elements and principles of design as well as art history and aesthetics. Students will work on developing their drawing skills, critical thinking, and self-evaluation. Students will be introduced to artists, contemporary and throughout history. They will take an in-depth look at art movements ranging from Surrealism to Pop Art. The course is organized into six units: Drawing, Painting, Self Portrait, Ceramics and Paper Mache Sculpture.

Art 9

1.0 Credit

Art 9 reviews the elements and principles of design, includes lectures and studio instruction about various artists, and art movements. Students will demonstrate their skills by participating in group assignments, production of individual works, and cross curriculum lessons that deal with math, science and English. The emphasis will be on

an application and experimentation of various types of media as well as using computer technologies in researching art history, imaging and building a portfolio.

3 Dimensional Design

1.0 Credit

Three Dimensional Design was created to explore various techniques, technologies, and media in a sculptural form. Students will research and demonstrate an understanding of three dimensional design through production, critiques of their own art work and discussions about aesthetics. There will be an emphasis on building techniques in clay, wood and fiber art. Students will be responsible in keeping a sketch book and portfolio for the completion of the course.

Visual Arts I

1.0 Credit

Visual Arts I is a more in depth study of the elements and principles of design as well as, additional exploration into techniques and different medias not previously taught in Art 9. Students will be responsible in creating a portfolio and keeping a sketch book for the duration of the course. Students will research and demonstrate an understanding of two dimensional design through production, critiques of their own work and discussions about aesthetics.

Visual Arts II

1.0 Credit

This course further develops the skills learned in Visual Arts I with a more sophisticated study of the elements and principles of design as well as, an additional exploration into techniques and different medias not previously taught in Visual Arts I. An introductory level of Photoshop will serve as a tool in building a student art portfolio, with the goal of an ongoing production process in Visual Arts III. Students will research and demonstrate an understanding of two dimensional design through production, critiques of their own work and discussions about aesthetics. Students will be responsible in creating a portfolio and keeping a sketch book for the duration of the course.

Visual Arts III

1.0 Credit

Visual Arts III develops the skills learned in Visual Arts II with a more refined study of the elements and principles of design as well as an additional exploration of into techniques and different medias not previously taught in Visual Arts II. Students will develop a higher skill level in the program Photoshop. Students will research and demonstrate an understanding of two dimensional design through production, critiques of their own work and discussions about aesthetics. Students will be responsible in creating a portfolio and keeping a sketch book for the duration of the course.

Family and Consumer Sciences I

1.0 Credit

This high school elective class meets for an entire school year and is broken down into four main sections: Interior Design, Sewing, Food, and Child Development. Students will complete multiple projects highlighting their knowledge of interior design, machine sewing techniques, and prepare various foods in a safe and sanitary lab setting.

Family and Consumer Sciences II/III

1.0 Credit

This high school elective class meets for an entire school year and is a continuation of FCS I. The class is broken down into 4 main sections and changes based on odd and even school years: even years, Food & Nutrition, Sewing, Child Development and Event Planning; odd years, Food & Nutrition, Sewing, Child Development and Teen/Family Living. While the sections, specific topics and projects in that section will vary each year. Pre-requisites: FCS I.

7th Grade Family and Consumer Sciences

Throughout one nine week marking period, students will learn the basics of hand sewing and food safety and sanitation. The first half of the making period will focus on basic sewing skills with the completion of button sewing and a simple pillow project. The second half of the nine weeks will focus on the importance of kitchen safety and sanitation with the completion of two food lab

8th Grade Family and Consumer Sciences

This nine week course focuses on basic machine sewing, and food safety and sanitation skills learned in 7th grade FCS. Similarly, the course is broken into two sections: sewing and foods. A review of skills learned in 7th grade occurs before moving onto more advanced sewing techniques and an introduction to the sewing machine. More advanced food prep is also displayed in the completion of two food labs.

Careers Exploration 9

0.25 Credit

Throughout this course, students will focus on the process of understanding and achieving success in today's work force. Students will explore potential future careers, experience the steps of applying for a job and the interview process, and learn basic financial management skills.

Character Education 8

Throughout this course, students will focus on the ethics and formation of character in people based on the 6 Pillars of Character. Topics such as leadership and teamwork, relationships, and role models will be looked at in detail and in relationship to the 6 pillars.

11th and 12th Grade Seminar

.25 Credit

11th and 12th Grade Seminar is a one year course where students will explore careers, learn about financial literacy, and discover the role that entrepreneurship can have in their lives. Students use discovery and decision-making processes to match their unique characteristics to appropriate careers. This course emphasizes the importance of planning for your future, developing an academic plan, communicating with other, and analyzing mathematical and financial information.

12th Grade Seminar

.25 Credit

Class will expand upon the career and college guidance provided in the 11th Grade Seminar but will focus primarily upon providing students with the tools needed to locate and cite reliable sources of information whether for personal use or academic study.

Driver's Education

.33 Credit

Learning activities will focus on preparing the prospective driver to develop vehicle operational skills. The course will consist of the in-class requirements for Highway Safety/Driver's Education. Students will complete classroom assignments, activities, and tests on the following subjects: obtaining and Learner's Permit and Driver's License in PA; the seriousness of driving and the risks involved; the importance of safety belts and other occupant protection; how substances affect the decision making process and reaction time; laws, signs and symbols; driving techniques; overall perception of the road; and S.E.E. (See, Evaluate, and Execute).

Admiral Peary Area Vocational-Technical School Admissions Policy

Admiral Peary Area Vocational-Technical School offers fourteen programs of study. Application for admission is based on the completion of 10th grade (with the exception of Cosmetology, students must complete 9th grade), including acquiring all credits required for graduation, and the completion of application procedures at the participating sending school. Students applying are evaluated at Admiral Peary by the Guidance Department on interests, abilities, aptitudes, and learning styles prior to entering. As with any course, a strong academic background is advantageous. Test results along with student interests are used to determine appropriate program placement. For a student to obtain the most of his/her vocational career, it is stressed that they apply in their sophomore year (with the exception of cosmetology). All other grade levels will be considered through the Guidance Departments.

Placement in Admiral Peary programs is based on quotas. Each participating school receives a quota of the openings available for the following school year. This quota is based on the numerical enrollment of each of the schools, but is interchangeable between schools contingent upon the number of applicants for each program from each school. Enrollment at Admiral Peary AVTS is limited to 25 students per session in each program.

Students will spend one-half day at Admiral Peary AVTS and the other at their home school district where they receive the required subjects that are necessary for graduation as specified by the Pennsylvania Department of Education.

Admiral Peary AVTS and participating schools shall not discriminate in the counseling process for admission because of sex, race, or handicap. Students, parents, or guardians are granted the right to appeal or make their concerns known by using the procedures developed and positioned in policy at Admiral Peary AVTS set forth by Title IX and Section 504.

Admiral Peary Area Vocational-Technical School Program Descriptions

Small Engine Mechanics

The Small Engine Mechanics Program prepares students to apply technical knowledge and skills to repair, service, maintain and diagnose problems on a variety of small internal combustion gasoline engines and related systems used on portable power equipment such as lawn and garden equipment, chain saws, outboard motors, rototillers, snowmobiles, lawn mowers, motorcycles, personal watercraft and pumps and generators. This program includes instruction in the principles of the internal combustion engine and all systems related to the powered unit. Instruction also includes the use of technical and service manuals, state inspection code, care and use of tools and test equipment, engine tune up and maintenance, engine overhaul, troubleshooting and diagnostic techniques, drive lines and propulsion systems, electrical and electronic systems, suspension and steering systems, service operations and parts management.

1

Automotive Body/Collision Repair

In the Automotive Body Repair program, students learn the skills necessary to repair, reconstruct, and refinish automobile or truck bodies and external features. Instruction includes the use of hand and power tools for repair; MIG welding; frame straightening; spray painting; finishing techniques; estimating; shop management; hazardous material handling and detailing.

Auto Technology

Today's automotive technicians must have an open mind with the constant changes in this field of work. With the rush of alternate fuels being tested, individuals need to continually upgrade their skills. In our Automotive Technology program, students will become proficient in diagnosis and repair of many systems of the modern automobile. This program has the following equipment: Hunter BL-505 brake lathe,

Ammco 4000 brake lathe, Hunter OCL-400 (on-car brake lathe), Hunter 811 photo-electric four wheel alignment system, Hunter GSP-9700 road force wheel balancer, Snap-on MODIS, SUN machine 500E, Snap-on Solus-pro, Snap-on scanner, Snap-on fuel care system, Midtronics 500 battery, starting, and charging system tester, and many more. Instructional areas include but are not limited to: General maintenance, brakes, steering, suspension, electrical/electronic systems, engine performance, engine emissions, mechanical engine repair, engine cooling and lubrication, heating and air conditioning, drive train service, OBDII and CAN systems.

Carpentry

The Carpentry program is designed to prepare students for construction and finish carpentry. Students are trained to construct, erect, install, and repair structures of wood using hand and power tools. Instruction includes systems of framing, types of construction materials, estimating, layout and design of structure, and finish carpentry techniques. Students gain experience by constructing wooden sheds, framing doors and windows, and constructing projects for people in the community. After achieving the skills necessary in rough and finish carpentry, students advance to cabinetmaking, which requires more precise skills. Projects completed may be bookshelves, entertainment centers, and kitchen cabinets. Students also have the opportunity to put their skills to work in actually constructing a modular home. Students take part in every phase of construction.

Early Childhood

The Early Childhood Teacher Education program prepares students to work with young children in a variety of settings that require an understanding of how children grow, learn, and develop. The program includes instruction in growth and development; nutrition; program planning and management; safety; behavior guidance; play activities; child abuse and neglect; parent-child personal relationships; learning experiences for children; and laws, regulations and policies relating to child care

services. The program prepares students to enter the workforce or continue their education in career areas related to childcare and education.

Networking Technology

The Networking Technology program teaches students how to design, build, and maintain computer networks. The program is centered on the A+ Certification and the Cisco Systems Networking Academy programs. Networking Technology integrates a web-based with a hands-on curriculum, teaching internet and technology literacy along with computer and network technical skills. Students will acquire the necessary skills to perform entry level computer technician duties including: upgrading and installing operating systems and application programs; configuring and installing hardware devices and peripherals; and general troubleshooting techniques. A large part of the curriculum is dedicated to the basic fundamentals of networking, configuring, maintaining, and troubleshooting network equipment such as switches and routers. Upon completion of this program, the students will have the knowledge to obtain A+, and Cisco CCNA certifications.

Electrical Technology

The Electrical Technology program prepares students to install, maintain, and service electrical equipment used in control applications, commercial, industrial and residential wiring, and programmable logic control systems. Instruction includes the fundamentals of direct current and alternating current. Students in this program work with magnetic, solid state and programmable motor controls, learn the National Electric Code along with commercial, industrial, and residential wiring methods. Upon completion of the program students may pursue higher education or enter the workforce in Electrical fields.

Cosmetology

The Cosmetology program prepares students to work in the cosmetology/beauty service industry. Students who are interested in becoming a licensed cosmetologist upon graduation must be enrolled in the program for three years. The Pennsylvania State Board of Cosmetology requires that students complete ninth grade before enrolling into the program. It is a state mandate that students accumulate 1250 hours

to qualify as a candidate for examination and licensure with the Pennsylvania State Board of

Cosmetology. Instruction includes but is not limited to basic skills needed in the care of hair, skin, and nails. Emphasis is placed on cutting, permanent waving, coloring, and styling of hair. Students also develop skills in manicuring, artificial nail application, nail art, make-up application and specialized skin care. These particular areas of study shall qualify the student as a candidate for fragmented licensure, allowing the limited practice

of nail care or skin care only. Good communication skills are stressed, which are necessary to work with the public

Culinary Arts

The Food Service & Management program provides students with the opportunity to learn culinary techniques and the practical application of all facets of food service. Students are trained for entry level employment in commercial, institutional, or self-owned food establishments. Instruction and learning include theory, lab, and work experiences related to proper selection, preparation, cooking and serving of quantity foods from fast food to banquet service. Nutrition, industry laws and regulations, safety, sanitation, and use/care of equipment, and hand tools are also emphasized.

Health Assisting

This program prepares students to enter the health field on an assistant level. Instruction is given in bedside, sterilizing, and disinfecting procedures. Vital signs, anatomy and physiology, clerical duties, medical terminology, and assisting professional health care workers are covered. Students will also be certified in first aid and CPR. For students enrolled in the Nurse Assistant component of the course, a one-week (40 hour) clinical is mandated by the Pennsylvania Department of Education. Students must have completed the necessary coursework and have good attendance to participate in the clinical experience. Students who successfully complete all requirements of the Nurse Assistant component will be eligible to take the CNA examination upon graduation. Students interested in other assistant occupations may also participate in the clinical experience, provided all necessary coursework is completed and they have good attendance. This course also prepares students who may be interested in furthering their education in the health care field with introductory skills and knowledge.

Heating Ventilation/Air Conditioning

The HVAC/P program provides the fundamentals of installation, repair, and maintenance of equipment and accessory parts used for heating, air conditioning, and cooling systems. Instruction includes basic electricity, plumbing, connecting ducts, refrigerant lines, and electrical hookups, the use of torches, electric meters, testing equipment, gauges, and hand tools. In addition, students learn to diagnose unit breakdowns, disassemble and reassemble systems, and recycle refrigerants for environmental control. Students are introduced to direct digital control methods used in total management systems, also hot water boilers, central air-conditioning, and heat pump installation and servicing. The program also includes basic installations of residential plumbing that enables the students to demonstrate soldering copper, waste and vent layout, sewage systems, and water distribution systems, rough in bath and kitchen fixtures. Students will join piping to fixtures and learn system maintenance and repair of all heating hot water installations.

Engineering Technology

The Engineering Technology program incorporates a variety of engineering and machining concepts. Students will receive background information on tools and materials used in metal working occupations, and they will learn state of the art machining processes. The program will mainly focus on engineering concepts and computer aided machining and modeling. Students will engage in problem solving activities and projects that will incorporate such machines as the CNC mill, CNC lathe, laser engraver, and 3D modeler. In addition, students will learn a variety of mechanical engineering concepts using a mechanical-drives trainer, a material tester, and a variety of other machines. Engineering Technology is a highly technological program geared for students seeking a post-secondary education in engineering and also for students who plan to obtain entry level employment in the manufacturing industry.

Masonry

In the Masonry program students develop the skills necessary to become block layers, bricklayers, stonemasons, and cement masons. Students learn the process of the planning and layout of structures; mortar mixing and spreading; cutting, laying, and joining bricks, concrete blocks, and glass blocks in the construction of fireplaces,

chimneys, walls, partitions, steps, and other structures. Instruction also includes the use of hand tools such as levels, hammers, chisels, trowels, striking irons, and a sled runner. In addition, blueprint reading; planning; estimating; placing; and finishing concrete, are included in the program. Students will also receive additional experience working on community projects.

Welding

The Welding program prepares students with the skills necessary for jobs as welders, cutters, and welding machine operators. Instruction includes blueprint reading, metallurgy, flat, vertical, horizontal, and overhead welding techniques using the various welding/cutting processes: electric arc welding (SMAW), oxyacetylene welding/brazing, MIG, TIG, GMAW, FCAW, submerged arc welding, carbon arc gouging, and plasma cutting. Code welding and cutting standards are emphasized. Welding students have the opportunity to participate in the AWS certification competition.

