JERSEY SHORE AREA SENIOR HIGH SCHOOL

2021-2022 Pathways Course Catalog

Arts and Media Technology Business, Finance, & Information Technology Engineering & Industrial Technology Health & Science Technology Human Services

Curriculum Guide – Course Descriptions

Art

7000 **Introduction to Art**

Introduction to art is designed to give students a broad experience in two dimensional and three dimensional art. Students will learn and use the elements and principles of art in a variety of media (paint, pastel, colored pencil, plaster, etc.). Assignments are designed to challenge, exercise creative muscle, and broaden artistic experience. This class will give students an excellent foundation for continuing their education in the art industry or communication technology pathway. All projects must be completed in order to receive credit for this course.

7101 Learning to Draw

Anyone can learn how to draw. With practice and a desire to learn, students who have no drawing skills can become excellent artists. This is an introductory course on drawing. Students will start from very basic techniques and applications advancing slowly and methodically to more advanced methods. They will work from nature, still life and people in a variety of media; exploring qualities of line, texture, light and space. All grade levels are allowed to sign up for this class. All projects must be completed in order to receive credit for this course.

7135 Sculpture

Students will create a wide range of sculptures using various materials, tools and techniques. Clay sculpting will be a large part of the class and will supplement any pottery classes that students may take. Materials will range from clay, wood, stone, plaster, and drywall. All projects must be completed in order to receive credit for this course.

7160 **Commercial Art**

In this course students use fine art and design skills to create and communicate in various areas of commercial design. This may include product design, storyboards and illustrations, fashion design, and interior design. Students will explore the creative planning involved in creating commercial concepts/ This course will give students an excellent foundation of skills to continue their education in the arts and communications technology pathway. All projects must be completed in order to receive credit for this class.

7100 Learning to Paint

This is an introductory painting course. Students will use water-based paints including acrylic, watercolor and tempera. Using a variety of brushes and techniques, students will create paintings that range from realistic to abstract. You must be in grades 10, 11 or 12. All projects must be completed in order to receive credit for this course.

7001 Art and Design

This course is designed for those students who wish to develop their artistic skills further. Students will focus on the use of the Elements and Principles of Arts to develop an understanding of the creative process involved in producing art. Projects will give the student a chance to work with a variety of media and subject matter. All projects must be completed in order to receive credit for this class.

Grade 10-12 .50 credit

Grade 9 .50 credit

.50 credit

.50 credit

.50 credit

.50 credit

Grade 9-12

Grade 9-12

Grade 9-12

Grade 10-12

7005 Mixed Media

This hands on design course will encourage a sense of exploration and broaden thinking patterns by combining and manipulating traditional and non-traditional art materials and techniques. Projects will refine skills and stimulate the innovative use of materials such as paint, fiber, paper, dyes, wire, glass and found objects while combining them with techniques such as glazing, sponging, embossing, printing and collage. This is a course for students who enjoy the challenge of experimenting with new techniques, materials and creative compositional strategies. Students will make informed design choices and improve creative thinking skills while producing original and imaginative artwork.

7016 Stage and Set Design

This course presents the student with a variety of opportunities to learn the basics of set design for productions such as plays, video, concerts, award ceremonies, etc. Work will be done on full stage productions as well as for smaller settings. The design of props, makeup, lighting, sound effects, costumes, and special effects will also be done. The student will also have the opportunity to specialize in areas of interest. All projects must be completed in order to receive credit for this course.

7022 Fiber Crafts

This course explores the craft of using fibers such as paper, fabrics, year/string, and other fibers to create pieces of art. Some of the areas students will be working in are weaving, silk painting, book design/paper binding, basketry, and batik. All projects must be completed in order to receive credit for this course.

7023 Glass Crafts

This course explores the areas of Crafts specializing in fabricating items out of glass. Students will learn basic glass design, cutting, soldering, and warm glass techniques as they create both 2D and 3D glass projects. Other areas the students will be working in include candle, making, fused glass, slumped glass, jewelry-making, utilizing Photoshop in design planning, and the use of recycling in art. All projects must be completed in order to receive credit for this course.

7031 Pottery 1

This course introduces the beginning student to the basics of pottery, wheel throwing and hand building, as well as a general understanding of glazing and firing of electric kilns. All projects must be completed during the semester for credit.

7032 Pottery 2

(Prerequisite: Pottery 1)

This course introduces the student to advanced techniques in wheel throwing and hand building. Students at this stage are encouraged to adapt projects and individualization is encouraged. All projects must be completed during the semester for credit.

7033 Pottery 3

(Prerequisite: Pottery 2)

This course is for the student who has a good working knowledge of wheel throwing and is interested in advanced techniques and projects on the potters' wheel. There will also be opportunities for the interested student to work in advanced sculpture and hand building problems. All projects must be completed during the semester for credit.

.50 credit

.50 credit

Art

Grade 10-12 .50 credit

Grade 10-12

Grade 10-12

Grade 10-12 .50 credit

Grade 10-12 .50 credit

Grade 10-12 .50 credit

Grade 11-12 .50 credit

Business, Finance and Information Technologies

Business, Finance and Information Technologies is a path to a successful career. The demand for persons with business skills is constantly growing, especially in the accounting/finance, marketing, administrative assistant, and technology-related fields. Business and Computer Technologies allow students to do the following: (1) develop life skills needed by all consumers; (2) prepare for both college, employment, and personal finances; (3) acquire lifelong skills and habits to apply to a career; (4) broaden life-long work and study options; (5) pretest career interests before going to college; and (6) provide an opportunity to apply academic content. The courses offered by the Business and Computer Technologies Department are designed to provide the skills and competencies that will be used in a variety of careers as well as student's personal lives. *Any student may elect business courses.*

2178 Business Math

This course involves such concepts as interest, discounts, purchasing, selling, tax computations, commissions, insurance, investments, and financial institutions. By learning this type of material, the student will become more efficient, effective, and competent in the type of math used in the real world by both business people and consumers. This course is accepted as a math credit.

4202 Business Finance (Required for Graduation)

Personal Finance and Business Applications introduces students to the business concepts and skills required in today's marketplace. Students need to have a basic understanding of business principles, computer applications, and personal finance to become productive members of the workforce. The intent of the course is to inform students of their various financial responsibilities and to provide them with opportunities for self-awareness, expression, and satisfaction in a highly technical and competitive society.

4212Principles of Management (MGT105)Grade 11-121.0creditDual Enrollment option available

Introduction to the topic of management, defined as the process of setting and achieving organizational goals, effectively and efficiently, through the use of human and other resources. The four functions of management - planning, organizing, leading, and controlling - provide a framework for the course and are examined in considerable detail. Emphasis on contemporary management issues such as diversity and recognition of the changing face of the American workforce; ethics and social responsibility and their increasingly important role for business; and the growing significance of international business.

NOTE: This course is a Lackawanna College Dual Enrollment Course. Registered students will receive Three (3) College Credits through Lackawanna College upon successfully completing the requirements of the course. There is a cost associated with Lackawanna College Course of \$100 per credit. This cost is non-refundable. Registration and payment are due prior to the first day of school.

4210 Introduction to Business

This course is highly recommended to all students! The course is designed as an introduction to some of the business courses offered at the high school. Students can use this course to help them find a possible career or interest area. This is a good course for those who will enter any field of business, and for everyone else who will ever have to make decisions involving money. Considerable time will also be spent in the microcomputer lab using software to supplement the regular classroom instruction. "Intro" can make the difference in your future.

Grade 9-12 1.0 credit

Grade 11-12 .50 credit

1.0 credit

Grade 11-12

4342Accounting 1

This course is designed to equip the student with the professional skills that will enable him or her to work in the fields of accounting or bookkeeping. Many job opportunities exist in these fields. The student receives training in each step of the accounting cycle from journalizing through the end-of-month work, to the preparing of financial statements used by management. Accounting is the backbone of any business structure and is highly recommended for any student considering a career in the business field. Basic computerized accounting applications will now be integrated into Accounting 1. (After this course it is recommended that you take 4341 (ACC113) followed by 4346 (ACC123) if you are interested in a business or accounting career.)

4343 Accounting 2

Prerequisite: Accounting 1

This is an advanced course primarily designed to help the student prepare for a career in the rewarding field of accounting. It includes interesting and important concepts such as depreciation, accruals, deferrals, inventory and cash control, corporate and managerial accounting, etc. Computerized accounting problems will be used as well as spreadsheet problems.

4345 Financial Accounting Dual Enrollment option available

(Prerequisite Accounting 1 & 2)

Basic principles and applications of financial accounting used in business practices will be explored to develop student understanding. Preparation and interpretation of financial information are emphasized. Course work provides the accounting knowledge necessary for success in more advanced accounting courses and in the business field.

NOTE: This course is a Lackawanna College Dual Enrollment Course. Registered students will receive Three (3) College Credits through Lackawanna College upon successfully completing the requirements of the course. There is a cost associated with Lackawanna College Course of \$100 per credit. This cost is non-refundable. Registration and payment are due prior to the first day of school.

4381Business Leadership and ManagementYearGrade 11-121.0 credit4382Business Leadership and ManagementSemester 1.50 credit

This course is a self-paced, contract-based curriculum that will span the entire school year or the first term dependent upon the number of credits selected by the student. Students, working both independently and as a team, will participate in project management skills pertaining to various business and leadership topics including aspects of Career and Technical Student Organizations. Students will prepare speeches, mock interviews, and professional networking portfolios.

4422 Marketing

Marketing is the business concept of satisfying customer's wants and needs. This course explores using the 4 P's of Marketing; Price, Product, Place and Promotion in real world business situations. Students will use hands on projects rather than tests to discover the exciting field of Marketing. The classroom environment is stimulated by using case studies, projects, guest speakers and online virtual business projects to learn and grow. Students taking the course should have an interest in attending college for marketing and/or starting their own business in the future.

Grade 10-12 1.0 credit

Grade 11-12 1.0 credit

Grade 12 1.0 credit

Grade 11-12 1.0 credit

4421 Entrepreneurship

Prerequisite: Marketing

An entrepreneur is a person who attempts to earn a profit by taking the risk of owning and operating his or her own business. Thousands of people become entrepreneurs each year. They may start their own businesses from scratch, buy existing businesses, or buy franchised businesses. The REAL (Rural Entrepreneurship through Action Learning) Entrepreneurship course will teach students the skills necessary to become a successful entrepreneur through a hands-on approach. In this course, students learn about self-employment through reading, research, and classroom activities.

4420 Sports and Entertainment Marketing

Prerequisite: Marketing

Explore the intriguing world of sports and entertainment from the perspective of marketing. This course will take you on astep-bystep journey through the exciting world of sports entertainment marketing. You will learn about the key functions of marketing and how those functions are applied to the sports and entertainment industry. Guest Speakers, case studies, projects, field trips, on-line activities of owning your own professional sports team will broaden the classroom learning experience.

4450 Computer Applications/REQUIRED COURSE

Computer Applications is a course that teaches students how to create, edit, and format word processing, spreadsheet, and presentation files using Microsoft Office. There is a strong focus on careers and the students will take the ASVAB diagnostic test (when available) or other career assessments to better understand career options. Introduction to the Internet and its research capabilities will be presented. Students mustalso complete a resume, a letter of application, other job-related materials, and digital citizenship topics.

4700 Business Law 1

Business Law 1 is a one-semester course that involves principles of law as they apply to business and the consumer. This is an essential course for any student who is planning a career in business. It is highly recommended for business students and others who wish to elect an interesting and enjoyable course. Basic principles of law will be discussed with emphasis being placed on the following: the individual and his/her relationship with the law; our legal system; contract law; marriage, divorce and its legal consequences; and bailments. Current legal cases that relate to the course will also be discussed. Law is an instrument of social control which affects everyone. Business is the medium through which most of the necessities of life are provided to everyone. These two comprehensive and profoundly important fields of interest are ambitiously combined in the text and course on business law. Most colleges require students majoring in business to take at least two semesters of business law.

4701 Business Law 2

Business Law 2 is a one-semester course that will cover the following topics: job and agency contracts; buying on credit; insurance (including automobile insurance); buying and renting of real property; consumer law; commercial paper (checks and promissory notes); and detailed study of various forms of business ownership. Business Law 1 is not required to enroll in Business Law 2.

Grade 12

Grade 12 .50 credit

.50 credit

.50 credit

Grade 11-12 .50 credit

Grade 9

Grade 11-12 .50 credit

4484Computer information and Society (CIS)
Dual Enrollment option available

Grade 11-12 1.00 credit

Introduction to the basic concepts and applications of computer and Internet-related information technology and its impacts on individual users, businesses, groups, organizations, and society. Topics include access, evaluation, and use of digital information, ethical and security implications of information use and storage; human-computer interactions; social aspects of information systems; economic and legal issues; and professional presentation and communication of information. Information literacyskills that promote lifelong learning are developed through exposure to various existing and emerging technologies, including information resources, communication methods and technology.

NOTE: This course is a Lackawanna College Dual Enrollment Course. Registered students will receive Three (3) College Credits through Lackawanna College upon successfully completing the requirements of the course. There is a cost associated with Lackawanna College Course of \$100 per credit and the cost of the textbook (approximately \$100). Total approximate cost to the student / parents-guardians for the CIS Dual Enrollment Course is \$400. This cost is non-refundable. Registration and payment are due prior to the first day of school.

7

Career and Technical Education Programs

In today's challenging job environment, it is more critical than ever before that our young people complete their high school education with strong academic and technical skills that prepare them for college-level studies and successful careers. We believe this foundation will allow students to succeed personally and also make a valuable contribution to an innovative and competitive Pennsylvania economy. Building this foundation is what Career and Technical Education (CTE) is all about. CTE programs at Jersey Shore Area Senior High School (JSASH) are designed to meet a dual mission -- developing students with College Readiness skills AND a Career Path. CTE is no longer an either/or choice, but a "BOTH/AND" opportunity for student success

This class is good for anyone who wants to help others or explore careers in the human service field. If you are interested in teaching or the Child Care CTE program you should take this course. Students will study childhood development and age-related milestones. Students will participate in some community service projects to help others. The students will explore their own skills and interests and develop their own individual career plan. This course also focuses on soft skills and helps students develop the organizational and communications skills they need in this type of work.

6035 **Introduction to Engineering and Robotics**

Introduction to Human Services

This course introduces students to fundamental engineering concepts and focuses on programming robots. Students dig deep into the engineering design process, applying math, science, and engineering to create hands-on projects. There is a strong emphasis on coding as well as problem solving strategies as students create solutions to challenges. Students will explore, research, design, redesign, analyze, evaluate and share their results with the class. They will work both independently and in teams and are required to keep track of their progress in an engineering design notebook.

8114 **Health Occupations**

9026

The Health Occupations course will enable students to engage in a more thorough understanding of the various occupations available in the Health field. Students will be provided information on: job descriptions, job responsibilities, including the negative and positive aspects of the jobs, training and educational requirements, salary/benefits, working environments, advancement opportunities, job security and retirement incentives through instruction, research and personal experiences with guest speakers. The course is an excellent way for students to become better prepared for making career decisions in Health related fields.

Pathway Rotation

This course is the gateway class for the Career and Technical Education (CTE) Engineering and Industrial Trades-Technologies Pathway: Industrial Technologies is a four (4) part rotation course consisting of Automotive Technology, Construction Trades, Electronics, and Manufacturing programs. Students will learn basic skills in electrical, programming, engines, prints, schematics, measurements, basic tools, units, welding, and machinery. This course provides the fundamental foundation skills necessary for the various CTE programs.

.50 credit

Grade 9 1.0 credit

Grade 9-10 .50 credit

Grade 9

Grade 9 .05 credit

Pathway Options

0047 **Automotive Technology Exploration** Grade 9 .25 credit This course is the gateway class for the Career and Technical Education (CTE) or Automotive Technology Pathway: Students will learn and explore internal combustion engines, braking system, tire repair as well as basic hand tool usage. Students will focus on the fundamental skills necessary to explore Automotive Technology.

This course could be taken with other exploratory .25 credit courses from the following programs: Networking, Drafting and Design, Construction, Manufacturing, Building & Maintenance, and Communications.

Grade 9 0048 **Building Maintenance Exploration** .25 credit

Students will be introduced to various skills and tasks which are necessary to work in the field of Building Maintenance and property care. The students will experience the use of available hand tools, machinery and operations. This course will serve as a foundation course for students who are interested in the Building Maintenance pathway.

This course could be taken with other exploratory .25 credit courses from the following programs: Networking, Automotive, Construction, Manufacturing, Drafting and Design, and Communications.

0050 Grade 9 **Computer Systems & Networking Exploration**

This course is the gateway class for the Career and Technical Education (CTE) or Computer Systems Networking and Telecommunications Pathway: Students will learn and explore Personal Computer Hardware, Operation Systems & Applications, Networking Technologies for Home and Business Settings, and Basic Programming Fundamentals. Students will focus on the fundamental skills necessary to explore careers in Computer Support, Programming, and Networking.

This course could be taken with other exploratory .25 credit courses from the following programs: Drafting and Design, Automotive, Construction, Manufacturing, Building & Maintenance, and Communications.

0051 **Construction Exploration**

This course is the gateway class for the Career and Technical Education (CTE) Construction Technology: Students enrolled in this course will learn layout and measuring, safe hand and power tool use, and assembling projects in the Construction lab. Projects will include but not limited to tables, benches, toolboxes and more. Students may take home completed projects.

This course could be taken with other exploratory .25 credit courses from the following programs: Networking, Automotive, Drafting and Design, Manufacturing, Building & Maintenance, and Communications.

Manufacturing Engineering Exploration 0052 Grade 9 .25 credit

This course is the gateway class for the Career and Technical Education (CTE) or Manufacturing Engineering Pathway: Students will learn and explore CADD (Computer Aided Drawing & Design), 3D Printing, Welding, Sheet Metal Fabrication and CNC (Computer Numeric Control) applications. Students will focus on the fundamental skills necessary to explore Manufacturing Engineering.

This course could be taken with other exploratory .25 credit courses from the following programs: Networking, Automotive, Construction, Drafting and Design, Building & Maintenance, and Communications.

.25 Credits

Grade 9 .25 credit

0053 Drafting and Design Engineering Exploration

Grade 9 .25 credit

Computer Aided Drafting and Design is an industrial technology program used in many applications and industries, including automotive, apparel manufacturing, aerospace, architectural and building, and other process engineering careers. CADD (Computer Aided Drafting and Design) is used in the design and development of tools, machinery, electronics and various residential and commercial building schematics. CADD is also used to produce computer animation for special effects in movies, advertising, and technical manuals. This course introduces students to the basic skill and design for engineering careers using Computer Aided Drafting and Design.

This course could be taken with other exploratory .25 credit courses from the following programs: Networking, Automotive, Construction, Manufacturing, Building & Maintenance, and Communications.

.25 credit

2.0 credits

Grade 9

0047 **Automotive Technology Exploration**

(This course is part of the 9th grade pathway rotation)

This course is the gateway class for the Career and Technical Education (CTE) or Automotive Technology Pathway: Students will learn and explore internal combustion engines, braking system, tire repair as well as basic hand tool usage. Students will focus on the fundamental skills necessary to explore Automotive Technology.

This course could be taken with other exploratory .25 credit courses from the following programs: Networking, Manufacturing Engineering, Construction, Technology Education, Building & Maintenance and Communications.

9825 **Introduction to Automotive Technology**

(Preference given to 10th grade)

This course provides students with the opportunity for hands-on experience in automobile repair and maintenance. Students will acquire skills in vehicle electrical systems, precision measurement, and engine repair. This course is intended to teach skills that allow you to enter the vast area of automobile repair or prepare you to further your education in post-secondary schools. This will give students the opportunity to explore this field without making a 2 credit commitment.

9800 **Automotive Technology 1**

(Prerequisite: Introduction to Automotive Technology is strongly recommended)

(Preference given to 11th grade)

Students enrolled in this program study all aspects of automotive brake systems (to include anti-lock brakes), steering systems, suspension systems, wheel alignment, and electrical/electronic systems. The application of technological and scientific principles, functional design, operation, and diagnostic tests will be covered throughout the course. The program is industry certified and uses up-to-date repair and diagnostic test equipment. This course will have an emphasis on theory as well as practical hands- on skills. This course, will allow students to gain the proficient knowledge to step into the higher level manufacturing courses. Students will also prepare for the (OSHA) Occupational Safety & Health Administration certification.

9810 **Automotive Technology 2**

(Prerequisite: Automotive Technology 1)

This course will be a continuation of Automotive Technology 1. Students will study engine operation, design, diagnostics, and repair. A major focus will be on advanced engine diagnostics and repair to include electronic ignition systems, fuel systems, computerized engine control, and emissions systems. Students will also have the opportunity to earn a Pennsylvania Certified Safety Inspector License. The program is industry certified and uses up-to-date repair and diagnostic test equipment.

Grade 10-12 .50 credit

Grade 11-12

Grade 12 2.0 credits

9830 Vehicle Maintenance and Service (FLEX)

Grade 11-12 .50 credit

Students will learn the theory and application of vehicle maintenance, fleet maintenance operations and basic car care. This course focuses more on maintaining a vehicle as opposed to repairing them. This course includes necessary information and skills for Automotive 1 and 2, but is also a stand-alone course for those looking to gain knowledge about how to maintain and care for a vehicle. Topics covered are basic maintenance and servicing of all vehicle systems from chassis to powertrains to interior systems.

Grade 9

Grade 11-12

0048 Building Maintenance Exploration

(This course is part of the 9th grade pathway rotation)

Students will be introduced to various skills and tasks which are necessary to work in the field of Building Maintenance and property care. The students will experience the use of available hand tools, machinery and operations. This course will serve as a foundation course for students who are interested in the Building Maintenance pathway.

This course could be taken with other exploratory .25 credit courses from the following programs: Networking, Manufacturing Engineering, Construction, Technology Education, Building & Maintenance and Communications.

9782 Intro to Building Maintenance

Introduction to Building Maintenance is an introductory course for student interested in the Building Maintenance and Construction Trades pathway. This course will provide an overview of the Construction Trades pathway by introducing the student to residential carpentry, electrical and plumbing systems, as well as landscaping and various maintenance related tasks.

9780 Building Maintenance 1

(Preference given to 11th grade)

This program is designed to introduce students to the skills necessary for success in a career in building maintenance. Students will be instructed in, and exposed to, building maintenance and trades skills at the basic, intermediate and advanced levels, based on their needs and abilities. These skills will include: basic safety (which includes personal protective equipment, performance safety, and what to do if an accident occurs); communication and human relations skills; and hands-on experiences (which provide exposure and practice in each of the building maintenance areas). Students will work boots and may need to purchase a uniform.

9781 Building Maintenance 2

(Prerequisite: Building Maintenance 1)

This program is designed to fine tune students to the skills necessary for success in a career in building maintenance. Students will be instructed in, and exposed to, building maintenance and trades skills at the basic, intermediate and advanced levels, based on their needs and abilities. The program continues to build upon skills learned in level 1.

9784 Computer Aided Drafting and Design (FLEX) Grade 11-12 .50 credit

This program will allow students in the Engineering and Industrial Technology pathways to gain knowledge in the use of AutoCAD and related software. Students will receive instruction in the use of AutoCAD, AutoCAD architecture Revit, and Autodesk Inventor programs. Students will read, draw, and interpret shop drawings and building plans in 2D and 3D. Students will use drafting practices to reinforce mathematical concepts of area, perimeter, volume, and other geometric concepts.

.25 credit

2.0 credits

Grade 12 2.0 credits

Grade 10 .50 credit

9025 ABC's of Child Care

(Preference given to 10th grade)

This introductory course provides the basic knowledge and skills related to child growth and development. It will help you form positive relationships with children and develop effective parenting and caregiver skills. Participation in this course may also help one determine a career goal of working with children.

9000 Child Care Services 1

(Preference given to 11th grade)

Students enrolled in the Child Care Services program learn and practice the skills necessary to improve the quality of care and education provided for young children. In this course students begin the process of becoming a Child Development Associate (CDA). They develop skills in storytelling; implement art, music, movement, math and science activities for groups of children; create, plan and write weekly lesson plans; design bulletin boards, newsletters and other teaching tools; plan and prepare nutritional food for children. Students will also operate a laboratory school for 3-5 year olds, using positive guidance methods. Students will be prepared to pursue post-secondary education. Students will be required to purchase a shirt to be worn when

9010 Child Care Services 2

(Prerequisite: Child Care Services 1)

Students will continue to build upon the foundation established in Child Care Services 1, continuing to accumulate time and experience towards the process of becoming a **Child Development Associate** (**CDA**). Students will be given more responsibility in the development and preparations of the laboratory school.

Grade 10-12 .50 credit

3.0 credits

Grade 11-12

Grade 12 3.0 credits

6021 Introduction to Digital Median

This course gives students the opportunity to explore different methods of communication through digital media formats. Students will use computers to create and edit their own original works of art. This course provides a hands-on, project based environment covering topics such as digital photography, advertising, graphic design, animation, and video production. Students will study various aspects of the design process such as layout design, planning procedures, thumbnail sketches, typography, and color theory. Students will be introduced to basic camera composition concepts and learn how to edit photographs and videos. Each project is designed to develop problem solving skills, encourage project-oriented research, and self-reflection. This course is an introduction to the higher level course offerings in Communications and Digital Photography through the CTE department.

9140 Intro to Communications & Digital Media

Students will learn the art of taking photographs and video using the camera and computer as the primary tools for editing, processing and composing. After basic instruction in photography, artistic expression and experimentation with image form, portrait and small-product photography will be studied. In the video component of this class, students will develop skills related to commercial video production, art and experimental video, interactive multimedia production, web-based production and other newly emerging forms. Students who decide to enter post-secondary education will be better prepared for future studies in advertising, marketing, broadcast communications, computer information systems, mass communications, journalism, performing arts, office information systems and video production. This class fulfills the required 0.5 Technology Ed credits for graduation.

9145 Communications & Digital Media 1

(Preference given to 11th grade)

Communications Technology 1 is a CTE course focusing on graphic design (with an emphasis on digital communication), printing, photography, and video production. This course is an extension of the Communications Technology Exploratory and Digital Photo/Video. The course will expand further into color theory, advanced typography, project portfolio creation, and client-based project development.

Students will study various aspects of design and creation such as layout, resolution/printing, and color theory. Students will use the Adobe Creative Cloud suite to create various digital design projects following a specific content workflow. Concepts that will be explored include planning procedures, creating thumbnail sketches, creating digital "rough" layouts, final design creation, storyboarding, script writing, video production, motion graphics, off camera lighting, audio recording/mixing, and digital publication. Students will be expected to use math skills to calculate image size, resolution, document layout/positioning, frame rate, and more. Seniors taking this course will take an industry-based NOCTI examination at the conclusion of the year. Additionally, all seniors will have the opportunity to become Adobe Certified Associate certified.

Industry Certifications: NOCTI Communications Technology and Adobe Certified Associate - Visual Communication

Grade 9-10 .50 credit

Grade 10

Grade 11-12 2.0 Credits

.50 credit

9146 **Communications & Digital Media 2**

(Prerequisite: Communications & Digital Media 1)

Communications Technology II is an advanced level CTE course focusing on digital media, marketing, video production, and photography. This course is an extension of the Communications Technology I. Students will complete large scale, communitybased projects, maintain social media channels (monitoring analytics), and work with adults both in and out of school. This course is setup to mimic an environment much like they will encounter in a real-world scenario. There is a heavy emphasis on the development of soft skills in addition to the technical skills introduced in the Level I course.

Industry Certifications: NOCTI Communications Technology and Adobe Certified Associate - Visual Communication

9147 Graphis Design for the Web (FLEX)

Graphic Design for the web is an elective-based course in which students are introduced to the various conceptual and technical aspects of designing content for the web. This course examines the fundamental basics of HTML and CSS in accordance to current internet standards. Students will explore the website design process including layout/conceptualization, to publication, while utilizing various HTML tags, CSS structuring, etc. Additionally, students will learn the basics of developing the front-end design for apps/websites, etc. using prototyping software that allows fully functional mobile apps and websites to be built and tested for usability.

♦♦ 4438 BWM150	Web Page Development (FLEX)	Grade 11-12	.50 Credits 3 College Credits
Intro du starry sarry	ana a fitha Internat and anline Wah technologies. Skills laam	and include how to alon enerts	and maintain statio

Introductory coverage of the Internet and online Web technologies. Skills learned include how to plan, create, and maintain static web pages. Students who enroll in this course with the intent to receive college credit must pass the Penn College Placement exam and purchase the book for this course. With successful completion, students will receive 3 credits for the BWM 150 course through Pennsylvania College of Technology.

Grade 12 2.0 Credits

.50 Credits

Grade 11-12

Computer Systems & Networking

Electronics and Computer Engineering courses provides students with a foundation in circuits, analog and digital electronics, automation using PLCs and Robotics, control systems, electronic communications, embedded systems, telecommunications, networking, and optics. These courses address the need for women and men with practical skills who are ready to continue their study at the college level, enter the military, or enter the workplace.

0050Computer Systems & Networking ExplorationGrade 9.25 Credits

(This course is part of the 9th grade pathway rotation)

This course is the gateway class for the Career and Technical Education (CTE) or Computer Systems Networking and Telecommunications Pathway: Students will learn and explore Personal Computer Hardware, Operation Systems & Applications, Networking Technologies for Home and Business Settings, and Basic Programming Fundamentals. Students will focus on the fundamental skills necessary to explore careers in Computer Support, Programming, and Networking.

♦♦9301	Introduction to Networking (Spring only)	Grade 10-12	.50 credit
(EET124)		3 Col	

This Course is weighted 1.1

Introduction to the basic concepts and applications of computer and engineering technologies and the effects on professional and casual users, their employers and employees, and society. Applied skills include the use of current computer technology for data/information collection and organization; visualization, analysis, and interpretation of numeric computations; and the dissemination and presentation of solutions to engineering technology problems.

This course meets Pennsylvania College of Technologies Computing Literacy graduation requirement for all majors.

Students who enroll in this course with the intent to receive college credit must pass the Penn College Placement exam and purchase the book for this course. With successful completion, students will receive 3 credits for the EET124 course through Pennsylvania College of Technology.

♦♦9310	Computer Systems & Networking 1	Grade 11-12	2.0 credits
(EET145)			4 College Credits

(Preference given to 11th grade)

This Course is weighted 1.1

This course will introduce networking topologies, connector termination techniques, basic hardware components and various operating systems, as well as current and emerging technologies. Topics covered include computer construction, operating system installation and management, TCP/IP, security concepts, wireless networks, virtualization, DHCP, DNS, file sharing, proxy services, active directory, network printing, and web servers. At the end of this course students may take the Computer Technology Industry Association (CompTIA) A+ and/or the Network+ certification Exam.

Students who enroll in this course with the intent to receive college credit must pass the Penn College Placement exam and purchase the book for this course. With successful completion, students will receive 4 credits for the EET 145 course through Pennsylvania College of Technology.

2.0 credits

Grade 12

9311 Computer Systems & Networking 2

(Prerequisite: Networking 1)

This course will build upon the foundation developed in Level 1. Students will learn Domain Administration in a Microsoft Windows environment, Network Administration, System Administration concepts, and will be given the opportunity to specialize or concentrate in their area of interest.

6017 Principles of Computer Programming (FLEX) Grade 11-12 .50 credit

Principles of Computer Programming provides and introduction to programming basics that can be used with any computer language. Concepts covered include: User Input, Output, Data Types and Variables, decision statements, looping, functions or methods, and arrays. Properties of algorithms, languages, and notations for describing algorithms, applications of a procedure-oriented language to problem solving are also covered. These concepts will be covered in a modern, high level, object oriented, open source (free) language such as Python. This course can be used as a building block into CTE courses in Electronics and Information Technology. This course meets the graduation requirement of .5 credits in Technology Education.

.25 credit

.50 credit

Grade 9

Grade 10-12

0051 **Construction Exploration**

(This course is part of the 9th grade pathway rotation)

This course is the gateway class for the Career and Technical Education (CTE) Construction Technology: Students enrolled in this course will learn layout and measuring, safe hand and power tool use, and assembling projects in the Construction lab. Projects will include but not limited to tables, benches, toolboxes and more. Students may take home completed projects.

9425 **Introduction to Construction Technology**

(Preference given to 10th grade)

Students selecting this course will receive instruction in basic skills required in the construction industry including safety, measurement, use of hand tools and portable power tools, and building materials. Through construction theory, students will learn the technical knowledge and problem solving skills necessary to complete assigned projects. Projects include chairs, gun racks, and more that students may take home upon completion. This class fulfills the required 0.5 Technology Ed credits for graduation.

110106			.50 credit
♦ 9426	Construction Hand and Power Tools (FLEX)	Grade 11-12	1.0 college
(BCT103)			credit

This course is weighted 1.1

Survey of hand and power tools typically used to perform construction work. Emphasis on the development of skills needed to effectively perform layout, measurement, cutting, fastening, and finishing operations. Study also includes maintenance of tools and equipment, safe use of hand and power tools, and emerging tool technology. This class fulfills the required 0.5 Technology Ed credits for graduation. Students who enroll in this course with the intent to receive college credit must pass the Penn College Reading Placement exam and purchase. With successful completion, students will receive 1 credit for the BC103course through Pennsylvania College of Technology.

9400 **Construction Technology 1**

(Preference given to 11th Grade)

Students enrolled in this program are involved in many different kinds of construction activity. Students learn about carpentry, plumbing, masonry, and electrical. Students will participate in classroom theory and hands-on construction projects with industry standard equipment and machines. Units on CDLs and heavy equipment will be included.

9410 **Construction Technology 2**

(Prerequisite: Construction Technology 1)

Students enrolled in this program will receive instruction in advanced skills required in the construction industry which build upon competencies acquired in Construction Technology 1.

Grade 12 2.0 credits

Grade 11-12 2.0 credits

9420 Home Remodeling and Renovation

Grade 11-12 .50 credit

Students selecting this course will receive instruction in home building including the skills needed to build a *Tiny House* that may be built during this class. Framing as well as plumbing and electrical needs will be covered. Flipping will include skills needed to remodel an older home making it a contemporary, modern, updated home, known as *House Flipping*. Curriculum will include tasks required to remodel a house and related costs to estimate potential profit. Training with construction hand and power tools will include projects students will be permitted to take home upon completion.

Grade 12

Career and Technical Education Programs

9600 CTE Culinary Arts 1

(Preference given to 11th grade)

The curriculum in culinary arts prepares students for employment related to commercial food services. Specialized learningunits include theory and work experience in the major areas of cooking, including: baking, meat cookery, soup preparation, desserts, sanitation, food purchasing, and many more. Experience is also gained in front-of-house skills including waiting on tables and cashiering, care and use of kitchen equipment, and sanitation in food handling in a commercial and institutional setting. Emphasis can be placed on learning specialty cooking. Students will be required to purchase a full chef uniform and participate in a minimum of two caterings functions beyond the school day each semester.

9610 CTE Culinary Arts 2

(Prerequisite: CTE Culinary Arts 1)

The students in this course will work to broaden their experience in commercial food service. Each will take on greater responsibilities in the planning, purchasing, and billing of events. A commitment to learn new skills to achieve quality and excellence in the field of culinary arts is mandatory. Students will be required to purchase a full chef uniform and participate in a minimum of two caterings functions beyond the school day each semester.

9620 Introduction to Baking and Pastries

This elective is for anyone interested in pursuing a career in Baking and Pastry Arts or Culinary Arts. This course will introduce the fundamentals used in the bakeshop. In addition, a better understanding of food terminology and advanced cooking will be mastered. The student will learn various techniques including bread baking, cookie making, sweet dough production, and much

9630 Advanced Baking and Pastries

(Prerequisite: Introduction to Baking and Pastries)

This elective is for anyone interested in pursuing a career in Baking and Pastry Arts. This course will introduce the fundamentals used in the bakeshop. In addition, a better understanding of food terminology and advanced cooking will be mastered. The student will learn various techniques including bread baking, cookie making, sweet dough production, and much more.

6551 Introduction to Food Prep and Cooking

This elective course is meant to introduce students to cooking and working with food. Even if you have no experience coming in, you will leave feeling comfortable in the kitchen. This class will also help you to realize whether you have a passion for cooking and if you would like to possibly pursue it as a career. Our units will focus on specific cooking methods used in the kitchen today; boiling, simmering, poaching, steaming, roasting and many more. Each unit will include a number of recipes that you will prepare in groups and take with you to enjoy. Sanitation, equipment identification, and a large emphasis on knife skills are also included to begin a strong foundation in your culinary arts education

Grade 11-12 3.0 credits

3.0 credits

.50 credit

Grade 9-12 .50 credit

Grade 9-12 .50 credit

Grade 10-12

6552 Advanced Food Prep and Cooking

Grade 10-12 .50 credit

(Prerequisite: Introduction to Food Prep and Cooking)

This class is the next step in your culinary education after the Introduction to Food Prep elective. We pick up right where we left off. The majority of the semester will be spent completing new recipes that focus on dry heat cooking methods such as deep-frying, pan-frying, and sautéing. You will also review the basic fundamentals of food preparation that we covered previously. This class is a great way to increase your skills and knowledge in the kitchen and develop your abilities to be able to create amazing dishes at home.

.25 credit

Grade 9

Manufacturing Engineering

0052 Manufacturing Engineering Exploration

(This course is part of the 9th grade pathway rotation)

This course is the gateway class for the Career and Technical Education (CTE) or Manufacturing Engineering Pathway: Students will learn and explore CADD (Computer Aided Drawing & Design), 3D Printing, Welding, Sheet Metal Fabrication and CNC (Computer Numeric Control) applications. Students will focus on the fundamental skills necessary to explore Manufacturing Engineering.

This course could be taken with other exploratory .25 credit courses from the following programs: Networking, Automotive, Construction, Technology Education, Building & Maintenance and Communications.

9700 Introduction to Manufacturing Engineering

(Preference given to 10th grade)

This course provides students with the opportunity for hands-on experience in the computer-enhanced manufacturing process. Students will acquire skills in Measurement, Machining, Welding, Computer Aided Design (CAD), Computer Numeric Control (CNC) programming, automated applications and tool technology. This course is intended to teach the basic skills that allow you to enter the vast area of manufacturing engineering or prepare you to further your education in post-secondary schools. This class fulfills the required 0.5 Technology Ed credits for graduation.

9710 Manufacturing Engineering 1

(Preference given to 11th grade)

Manufacturing Technology is a hands-on course that will explore various areas of manufacturing and the supporting elements of manufacturing processes. Students will learn fundamental skills in areas such as: Print Reading, Machining, Welding, CNC(Computer Numerical Control), Material Layout, CAD(Computer Aided Drawing), CAM (Computer Aided Manufacturing), Measurement, Fluid Power, Mechanical Drives, Electricity and Automation. This course will have an emphasis on theory as well as practical hands- on skills. This course, will allow students to gain the proficient knowledge to step into the higher level manufacturing courses.

9720 Manufacturing Engineering 2

(Prerequisite: Manufacturing Engineering Technology 1)

Manufacturing/ Engineering Technology 2 is an advanced level course that will utilize advanced, tools, materials, and techniques to design and manufacture several products. This will allow the students to apply their skills and problem-solving abilities to overcome a number of design and fabrication problems that would be similar to the problems found in any industrial setting if they were manufacturing a product. Students will focus heavily in areas such as: Print Reading, Machining, Welding, CNC(Computer Numerical Control), PLC (Programmable Logic Controllers), Gears/Pulleys, Material Layout, CAD(Computer Aided Drawing), CAM (Computer Aided Manufacturing), Measurement, Fluid Power, Mechanical Drives, Electricity and Automation. Students will prepare for the Manufacturing (NOCTI) National Occupational Competency Testing Institute.

Grade 12 2.0 credits

Grade 10-12 .50 credit

Grade 11-12 2.0 credits

.50 credit

2.0 college

credits

9730 Advanced Automation & Welding (FLEX)

Students will learn the theory and application of advanced automation & Welding processes for the 21st century. This class will focus on fabrication using CADD, CAM, 3D Printing, Welding and Plasma cutting. Applications will require the proper setup and operation of the automated and welding equipment. Other areas of emphasis will include proper use of tooling, fixtures and inspection gages. This course will be project based, and will be utilize manual and advanced automated tools. Students will manipulate a variety of metallic materials as well as plastics material.

♦♦ 9705 The Plastics Industry (FLEX) (PPT115)

This course is weighted 1.1

Overview of the plastics industry, including materials, resin codes and mold processes. Topics include the many types of career opportunities in the industry, local industry, thermoforming, blow molding, and injection molding. Discussion also covers the nature of plastic product manufacturers, work environment, and current market research. This course fulfills the required 0.5 Technology Ed credits for graduation. Students who enroll in this course with the intent to receive college credit must pass the Penn College Placement exam. With successful completion, students will receive 2 credits for the PPT115 course through Pennsylvania College of Technology.

23

.50 credit

Grade 11-12

Grade 11-12

Career and Technical Education

Electives

0610 Career Readiness

Students will be expected to work independently to successfully complete the course. Career Readiness will introduce students to career development strategies within a *Learn & Apply* format that facilitates skill development and application. In this course students will identify their interests and research career paths that match hose interests. Students will develop a career portfolio, participate in mock interviews, demonstrate employability skills and produce collaborative presentations.

9620 Introduction to Baking and Pastries *Grade 9-12*.50 credit

This elective is for anyone interested in pursuing a career in Baking and Pastry Arts or Culinary Arts. This course will introduce the fundamentals used in the bakeshop. In addition, a better understanding of food terminology and advanced cooking will be mastered. The student will learn various techniques including bread baking, cookie making, sweet dough production, and much more.

9630 Advanced Baking and Pastries

(Prerequisite: Introduction to Baking and Pastries)

This elective is for anyone interested in pursuing a career in Baking and Pastry Arts. This course will introduce the fundamentals used in the bakeshop. In addition, a better understanding of food terminology and advanced cooking will be mastered. The student will learn various techniques including bread baking, cookie making, sweet dough production, and much more.

6551 Introduction to Food Prep and Cooking

This elective course is meant to introduce students to cooking and working with food. Even if you have no experience coming in, you will leave feeling comfortable in the kitchen. This class will also help you to realize whether you have a passion for cooking and if you would like to possibly pursue it as a career. Our units will focus on specific cooking methods used in the kitchen today; boiling, simmering, poaching, steaming, roasting and many more. Each unit will include a number of recipes that you will prepare in groups and take with you to enjoy. Sanitation, equipment identification, and a large emphasis on knife skills are also included to begin a strong foundation in your culinary arts education

6552 Advanced Food Prep and Cooking

(Prerequisite: Introduction to Food Prep and Cooking)

This class is the next step in your culinary education after the Introduction to Food Prep elective. We pick up right where we left off. The majority of the semester will be spent completing new recipes that focus on dry heat cooking methods such as deep-frying, pan-frying, and sautéing. You will also review the basic fundamentals of food preparation that we covered previously. This class is a great way to increase your skills and knowledge in the kitchen and develop your abilities to be able to create amazing dishes at home.

Grade 10-11 .50 credit

Grade 10-12 .50 credit

.50 credit

.50 credit

Grade 9-12

Grade 10-12

♦●9301 Introduction to Networking (Spring only)(EET124)

This Course is weighted 1.1

Introduction to the basic concepts and applications of computer and engineering technologies and the effects on professional and casual users, their employers and employees, and society. Applied skills include the use of current computer technology for data/information collection and organization; visualization, analysis, and interpretation of numeric computations; and the dissemination and presentation of solutions to engineering technology problems.

This course meets Pennsylvania College of Technologies Computing Literacy graduation requirement for all majors.

Students who enroll in this course with the intent to receive college credit must pass the Penn College Placement exam and purchase the book for this course. With successful completion, students will receive 3 credits for the EET124 course through Pennsylvania College of Technology.

9730 Advanced Automation & Welding (FLEX) Grade 11-12 .50 credit

**Preference will be given to students enrolled in the CTE program

Students will learn the theory and application of advanced automation & Welding processes for the 21st century. This class will focus on fabrication using CADD, CAM, 3D Printing, Welding and Plasma cutting. Applications will require the proper setup and operation of the automated and welding equipment. Other areas of emphasis will include proper use of tooling, fixtures and inspection gages. This course will be project based, and will be utilize manual and advanced automated tools. Students will manipulate a variety of metallic materials as well as plastics material.

9420 Home Remodeling and Renovation (FLEX) Grade 11-12 .50 credit

**Preference will be given to students enrolled in the CTE program

Students selecting this course will receive instruction in home building including the skills needed to build a *Tiny House* that may be built during this class. Framing as well as plumbing and electrical needs will be covered. Flipping will include skills needed to remodel an older home making it a contemporary, modern, updated home, known as *Houseflipping*. Curriculum will include tasks required to remodel a house and related costs to estimate potential profit. Training with construction hand and power tools will include projects students will be permitted to take home upon completion.

Grade 10-12 .50 credit 3 College Credits

.50 credit 1.0 college Grade 11-12 credit

This course is weighted 1.1

♦ 9426

(BCT103)

**Preference will be given to students enrolled in the CTE program

Construction Hand and Power Tools (FLEX)

Survey of hand and power tools typically used to perform construction work. Emphasis on the development of skills needed to effectively perform layout, measurement, cutting, fastening, and finishing operations. Study also includes maintenance of tools and equipment, safe use of hand and power tools, and emerging tool technology. This class fulfills the required 0.5 Technology Ed credits for graduation. Students who enroll in this course with the intent to receive college credit must pass the Penn College Reading Placement exam and purchase. With successful completion, students will receive 1 credit for the BC103course through Pennsylvania College of Technology.

9147 Graphic Design for the Web (FLEX)

**Preference will be given to students enrolled in the CTE program

Graphic Design for the web is an elective-based course in which students are introduced to the various conceptual and technical aspects of designing content for the web. This course examines the fundamental basics of HTML and CSS in accordance to current internet standards. Students will explore the website design process including layout/conceptualization, to publication, while utilizing various HTML tags, CSS structuring, etc. Additionally, students will learn the basics of developing the front-end design for apps/websites, etc. using prototyping software that allows fully functional mobile apps and websites to be built and tested for usability.

9784 Grade 11-12 **Computer Aided Drafting and Design (FLEX)** .50 credit

**Preference will be given to students enrolled in the CTE program

This program will allow students in the Engineering and Industrial Technology pathways to gain knowledge in the use of AutoCAD and related software. Students will receive instruction in the use of AutoCAD, AutoCAD architecture Revit, and Autodesk Inventor programs. Students will read, draw, and interpret shop drawings and building plans in 2D and 3D. Students will use drafting practices to reinforce mathematical concepts of area, perimeter, volume, and other geometric concepts.

6015 **Principles of Electronics (FLEX)**

**Preference will be given to students enrolled in the CTE program

In Principles of Electronics students are introduced to various concepts and topics in electronics technology such as electricity fundamentals, basic circuit design, electrical component installation/function, multi-meter use, principles of automation, and principles of data communication. The course is setup as partial theory and partial hands-on lab work. Students will apply math skills to verify circuit operation. It is expected that students have a basic understanding of algebra. This course can be used as a building block into CTE courses in Electronics, Information Technology, and Automotive. This course meets the graduation requirement of .5 credits in Technology Education.

Grade 11-12 .05 Credits

Grade 10-12

.50 credit

.50 credit

Grade 11-12

Principles of Computer Programming (FLEX) 6017

**Preference will be given to students enrolled in the CTE program

Principles of Computer Programming provides and introduction to programming basics that can be used with any computer language. Concepts covered include: User Input, Output, Data Types and Variables, decision statements, looping, functionsor methods, and arrays. Properties of algorithms, languages, and notations for describing algorithms, applications of a procedureoriented language to problem solving are also covered. These concepts will be covered in a modern, high level, object oriented, open source (free) language such as Python. This course can be used as a building block into CTE courses in Electronics and

♦♦ 4438	Web Page Development (FLEX)	Grade 11-12	.50 Credits
BWM150			3 College Credits

**Preference will be given to students enrolled in the CTE program

Introductory coverage of the Internet and online Web technologies. Skills learned include how to plan, create, and maintain static web pages. Students who enroll in this course with the intent to receive college credit must pass the Penn College Placement exam and purchase the book for this course. With successful completion, students will receive 3 credits for the BWM 150 course through Pennsylvania College of Technology.

			.50 credit
♦♦ 9705	The Plastics Industry (FLEX)	Grade 11-12	2.0 college
(PPT115)	The Trastics industry (TLLA)	Grade 11-12	2.0 conege
(FF1113)			credits

This course is weighted 1.1

Overview of the plastics industry, including materials, resin codes and mold processes. Topics include the many types of career opportunities in the industry, local industry, thermoforming, blow molding, and injection molding. Discussion also covers the nature of plastic product manufacturers, work environment, and current market research. This course fulfills the required 0.5 Technology Ed credits for graduation. Students who enroll in this course with the intent to receive college credit must pass the Penn College Placement exam. With successful completion, students will receive 2 credits for the PPT115 course through Pennsylvania College of Technology.

9705 Grade 11-12 Vehicle Maintenance and Service (FLEX) .50 credit

Students will learn the theory and application of vehicle maintenance, fleet maintenance operations and basic car care. This course focuses more on maintaining a vehicle as opposed to repairing them. This course includes necessary information and skills for Automotive 1 and 2, but is also a stand-alone course for those looking to gain knowledge about how to maintain and care for a vehicle. Topics covered are basic maintenance and servicing of all vehicle systems from chassis to powertrains to interior systems.

9930 **Co-operative Education Experience**

******This course is only available to students enrolled in the CTE program

The Co-operative Education experience allows students to gain school-to-work skills through work-based placement opportunities for CTE students who are enrolled in a Career and Technical Education Program. Students who meet the requirements of basic trade and technical training, good attendance, a good attitude and work habits, are recommended to the employer for on-the-job training. The Cooperative Education experience translates to a student grade and credit is granted towards graduation. Students can earn up to four (4) elective credits through a Cooperative Education experience.

Grade 12 up to 4.0 credits

50 and 1:4

English

Students are required to earn a minimum of four (4) English credits for graduation, pass the English 9 course, score proficient or advanced on the Keystone Literature Exam and, pass the Public Speaking/Research course in order to graduate. Students who do not pass the Keystone Exam will be required to take the Keystone English course in 10th Grade. Students must take at least .50 credits in English their senior year.

Career or College Pathway-English

(Workforce, technical, 2 year associates degree 4 year college degree pathway)

0120 **English 9**

The required course of study includes a variety of literature including Shakespeare's Romeo and Juliet, Homer's The Odyssey as well as a number of novels, short stories, and poems. The course is designed to prepare students to take the Keystone Exam in May. Research and documentation methods are crucial components of the course in ninth grade English. Students will master benchmark research skills. Word studies are conducted as well as taking words in context from literature. This course will prepare students to take the Keystone Literature Exam which will be taken in May of the freshman year.

0223 **English 10 Keystone** Grade10 1.0 credit

$(Required \rightarrow$ Gr 10 students who do not score proficient or advanced on Keystone in Gr 9)

This course is designed to reiterate basic literary and composition skills. Students will read selections of American literature from all genres encompassing early American history to modern times and complete writing assignments to correlate and complement each unit. Emphasis will be paced on Something for Joey, The Great Gatsby, and The Crucible. Students will also learn valuable studying and test-

taking strategies to assist in assessment proficiency. Students in this course will re-take the Keystone Literature Exam in May of the sophomore year.

0220 **English 10**

Students will read selections of American literature from all genres encompassing early American history to modern times. Writing assignments and projects correlated and complement to each unit accompany each text. Emphasis will be paced on Something for Joey, The Great Gatsby, and The Crucible. Students will study the historical evaluation of American dramatic literature from prehistoric to modern times, focusing on its European background from the various periods of history and the connection between a culture's beliefs and writings. Major pieces of dramatic literature from various time periods will be analyzed.

Grade 10 1.0 credit

1.0 credit

Grade 9

1.0 credit

0323 English 11

This course will focus on literature with themes about the outdoors. In addition to short stories, novels, poems, and magazine articles, students will read and analyze *Into the Wild* and study the concept of American Transcendentalism and how it applies to modern literature. Students will also focus on the writings and beliefs of Leo Tolstoy, Jack London, Ralph Waldo Emerson, and Henry David Thoreau. This course also includes a combination of research skills and public speaking. Composition instruction stresses the writing process with precise techniques for writing the multi-paragraph expository theme. Several two-four-page research papers will focus on research skills and MLA/APA format. Fundamentals of public speaking will focus on organizing the essential parts of a speech, with emphasis given to integration of a visual aid.

0545 English 11 College Preparation

This course will enhance vocabulary-building skills and comprehension of college-level fiction and non-fiction reading material. It will also focus on completing college applications and writing college entrance and scholarship essays. In addition, students will read and analyze Animal Farm. A research unit on colleges, majors, requirements, and expenses will result in an MLA-formatted paper and a presentation. This course also includes a combination of research skills and public speaking. Composition instruction stresses the writing process with precise techniques for writing the multi-paragraph expository theme. Several two-four-page research papers will focus on research skills and MLA/APA format. Fundamentals of public speaking will focus on organizing the essential parts of a speech, with emphasis given to integration of a visual aid. Upon completion of this course, students should be adequately prepared to take the verbal section of the SAT.

0550 Fantasy Fiction

This course will read an assortment of myths and stories from cultures around the world, including Greek, Roman, Norse, Celtic, Eastern Europe/Russia, Native American, as well as local myths and folklore, and identifying their influence on modern-day literature. Activities will include discussions, projects, essays, and research.

0520 Creative Writing

Students in the Creative Writing courses will experiment with several creative genres – fiction, poetry, playwriting, and short stories – as a means of developing different imaginative approaches to experiences. The emphasis will be on gaining familiarity with different writing techniques and styles, while delving into usage of literary enhancement like perspective, dialogue, imagery, and allusion.

0555 World Literature

This course will include a survey of literature and related vocabulary from various parts of the world from the beginning of recorded history to the present. Emphasis will be placed on the cultural connection between a society and its writings. Activities will include discussions, projects, essays, and research.

0423 Biography

This course will explore and read different examples of biographies and analyze the common components to a "quality" biography". Students will then write and complete their own biographies in the form of a senior memory book, containing chapters about their life experiences.

Grade 11 1.0 credit

Grade 11

Grade 12 .50 credit

Grade 12 .50 credit

Grade 12 .50 credit

Grade 12 .50 credit

Grade 12 .50 credit

Grade 9

Grade 10

1.0 credit

1.0 credit

Technical Communication

This course will focus on English skills especially relevant to vocational careers. Focus will be on using research to prepare a variety of informative and explanatory texts for internal company and client communication in a concise manner, including formal tone, domain-specific language, efficient organization, and multimedia graphics. Reading, interpreting, and analyzing these types of texts will also be addressed. Resume writing, professionalism, and other interpersonal communication skills will be included, as well.

♦ 0424(ENL111)English Composition 1	Grade 12	.50 credit 3.0 college credits
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This course is weighted 1.1

This dual-enrollment college course focuses on fundamental writing and research skills with an emphasis on expository writing. An emphasis is placed on analysis, discussion, and practice of writing that explores, explains, and argues. Course work includes a significant research component. Any student selecting this course must have administrative approval. Students who enroll in this course with the intent to receive college credit must pass the Penn College Placement exam and purchase the book for this course. With successful completion, students will receive 3 credits for the ENL111 course through Pennsylvania College of Technology

Honors Pathway-English

(4 year college degree pathway)

0130 English Honors 1

The course of study includes a variety of literature similar to that of English 9. A study of the history of the background of the author a nd period is included to provide insight into the piece of literature. Grammar is taught in correlation with writing and vocabulary. Sentence structure and more advanced grammar concepts are fine-tuned from basic knowledge. Particular writing methods are taught, including formal research, expository, comparison and contrast, and persuasive. Developmental vocabulary is continued through vocabulary texts, context of literature, and word lists that accompany pieces of literature. Independent reading and IXL are used to enhance standardized test scores. This course will prepare students to take the Keystone Literature Exam in May of the freshman year. This course requires summer reading and assignments.

0230 English Honors 2

(Recommended prerequisite: 90% or higher in Honors 1 and proficient or advanced score on the Keystone Literature Exam)

Students will complete a rigorous academic course that focuses on classic literature, poetry, writing, non-fiction, drama, and cinema. In addition, the course stresses reading outside of class and project-based learning. The writing in the course will focus on analyzing multiple texts from multiple genres in coherent and well-organized essays which use MLA format. The course will explore and focus on primarily American Literature and the historical context that impacts writing. This course is recommended for 10th graders who plan to take AP English their senior year. **This course requires summer reading and assignments.**

0530

1.0 credit

0330 English Honors 3

(Recommended prerequisite: 90% or higher in Honors 2)

The advanced level of junior English helps the talented student to grow in analytical and interpretive thinking and challenges his creativity. The core content of the course is a study of British literature, conducted both thematically and chronologically. British novels and plays incorporated into the course are pieces that also appear on AP exam reading lists. At least one Shakespeare play will be read and analyzed. The methodology and vocabulary of literary criticism are applied in writing assignments and individual projects. Instruction in the conduct and writing of research is provided. Grammar and vocabulary studies focus on skills required for colleges, as well as for College Board and AP exams. Analytical skills are developed in readiness for the literature portion of the AP exam. This course requires summer reading and assignments.

0450 Advanced Placement English 12

Grade 12 1.0 credit

Grade 11

This course is weighted 1.1

(Recommended prerequisite: 86% or higher in Honors 3)

The Advanced Placement course prepares the student for college-level English courses and for the nation-wide Advanced Placement English Literature Exam in May of the current school year. Students who are successful with the AP exam may be granted college credit by the academic institution they choose to enter after high school. The reading, writing, and thinking requirements are formidable, requiring extensive analytical and critical thinking elements that are built upon

from the previous honors courses. Instruction focuses on note-taking; class discussion encourages differences of opinion; essay exams emphasize supporting one's interpretation with specific details from the readings; and

writing assignments stress coherency and the mechanics of writing: i.e., grammar, punctuation, and spelling. Close reading is given to an extensive series of classics, great novels, plays, poems, essays, and stories. Each marking period will be directed towards the reading of a novel, drama, Shakespeare play, and independent reading assignment. This course requires summer reading and assignments.

A = 1474		English Composition 1	Grade 12	.50 credit 3.0 college credits
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This course is weighted 1.1

This dual-enrollment college course focuses on fundamental writing and research skills with an emphasis on expository writing. An emphasis is placed on analysis, discussion, and practice of writing that explores, explains, and argues. Course work includes a significant research component. Any student selecting this course must have administrative approval. Students who enroll in this course with the intent to receive college credit must pass the Penn College Placement exam and purchase the book for this course. With successful completion, students will receive 3 credits for the ENL111 course through Pennsylvania College of Technology.

1.0 credit

The Following Elective Courses Will NOT Count for English Credit

0501 Journalism

The chief activity in the course is the production of the school newspaper, The Paw Print. Students will learn skills in reporting, interviewing, writing the article, editing, making layouts, and using desktop publishing software on the computer. Methods of the modern daily newsroomare simulated. Enthusiastic journalists are invited to provide the editorial leadership for the production staff. Students may repeat the course the following year. This is an elective credit not an English credit.

9180 Yearbook Publications

(Prerequisite: Students must have a good scholastic record, faculty recommendations, demonstrated ability to work well with others and good time management skills. Students interested in being on staff must meet a strict application process and have the approval of the yearbook advisors.)

The publication of the school yearbook, the Orange and Black, is carried out each year by students dedicated in producing the best yearbook ever. If you like dealing with people, accepting responsibility and you don't mind hard work, and then this course is designed for you. In this course you will: participate in the designing, planning and layout of the yearbook, be responsible for specific yearbook pages, organize photo assignments, select topics and generate written copy for your assigned pages, participate in business activities such as marketing, selling, handling money and maintaining accurate records. This is an elective credit not an English credit.

Grade 9-12 1.0 credit

Grade 10-12

Upon completion of 8th grade, all students will need to choose a math pathway for the high school. A score of Proficient or Advanced on the Keystone Algebra 1 exam in 8th grade is a prerequisite for the Honors Pathway.

Career or Academic Pathway-Mathematics

(Workforce, technical or 2 year associates degree pathway)

With teacher recommendation

2120 **Career Algebra 1**

The study of Algebra lays the foundation for mathematics, sciences, and technical courses a student will be taking in the future. Students learn to express relationships verbally, pictorially, graphically, and symbolically. Equations are solved graphically prior to solving them symbolically. Emphasis is on connections to the real world and to various mathematical strands. Geometric models are used to connect the visual and the symbolic. Use of scientific and graphing calculators is encouraged throughout the course. The emphasis in this course is on the concrete applications and concept. (Not a Keystone Exam triggercourse)

2148 **Career Algebra 2**

This course is a continuation of topics covered in Career Algebra 1. Various topics are introduced such as functions, polynomials, series, sequences, and conic sections. Emphasis is placed on fundamental algebra skills such as factoring and solving linear systems. Use of a graphing calculator is essential throughout the course. (All students who have not scored proficient or advanced on the Keystone Algebra I Exam must take the exam at the middle and/or end of the course)

2154 **Career Algebra 3**

This course is a continuation of topics covered in Career Algebra 2. Various topics are introduced such as functions, polynomials, series, sequences, and conic sections. Emphasis is placed on fundamental algebra skills; radical, rational, exponential, and logarithmic functions; and probability and statistics. Use of a graphing calculator is essential throughout the course.

2150 **Unified Algebra and Trig**

(Prerequisite: Career Algebra 3 or Geometry)

This course is a continuation of topics covered in Algebra 2. Functions and polynomials are continued with the introduction of trigonometric functions. Transformations of parent functions are extended from Algebra 2. Circular functions are introduced through the rectangular coordinate system. Use of a graphing calculator is essential throughout the course.

2178 **Business Math**

This course involves such concepts as interest, discounts, purchasing, selling, tax computations, commissions, insurance investments, and financial institutions. By learning this type of material, the student will become more efficient, effective, and competent in the type of math used in the real world by both business people and consumers.

Grade 10 1.0 credit

Grade 12

Grade 12 1.0 credit

Grade 11 1.0 credit

1.0 credit

Grade 9 1.0 credit

(2 year associates or 4 year college degree pathway)

2122 Academic Algebra 1

The study of Algebra lays the foundation for mathematics, sciences, and technical courses a student will be taking in the future. Students learn to express relationships verbally, pictorially, graphically, and symbolically. Equations are solved graphically prior to solving them symbolically. Emphasis is on connections to the real world and to various mathematical strands. Geometric models are used to connect the visual and the symbolic. Use of scientific and graphing calculators is encouraged throughout the course. This course covers the same materials as #2120 but with more emphasis on the abstract applications and concepts and prepares the student to take the Keystone Exam at the end of the course. All students must take the Keystone Exam for Algebra 1.

2126 Keystone Algebra 1 Remediation

This course will target and reinforce basic information specifically related to the student performance on the Keystone Algebra 1 Exam. Students will complete assignments related to and correlated to each unit of study identified by the Keystone Anchors addressed in the Keystone Algebra 1 Exam. Students will learn studying and test-taking strategies designed to assist them in attaining proficiency on the Keystone Algebra 1 Exam.

2142 Academic Algebra 2

Prerequisite: Algebra 1 with a recommended minimum grade of 80%

The study of Academic Algebra 2 continues to build on sequential approaches as in Academic Algebra 1. The sequence from variable to relationships to functions is extended to include using functions as models for applied settings. Algebraic and geometric concepts are connected to topics in probability, statistics, trigonometry, and discrete mathematics. Functions are developed through tabular and graphical approaches aided by technology. A special emphasis is given to the concept of change as embodied in linear, polynomial, exponential functions. Included are important topics for today's technical world---paths and circuits, and optimization. Use of a graphing calculator is essential throughout the course.

2132 Academic Geometry

Grade 10 Prerequisite: Algebra 1 with a recommended minimum grade of 80% & Proficient on Keystone Grade 11 Prerequisite: Successful completion of Algebra 2 with a recommended minimum grade of 80%

In the study of geometry, students use inductive reasoning to identify patterns, and make conjectures---apply deductive reasoning to confirm conjectures through proof. The course begins with a strong development of visualizations and drawing skills. Algebraic and geometric models are used throughout to model a variety of real world situations. Proof is developed carefully throughout the text with an emphasis on understanding. Various proof formats are compared and used when appropriate---paragraph, flow-chart, and two column. The use of synthetic, coordinate, transformation, and vector approaches are promoted to help students understand the big ideas. Coordinate and transformation techniques are introduced early and used when appropriate. The use of manipulatives and constructions are integrated throughout to promote active involvement. This course emphasis is on the abstract applications and concepts.

2152 Academic Trig/Pre-Calculus

(Prerequisite: Geometry and Algebra 2 with a minimum grade of 80%)

The study of Pre-Calculus begins with a thorough review of the advanced topics of Algebra. The circular functions are introduced through the rectangular coordinate system which integrates the algebraic functions with the transcendental functions. Use of a graphing calculator is essential throughout the course.

Grade 9 1.0 credit

.50 credit

1.0 credit

1.0 credit

Grade 10 or 11 1.0 credit

Grade 10 and 11

Grade 10 or 11

Grade 12

2146 College Readiness Algebra

This course is designed for seniors who will attend college after graduation and will need to be proficient on placement tests. This is not for students pursuing a math or science field. Topics include real numbers, variable expressions, linear equations in one and two variables, inequalities, exponents and scientific notation, polynomial operations, and application problems, systems of linear equations, polynomial division and special products, factoring, rational expressions, radical expressions, quadratic equations, functions and application problems. Emphasis on math study skills. Technology is used to enhance thinking and understanding, to solve problems, and to judge/verify results. Verbal, numerical, graphical and symbolic approaches assist in the discovery and communication of mathematical concepts.

2178 Business Math

This course involves such concepts as interest, discounts, purchasing, selling, tax computations, commissions, insurance, investments, and financial institutions. By learning this type of material, the student will become more efficient, effective, and competent in the type of math used in the real world by both business people and consumers. This course is accepted as a math credit.

Grade 12 1.0 credit

Grade 11 or 12 1.0 credit

1.0 credit

(4 year college degree pathway)

2133 Geometry Honors

Grade 9: Algebra 8 with a recommended minimum 90% average and Proficient or higher on the Keystone Algebra 1 exam

This is the accelerated Geometry for the 9th grade. In the study of geometry, students use inductive reasoning to identify patterns, and make conjectures---apply deductive reasoning to confirm conjectures through proof. The course begins with a strong development of visualizations and drawing skills. Algebraic and geometric models are used throughout to model a variety of real world situations. Proof is developed carefully throughout the text with an emphasis on understanding. Various proof formats are compared and used when appropriate---paragraph, flow-chart, and two column. The use of synthetic, coordinate, transformation, and vector approaches are promoted to help students understand the big ideas. Coordinate and transformation techniques are introduced early and used when appropriate. The use of manipulatives and constructions are integrated throughout to promote active involvement. This course emphasis is on the abstract applications and concepts, with a stronger emphasis on proofs and theory.

2143 Algebra 2 Honors

Prerequisite: Geometry Honors with a recommended minimum 86% average

This course is the accelerated Algebra II. The sequence from variable to relationships to functions is extended to include using functions as models for applied settings. Algebraic and geometric concepts are connected to topics in probability, statistics, trigonometry, and discrete mathematics. Functions are developed through tabular and graphical approaches aided by technology. A special emphasis is given to the concept of change as embodied in linear, polynomial, exponential functions. Included are important topics for today's technical world---paths and circuits, and optimization. Use of a graphing calculator is essential throughout the course.

2153 Trig/Pre-Calculus Honors

Prerequisite: Algebra 2 Honors with a recommended minimum grade of 86%

This course is the accelerated Pre-Calculus for the 11th grade. The study of Pre-Calculus begins with a thorough review of the advanced topics of Algebra. The circular functions are introduced through the rectangular coordinate system which integrates the algebraic functions with the transcendental functions. Use of a graphing calculator is essential throughout the course.

2146 College Readiness Algebra

This course is designed for seniors who will attend college after graduation and will need to be proficient on placement tests. This is not for students pursuing a math or science field. Topics include real numbers, variable expressions, linear equations in one and two variables, inequalities, exponents and scientific notation, polynomial operations, and application problems, systems of linear equations, polynomial division and special products, factoring, rational expressions, radical expressions, quadratic equations, functions and application problems. Emphasis on math study skills. Technology is used to enhance thinking and understanding, to solve problems, and to judge/verify results. Verbal, numerical, graphical and symbolic approaches assist in the discovery and communication of mathematical concepts.

Grade 10 1.0 credit

Grade 9

Grade 12 1.0 credit

1.0 credit

Grade 11

1.0 credit

Grade 12 1.0 credit

Grade 12

Prerequisite: Trig/Pre-Calculus or Trig/Pre-Calculus Honors with a recommended minimum grade of 80%

Calculus is offered to the student who excels in mathematics. Topics include analytic geometry, limits and continuity, derivatives, and integration. The approach to this course integrates the use of numerical, graphical, and algebraic techniques.

2163 Calculus-Advanced Placement

Calculus

Prerequisite: Trig/Pre-Calculus Honors with a recommended minimum grade of 86%. This course is weighted 1.1

This course is offered to the senior student who excels in Mathematics. It prepares the student to take the nationwide Advanced Placement Exam in May of the current school year. Students who are successful with that exam may be granted college creditby the academic institute they choose to enter after high school. This course covers topics above and beyond the regular Calculus course with a strong emphasis on past Advanced Placement exams. It is a demanding course and will require the student to do Chapter 1 over the summer so that it is possible to cover all necessary topics by the beginning of May, prior to the exam.

Mathematic Electives

(will count as a math credit)

2170 Statistics

2162

(Prerequisite: Academic Algebra 1 and Academic Geometry)

This year long course is designed to show students how statistics are used to picture and describe the world and make informed decisions. The course is designed not to produce statisticians but to produce informed consumers of statistical reports. Students will be required to provide written explanation, find patterns, and make decisions. This course is recommended for any college bound student.

2172 AP Statistics

Prerequisite: Academic Algebra 2 This course is weighted 1.1

The purpose of the AP course in statistics is to introduce students to the major concepts and tools for collecting, analyzing and drawing conclusions from data.

Students are exposed to four broad conceptual themes. First, Exploring Data: Describing patterns and departures from patterns. Second, Sampling and Experimentation: Planning and conducting a study. Third, Anticipating Patterns: Exploring random phenomena using probability and simulation. Fourth, Statistical Inference: Estimating population parameters and testing hypotheses. Students who successfully complete the course and exam may receive credit, advanced placement or both for a one-

2174 SAT Math

SAT Math is offered to provide any student with skills for improving or preparing for the SAT exam. This one semester course allows students to review such topics as arithmetic, algebra and geometry in a mock testing environment. *Recommended for College Bound Juniors*.

Grade 11-12 1.0 credit

1.0 credit

Grade 12

Grade 11 Honors -

Grade 12 Academic

.50 credit

♦♦ 2147 MTH 124	Technical Algebra and Trigonometry I	Grade 12	0.5 credit 3.00 college credits
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(Highly recommended prerequisite: Course 2152--Academic Trig / Pre-Calculus)

This course is weighted 1.1

Study of intermediate algebra and trigonometry, designed to prepare students for course work in their technical majors. Topics include algebraic expressions, linear equations, systems of equations, right triangle trigonometry, functions, graphs, geometry, ratio and proportion, and variation. Emphasis on problem solving and technical application as well as the use of technology. Not

designed to prepare students for calculus. Students who enroll in this course with the intent to receive college credit must pass the Penn College Placement exam. With successful completion, students will receive 3 credits for the MTH 124 course through Pennsylvania College of Technology.

♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦			0.5 credit			
MTH 125	Trigonometry II	Grade 12	3.00 college			
(Recommended prerequisite: Course 2152Academic Trig / Pre-Calculus; Required Prerequisite: MTH124)						

This course is weighted 1.1

Study of intermediate algebra and trigonometry, designed to prepare students for course work in their technical majors. Topics include factoring, algebraic fractions and equations, quadratic equations, trigonometric functions and graphs, radicals, complex numbers, exponential and logarithmic functions and graphs, nonlinear systems, and inequalities. Emphasis on problem solving and technical application as well as the use of technology. Not designed to prepare students for calculus. **Students who enroll in this course with the intent to receive college credit must pass the Penn College Placement exam. With successful completion, students will receive 3 credits for the MTH 125 course through Pennsylvania College of Technology.**

2175 Technical Math Applications

This semester course is designed to develop mathematic skills related to career and technical education fields. The course is designed to teach the PA Math Core Standards in an applied, technical process in relation to various workplace needs. The curriculum will follow the PA Department of Education Math T-Charts. This course is recommended for any student enrolled in the CTE program of study.

Grade 10-12 0.5 credit

Modern Language

Modern Language can be the key to a successful future in both school and business. More than 70% of U.S. firms report that knowledge of a second language is an important consideration for successful employment. They seek employees with functional language skills as well as sensitivity to social and cultural differences. Speakers of a foreign language are greatly valued by international business firms as well as social services, law enforcement, manufacturers, health service providers, and local employers. Most universities recommend foreign language study as both an admission and graduation requirement. Students who study a foreign language demonstrate a better understanding of other cultures in addition to their own. Combining foreign language skills with almost any other career pathway makes the student more desirable in the field of future employment.

5140 Spanish 1

This course is an introduction to the language and culture of societies with different speech and lifestyles. The initial stages of language learning include mastery of a new sound system through oral repetition and practice of pronunciation, vocabulary, phrases, and, eventually, conversations. Reading and writing in the language will be studied. The student will be introduced to the new culture throughout the year through use of books and other visuals, foods, native speakers, magazines, etc. as available. The culture-that is, the behavior, beliefs, and values--of the people studied is an integral part of this course. Evaluation is based on oral class participation, completion of homework assignments, projects, oral and written quizzes, and unit tests. Students will be expected to complete assignments in a self-disciplined, self-motivated manner.

5240 Spanish 2

(Prerequisite: Successful completion of Spanish 1 with a minimum 86% average)

Level 2 stresses the continued use of the spoken language in the classroom. Students will continue grammar studies related to development of aural, oral, reading, and writing skills. Culture will be presented as an integral part of the course. Emphasis will be placed on the benefits of language study, both in the social and the business world. Evaluation will be based on oral participation, completion of homework assignments, projects, quizzes, and chapter test scores. Self-motivation and self-discipline are important for a successful language study.

5340 Spanish 3

(Prerequisite: Successful completion of Spanish 2 with a minimum 86% average)

At the third level, past grammar concepts will be reviewed, and by the end of the year, most basic grammar concepts will have been introduced. The student will be required to speak in the foreign language as much as possible, and original written work willbe stressed. Study will also center on culture and current events; emphasis will be placed on foreign language as an asset to any chosen career. Evaluation will be based on class participation, completion of homework assignments, quizzes, tests, and composition work. Attitude and effort are also considered in student evaluation.

5341 Spanish 3 Honors (Pre-AP Spanish)

(Prerequisite: Successful completion of Spanish 2 with a minimum 90% average)

This course is designed for students who plan to elect Spanish AP, with the intent of taking the AP exam. The pace of the class as well as the expectation of student performance will distinguish this course from Spanish 3. Students will be expected to speak Spanish in class, complete all homework assignments which will average 2-3 hours per week. There will be written activities and oral presentations assigned as well as additional readings and essays.

Grade 9-12 1.0 credit

1.0 credit

1.0 credit

Grade 11-12 1.0 credit

Grade 11-12

Grade 10-12

1.0 credit

5440 **Spanish** 4

(Prerequisite: Successful completion of Spanish 3 or Spanish 3 Honors with a minimum 86% average)

Teacher recommendation advised

Level 4 of language study is a refinement of concepts mastered at the preceding levels through continued practice of the basic skills. Cultural aspects and literature of the language will be explored with stress on reading and conversation skills. There will be continued emphasis on the benefit of foreign language to any chosen career. Evaluation will be based on oral participation, completion of homework assignments, individual and group projects, compositions, quizzes, and chapter tests. Consideration is given to student attitude and effort toward learning.

5540 **Spanish--Advanced Placement**

(Prerequisite: An average of 90% or higher in Spanish 3 Honors)

Teacher recommendation advised

This course is weighted 1.1

AP Spanish will offer students with a 90% average or better in Spanish III Honors the opportunity to improve their skill level in the areas of listening, writing, reading, and speaking. This intensive preparation will enable independently motivated students to prepare for the AP exam thereby getting college credit and/or exemption from beginning levels of Spanish in college. Students should expect at least one hour of work per school night. The course will be conducted in Spanish, and students will be expected to have daily assignments prepared before coming to class, so that class time itself is best utilized for practice and discussion.

Students will be expected to take the AP Spanish Language and Culture exam.

5120 German 1

A beginners course in German. No prior knowledge of German is required. Students will learn how to communicate effectively in German at a beginners level. Students will also gain an in-depth understanding of German culture. The Komm Mit! Level 1 textbook is used for German 1, which includes 12 chapters. The abilities of students who complete German 1 will measure at the Novice High level according to the ACTFL Proficiency Guidelines.

5220 German 2

(Prerequisite: Successful completion of German 1 with a minimum 86% average)

A beginner/intermediate course in German. It is assumed that students have taken a German 1 course and have learned how to communicate effectively in German at a beginners level. Students continue to learn how to communicate effectively in German at a beginner-intermediate level. Students will continue to gain an in-depth understanding of German culture. The Komm Mit! Level 2 textbook is used for German 2, which includes 12 chapters. The abilities of students who complete German 2 will measure at the Intermediate High level according to the ACTFL Proficiency Guidelines.

5320 German 3

(Prerequisite: Successful completion of German 2 with a minimum 86% average)

An intermediate/advanced course in German. It is assumed that students have taken a German 2 course and have learned how to communicate effectively in German at an beginner-intermediate level. Students continue to learn how to communicate effectively in German at an intermediate-advanced level. Students will continue to gain an in-depth understanding of German culture. The Komm Mit! Level 3 textbook is used for German 3, which includes 12 chapters. The abilities of students who complete German 3 will measure at the Advanced High level according to the ACTFL Proficiency Guidelines.

Grade 9-12 1.0 credit

1.0 credit

1.0 credit

Grade 10-12

Grade 11-12

Grade 12

Grade 12 1.0 credit

5420 German 4

Grade 12 1.0 credit

(Prerequisite: Successful completion of German 3 with a minimum 86% average)

An advanced course in German. It is assumed that students have taken a German 3 course and have learned how to communicate effectively in German at an intermediate-advanced level. Students continue to learn how to communicate effectively in German at an advanced level. Students will continue to gain an in-depth understanding of German culture. The *Dreimal Deutsch* textbook is used for German 4. The abilities of students who complete German 4 will measure at the *Advanced High* level according to the ACTFL Proficiency Guidelines.

Grade 11-12 .50 credit

Grade 9-12 .50 credit

No credit

No credit

.50 credit

Grade 9-12

Grade 9-12

Grade 11-12

Grade 9-12 .50 credit

The Concert Band is a high school performing ensemble which rehearses every other day. Participants include students who have been involved in the music program since elementary and middle school. The Band performs for evening concerts and other special events throughout the year. Repertoire includes music from various periods of music history as well as contemporary wind ensemble literature and marches. Band members, in good standing, will have the opportunity to audition for LCBDA/PMEA county/district/region/state festivals. Opportunity for solo and small ensemble concerts may also present themselves throughout the year. Previous experience playing an instrument in the district's music program is highly encouraged, although not necessarily required. Students without previous playing experience must meet with the director for permission to schedule this course.

Extra-Curricular – Marching Band

The Bulldog Marching Band is an extra-curricular activity that meets entirely outside of the school day. Students do not need to participate in Concert Band in order to be a member. The marching band provides entertainment to the community through parades and football games. This ensemble also participates in local marching band competitions as well as the Lycoming CountyBand Director's Marching Exhibition. The Bulldog Marching Band begins each season over the summer and continues through the end of Marking Period 1. Repertoire includes serious works for marching band as well as contemporary and popular music. Prior experience with color guard is NOT required as students will be taught by a color guard instructor.

5601 **Concert Choir**

The Concert Choir is a high school performing ensemble which rehearses every other day. The Concert Choir performs at school concerts and special events throughout the year. Repertoire includes music from various periods of history, as well as world and American music, folk and contemporary. The Concert Choir members, in good standing, may audition for PMEA district/region/state festivals and other select ensembles. Other performance opportunities may become available to perform in solo and ensemble concerts throughout the year.

Additional Ensembles/Activities - Co-Curricular

Students involved in the music program will also have the opportunity to participate in smaller, seasonal activities at the Jersey Shore Area Senior High School. Possible groups include: jazz band, wind ensemble, percussion ensemble, quartets, quintets, pep band, and various select vocal ensembles. Students are chosen by auditions for certain groups

5607 **Song Writing**

This course explores how to write, record, and publish new songs. This class begins with a brief introduction to basic music theory and song structure before diving into composition. Throughout the course, students will have the opportunity to compose short songs, write their own lyrics, and study the characteristics of popular genres. There will be frequent projects and opportunities to write new songs alone and with partners. This course concludes with units on recording and editing music, as well as units on copyright laws and resources for publishing your music!

5606 Stage Technology

This course dives into the processes involved with theatrical production. Topics include elements of physical theatre, safety practices, directing, scenic design, lights, sound, and career application. During this class, students will be prepared to produce a play or musical with the theatre department (Middle and/or High School).

*Students who take this class are required to be involved with an extra-curricular theatre production including rehearsals after school hours and on weekends as needed.

Music

Concert Band

5600

Grade 10-12 .50 credit

(Prerequisite: Previous knowledge of how to read music is required)

Music Theory 1

The purpose of this course is to explore the basic elements of Music Theory and how music is composed. Students will learnhow to write their own music by learning the rules of music composition and applying those rules using Sibelius music writing software. Students will be required to compose pieces based on compositional techniques learned in class. This semester course is open to all students who have an interest in the way music is composed or would like to learn the rules of music composition and how they are utilized today using the latest music writing software.

5701 **Music Theory 2**

5700

(Prerequisite: Completion of Music Theory I with a passing grade)

The purpose of this course is to continue the study of Music Theory at a higher level. Students will apply the basic elements from Music Theory I to write their own music, but add more complex concepts of music composition. Students will be required to use Sibelius music writing software to compose pieces based on compositional techniques learned in class. In addition to the written theory portion of the course, students will also receive aural theory training which will aid in their ability to sight read and sight sing more accurately. This semester course is open to all students who wish to continue their Music Theory studies, explore the way music is composed, further understand the rules of music composition, and experience how they are utilized today using the latest music writing software.

5705 **Music History**

This course is designed to help students understand how music has progressed throughout history and the stylistic changes music endured during different eras. In this class, students will listen to various styles of sacred and secular music from various countries as well as music by well-known composers. Students should be prepared to take notes and keep a detailed notebook. Inaddition, students will be required, on occasion, to write short papers/essays and give oral presentations. This semester course is open to all students who have an interest in the history of music. Previous knowledge of how to read music is not required, but would be helpful.

5710 History of Rock and Roll: 50's, 60's, 70's

This semester course was created to fulfill the art/music/fcs component of the graduation requirements. It is designed to help students understand what constitutes the idea of "rock and roll" and it's progression from the early 1950's through the 1970's. In this class, students will listen to examples of music from various artists/groups from the various time periods. In particular, considerable time is spent on music of the 1950's, 1960's, 1970's. Students should be prepared to take notes and keep a notebook for the class. In addition to quizzes/tests, students may be required to prepare an oral group presentation and an individual project.

5711 History of Rock and Roll: 80's, 90's 2000's

This semester course was created to fulfill the art/music/fcs component of the graduation requirements. It is designed to help students understand what constitutes the idea of "rock and roll" and it's progression from the early 1980's through the 2000's. In this class, students will listen to examples of music from various artists/groups from the various time periods. In particular, considerable time is spent on music of the 1980's, 1990's, and 2000's. Students should be prepared to take notes and keep a notebook for the class. In addition to quizzes/tests, students may be required to prepare an oral group presentation and an individual project.

Grade 10-12 .50 credit

.50credit

Grade 9-12 .50 credit

Grade 9-12

Grade 9-12 .50credit

5715 American Musical Theatre 1

The majority of the class work will be the study of 20th Century musical plays and musical comedies, and the interaction of plot, dialogue, and character as they serve as the framework for songs, dances, routines, and humorous episodes. Students willstudy excerpts from land mark musicals from the 1920's to the 1960's, as well as present day excerpts during their 'Clip of the Day.' Students will study famous composers, producers, librettists, choreographers, singers, dancers, and actors who were a part of this century's most successful productions on and off-Broadway. In addition, students will be learning how the elements of costume design, stage set, and lighting contribute to the overall musical production. This class will also develop an understanding of performance and students will demonstrate through performance: basic acting and singing skills. Students will be expected to try all basic performance skills as a part of this course.

5716 American Musical Theatre 2

(Prerequisite: Completion of American Musical Theatre 1 with a passing grade)

This class is an extension of American Musical Theatre I. The majority of the class work will be the continuation of study of 20th Century musical plays and musical comedies, and the interaction of plot, dialogue and character as they serve as the framework for songs, dances, routines and humorous episodes. Students will study full-length productions as well as excerpts fromlandmark musicals from the 1960's to present, including film adaptations of Broadway musical stage plays, as well as present day excerpts during their 'Clip of the Day.' Students will study famous composers, producers, librettists, choreographers, singers, dancers, and actors who were a part of this century's most successful productions on and off-Broadway. In addition, students will be learning how the elements of costume design, stage set, and lighting contribute to the overall musical production. This class will also develop an understanding of performance and students will demonstrate through performance: basic acting and dancing skills. Students will be expected to try all basic performance skills as a part of this course.

5720 Voice Class

This semester course was created to foster good vocal health and technique. Goals of the course are as follows: to improve technique, quality, and artistry of individual voices; and to focus class attention on common vocal problems and their remediation. Students will study three different genres of music including folk, classical, and musical theatre to perform in this class. In addition to performance, students will take an in-depth look at famous musicians from the 20th Century including the genres of folk, classical, and musical theatre. This course is performance based and all students are required to sing.

5721 Guitar

This semester course was created to encourage nontraditional instrumental students to pursue music study. This course also fulfills the art/music/fcs component of the graduation requirements at Jersey Shore High School. In this class we will discuss techniques and topics including chords, scales, notation, strumming, and fingerpicking. Students may be required to practice on their own, take written quizzes/tests, and perform both alone and as a class.

This course is open to students owning their own guitar.

Grade 10-12 .50 credit

Grade 10-12 .50 credit

Grade 10-12 .50 credit

Grade 10-12 .50 credit

Physical Education/Health

8000 **Physical Education**

The physical education program will provide a wide variety of activities to meet the mental, physical, social, and emotional needs, as well as the interests and abilities, of all students. The activities are designed to develop interpersonal skills, positive attitudes, a desire to participate, physical fitness, and an appreciation of lifetime and individual sports. The activities are offered to each student in a co-educational, modified elective program. Students will have the opportunity to develop proficiency in movement forms. This proficiency involves the ability to demonstrate a degree of consistency and skillfulness in the execution of basic as well as advanced skills in offered activities.

Included in the program is a wide variety of activities, such as, basic swimming, disc golf, soccer, pickle ball, volleyball, softball, basketball, badminton, recreational games, square dancing, aerobics, yoga, floor hockey, aquatic fitness, fitness walking, lacrosse, and kayaking, canoeing, snorkeling and a variety of aquatic games. The students will have use of the "fitness center" which includes: cardio equipment, hammer strength training, and a variety of circuit training will be available to all students. Furthermore all ninth grade students and "new" students to the district will be certified in the technique, safety, care, handling of equipment and procedures of the fitness center.

8049 Health & Wellness

This course is based off of the Pennsylvania State Standards for Health, Physical Education, Safety, Recreation, and Dance, as well as, the National Health Education Standards. The goals of this course are to introduce and explain the concept of wellness; provide current information on health issues; assist the student in developing a balanced lifestyle through understanding of the inter-relatedness of the physical, mental and emotional realms in making a healthy individual; provide an opportunity for students to examine and evaluate their personal relationships; and provide opportunities for the development of decision-making and critical-thinking skills.

8050 Health

This course provides units that enable students to develop knowledge, attitudes, and practices necessary for promoting individual and family health. The course also promotes continued learning with an emphasis on life time wellness. The students are called upon to work cooperatively and collaboratively to: (1) gain an understanding of health promotion and disease prevention concepts; (2) learn how to access valid health information, products, and services; (3) develop positive health behaviors through goal setting and decision making. Topics included are: career focus, first aid and safety, family life, and drug/alcohol awareness, nutrition, organ/tissue donor awareness, consumer and community health, injury prevention and safety.

0046/8114 **Health Occupations**

The Health Occupations course will enable students to engage in a more thorough understanding of the various occupations available in the Health field. Students will be provided information on: job descriptions, job responsibilities, including the negative and positive aspects of the jobs, training and educational requirements, salary/benefits, working environments, advancement opportunities, job security and retirement incentives through instruction, research and personal experiences with guest speakers. The course is an excellent way for students to become better prepared for making career decisions in Health related fields.

8115 Safety Concepts & First Aid (Health Elective)

In this course, students will examine fundamental attitudes, knowledge and skills to prepare for further study in career pathways in health, recreation, and community services. Concepts related to the field of health and wellness, health care, basic principles of anatomy, physiology and disease, medical terminology, organ and tissue donation, patient care, and basic safety and reporting protocols for providing care to individuals. Students will also obtain First Aid/CPR/AED certification upon passing skills and written exams with a minimum of 80%.

Grade 9-12 .50 credit

Grade 9 (Required) .50 credit

Grade 11 (Required) .50 credit

Grade 9 .50 credit

45

Grade 10-12 .50 credit

8116 Introduction to Health Careers

Examination of health majors and careers, including an evaluation of personalities in relation to career interests and values needed for success and satisfaction in the health care professions. Topics include discussion of requirements, daily roles, employment opportunities, and projections for the future in each of the selected health care fields. 2 Credits (2 Lecture).

♦♦8117 Medical Terminology Survey Grade 11-12

(MTR 100)

Introduction to the basic structures and rules of interpreting medical terminology, designed to develop the ability to read, understand, and write the medical language. 1 Credit (1 Lecture),

♦♦ 8118	Basics of Medical Terminology	Grade 12	1.00 credit
(MTR 104)			3 College Credits

Foundation for the use of the language of medicine, with emphasis on correct pronunciation and spelling, various word parts, abbreviations and symbols, and terms pertaining to body systems. Etiology, symptomatology, pathology, and diagnostic procedures for identifying various disease processes provide an increased understanding of medically related conditions and procedures. 3 Credits (3 Lecture)

Grade 11-12 .50 credit

2 College Credits

Grade 10-12 .50 credit

Science

Science

Students are required to earn a minimum of three (3) Science credits and score proficient or advanced on the Keystone Biology Exam to meet graduation requirements. Students who do not pass the Keystone Exam after the full year biology course, may be required to take the Keystone Biology Remediation course the following school year and will take the Keystone Biology Exam a second time.

Upon completion of 8th grade, students must choose a 442 pathway for the high school. A score of Advanced on the Keystone Algebra exam in 8th grade and a recommendation is a prerequisite for the Honors Pathway.

Career Pathway-Science

(Workforce, technical or 2 year associates degree pathway)

3122 **Earth and Space Science**

This course will provide students with an understanding and knowledge of the Earth and the Earth's place in the Universe. The following topics will be covered: Astronomy- the Earth in the Universe, Meteorology-the atmosphere of the Earth, and Geology-the solid part of the Earth. The students will develop proficiency in basic laboratory process skills such as measurement, data collection, organization, analysis, and forming conclusions.

3212 **Introduction to Biology**

This course is intended to introduce students to core concepts in Biology including: basic biological principles, structure and function at various levels of biological organization, cell growth and reproduction, genetics, evolution and ecology.

3220 **Biology / REQUIRED Course**

Biology is the Keystone science trigger course for the high school. A score of proficient or above must be earned on the Keystone Biology Exam in order to meet graduation requirements. The biology course has been designed to enhance student understanding of the structure and function of all living things, the student's place in this community of life and to provide each student the tools required to be successful on the Keystone Biology exam. Topics include: the cell, cell division, the cell's role in the establishment and maintenance of homeostasis, bioenergetics, ecology, genetics, and evolution.

3480 Chemistry

(Prerequisite: Biology. Prerequisite or concurrent: Algebra 1)

This Chemistry course is intended to introduce the high school student to chemical science. Topics studied include: measurement, matter and energy, atomic structure, the periodic table, and chemical bonding, chemical reactions, the mole, stoichiometric relationships, and solutions and concentration. The approach in the course emphasizes conceptual understanding and mastery ofkey concepts. The pace of the course is slower and the emphasis is less on mathematical problem solving than in the honorschemistry course. Hands-on laboratory work is an important component of the course. This course is intended for students who are entering the workforce or a 2 year degree program after high school. Students planning to attend a four-year college after high school should take CHM 100 - Fundamentals of Chemistry.

.50 credit

Grade 9

1.0 credit Grade 10

Grade 11-12 1.0 credit

Grade 9 .50 credit

3531 **Physics**

(Prerequisite: Algebra 1)

Physics is a course that enables students to discover how things work. Physics is all around us and we investigate force, work, and rate in mechanical, fluid, electrical, and thermal systems. Experiments and projects are integral parts of the class. Common objects and applications are stressed and discussed in their relation to force, work, and rates. The student will also investigate resistance, energy, power, and force transformers within the mechanical, fluid, electrical, and thermal systems. Investigating drag, ohm's law, and measuring the resistance of thermal insulation are just a few examples of experiments that are done in the resistance unit. Power and force transformers units include reading watt-hour meters and working with simple machines. This course should be considered by students planning on entering the workforce, or pursuing an Associate's Degree after high school or students planning on a four year degree in a non-science field. Students planning on attending a four year college program in a science, engineering, medical or technology related program should consider Honors Physics. This course is not an option if you have passed Honors Physics.

Grade 12

The electives listed at the end of the science section are available for all pathways in grade 12. Electives may be scheduled on a case by case basis depending upon the student pathway, grade level and prerequisites necessary.

Academic Pathway-Science

(2 year associates or 4 year college degree pathway)

3122 **Earth and Space Science**

This course will provide students with an understanding and knowledge of the Earth and the Earth's place in the Universe. The following topics will be covered: Astronomy- the Earth in the Universe, Meteorology-the atmosphere of the Earth, and Geology-the solid part of the Earth. The students will develop proficiency in basic laboratory process skills such as measurement, data collection, organization, analysis, and forming conclusions.

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Grade 11-12 1.0 credit

Grade 9 .50 credit

Grade 10 1.0 credit

.50 credit

Grade 9

49

(Prerequisite: Must have passed the Keystone Algebra Exam and take the Penn College Placement Exam This course CAN be taken after passing Chemistry, but a prior Chemistry course is not a prerequisite)

This course is weighted 1.1

♦♦ 3500

(CHM100)

Basic principles of chemistry and its practice in laboratory. Emphasis on the underlying structure of matter (atoms, ions, molecules) and how structure determines properties. Designed to teach chemistry terminology and symbols, as well as to develop analytical and critical thinking skills. This course is intended for students planning to attend Penn College as a non-science major. Future Penn College students can complete a required science course for their degree program by completion of this course. **Students who enroll in this course with the intent to receive college credit must pass the Penn College Placement exam. With successful completion, students will receive 4 credits for the CHM100 course through Pennsylvania College of Technology.**

3530 Honors Physics

Prerequisite: Algebra 2 with at least 86% average

Fundamentals of Chemistry

Honors Physics is an academic course dealing with the relation between matter and energy, beginning with measurement and continuing with force and motion, vectors, momentum, work energy and power, wave transfer of energy, light and optics, direct current electricity, circuits, magnetic applications of electric and magnetic fields, and nuclear energy. High emphasis is placed on laboratory work and problem solving. Honors Physics is *STRONGLY* recommended for students planning on pursuing a four-year degree in an engineering, medical, technology, or science field.

Grade 12

The electives listed at the end of the science section are available for all pathways in grade 12. Electives may be scheduled on a case-by-case basis depending upon the student pathway, grade level and prerequisites.

1.50 credits Grade 11-12 4.00 college credits

Grade 11-12 1.0 credit

Honors Pathway-Science

(4 year college degree pathway)

3219 **Biology 9 / REQUIRED Course**

Prerequisite: Recommended proficient on PSSA Reading Exam and must have a teacher recommendation.

Biology is the Keystone science trigger course for the high school. A score of proficient or above must be earned on the Keystone Biology Exam in order to meet graduation requirements. The biology course has been designed to enhance student understanding of the structure and function of all living things, the student's place in this community of life and to provide each student the tools required to be successful on the Keystone Biology exam. Topics include: the cell, cell division, the cell's role in the establishment and maintenance of homeostasis, bioenergetics, ecology, genetics, and evolution.

♦♦ 3500 CHM 100	Fundamentals of Chemistry	Grade 10-11	1.50 credits 4.00 college credits		
Prerequisite: N	Aust have passed the Keystone Algebra Exam and take the Penn Coll	ege PlacementExam			
This course CAN be taken after passing Chemistry, but a prior Chemistry course is not a prerequisite					

This course is weighted 1.1

Basic principles of chemistry and its practice in laboratory. Emphasis on the underlying structure of matter (atoms, ions, molecules) and how structure determines properties. Designed to teach chemistry terminology and symbols, as well as to develop analytical and critical thinking skills. This course is intended for students planning to attend Penn College as a non-science major. Future Penn College students can complete a required science course for their degree program by completion of this course. Students who enroll in this course with the intent to receive college credit must pass the Penn College Placement exam. With successful completion, students will receive 4 credits for the CHM100 course through Pennsylvania College of Technology.

3530 **Honors Physics**

(Prerequisite: Algebra 2 with at least 86% average)

Honors Physics is an academic course dealing with the relation between matter and energy, beginning with measurement and continuing with force and motion, vectors, momentum, work energy and power, wave transfer of energy, light and optics, direct current electricity, circuits, magnetic applications of electric and magnetic fields, and nuclear energy. High emphasis is placed on laboratory work and problem solving. Honors Physics is STRONGLY recommended for students planning to pursue a four-year degree in an engineering, medical, technology, or science field.

Grade 10-11 1.0 credit

Grade 9 1.0 credit

3471 Advanced Placement (A.P.) Chemistry

Grade 11-12 1.50 credits

This course is weighted 1.1

(Prerequisite - Must have a 90 or above average in both CHM 100 and in Algebra II)

Advanced placement chemistry is a college level course designed to prepare a high school student for higher education in science or a medical field. The A.P. Chemistry course is designed as an equivalent to a college level general chemistry class. The goal of the course is to prepare students to successfully complete the College Board's Advanced Placement Test in Chemistry. Passing the A.P. Chemistry test will enable students to take second year chemistry courses in their college freshman year or exempt them from science as a general elective. Students enrolling in AP Chemistry must have achieved a 90 average in Honors Chemistry and in Algebra II. The topics covered are those required by the College Board for the course and include: Structure of matter, states of matter, reactions, periodic trends, intro to organic chemistry, and laboratory techniques.

3401 Advanced Placement Environmental Science Grade 11-12 1.5 credits

(Prerequisites – Biology Prerequisite or concurrent with Honors Chemistry or Honors Physics with course

grades of 90 or above.) This course is weighted 1.1

The Advanced Placement Environmental Science course is designed to be the equivalent of a one-semester, introductory college course in environmental science, through which students engage with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world. The course requires that students identify and analyze natural and human-made environmental problems, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving or preventing them. Environmental Science is interdisciplinary, embracing topics from geology, biology, environmental studies, environmental science, chemistry, and geography. The goal of the course is to prepare students to successfully complete the College Board's Advanced Placement Test in Environmental Science.

Science - Electives

The following electives are available for all pathways in grade 12. Electives may be scheduled on a case by case basis depending upon the student pathway, grade level and prerequisites necessary.

3481 Analytical Chemistry

Analytical chemistry is a course intended for those interested in going into engineering, crime scene investigation (CSI), or other chemistry-related field. The application of the class can also be used for those interested in going into medical research. The course includes the theory and applications of analytical chemistry including: Laboratory emphasis on obtaining and interpreting quantitative data, Statistical data analysis, equilibrium expressions, pH, volumetric and gravimetric analysis, fundamentals of spectroscopy, and analytical separations. Laboratory experiments include acid-base behavior, spectroscopy (UV-visible and atomic absorption), and chromatography.

3420 Organic Chemistry

(Prerequisites- A course grade of a B+ or higher in CHM 100.) (Can be taken concurrently with AP Chem).

Organic chemistry is a sub discipline of chemistry that is prevalent in every person's life. Organic chemistry is the study of carbon containing compounds and their uses, reactions, functions, and application to life. The use of math in organic chemistry is very limited due to the nature of study and is very different from general chemistry. The student will study organic compounds, functional groups, basic organic reactions, synthesis pathways, and proper organic laboratory techniques. This course is designed for any student interested in any field of study involving chemistry, biology, certain engineering fields, or the medical field.

Grade 12 .50 credit

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Grude 12 .50 Cleun

Grade 12 .50 credit

663555 Human Anatomy and Physiology Survey (BIO 103)

Prerequisite: Passing grade in Biology and Chemistry and/or proficient score on Biology Keystone Exam

This course is weighted 1.1

Overview of human anatomy and physiology. Emphasis on the relationships between the structures and functions in each body system as well as the interrelationships among all body systems in the maintenance of homeostasis. Laboratory work complements and reinforces lecture materials. Qualifying score on math placement exam required. Recommended corequisite: ENL111.

3400 Environmental Science

Prerequisite: Successful completion of Biology & Algebra

Environmental Science emphasizes global environmental concepts as they relate to local issues. Students will perform case study analysis, problem-solving, project creation and development, computer and internet use, oral reports/discussions, laboratory measurement, data collection and analysis, along with other activities utilized to promote student-centered learning.

3410 Astronomy

A survey of modern astronomy introducing topics from our solar system and other planetary systems, galaxies, the evolution of stars, and the methods and technology used to explore planetary and stellar processes. Included with this course is a lab that introduces the student to astronomical observations with the use of a series of telescopes and lab exercises.

3330 Genetics and Microbiology

(Prerequisite: Successful completion of Biology)

Genetics requires a more detailed examination of the subject and will emphasize problemsolving, decision-making, critical thinking, applied learning, and knowledge. The topics covered in this course will range from Mendelian genetics to current genetics technologies and discoveries as well as their practical and ethical implications. Microbiology is a course with a major focus on the role of microorganisms such as bacteria and viruses indiseases. Other topics included in this course are some of the positive roles of microorganisms in areas such as food production, ecology and future technology. Laboratory work is stressed. This course will help prepare you to continue your Science education at the college level to prepare for careers in medical and health related fields.

Grade 11-12 1.00 credits 3.00 college Credits

.50 credit

.50 credit

Grade 11-12 1.0 credit

Grade 11-12

Grade 11-12

Social Studies

The high school social studies program is designed to impart critical and analytical thinking skills to all students. As students explore history and are introduced to disciplines within the social sciences, they will also refine their written and oral communication skills. All students are expected to read assignments critically and participate actively in class discussions and activities.

PA School Code requires all students to be enrolled in the following history courses during their high school career:

- **United States History**
- World History
- **American Government**
- **Economics**

Career Pathway-Social Studies

(Workforce, technical or 2 year associates degree pathway)

1123 **United States History**

This course is designed to give career pathway students a broad background in the social, political, and economic development of the United States from 1815 to the present. Topics include, but are not limited to, westward expansion, and causes of the Civil War, Reconstruction, the Gilded Age, Populism, Progressivism, American Expansionism, New Deal Liberalism, World Wars I and II, the Cold War, the Civil Rights Movement, the Vietnam War, 1960's Liberalism, and Neo-Conservatism.

1320 World History

This introductory course records the contributions of individuals as it chronicles the development of world societies from the Renaissance to the present. Students will examine the conflict and cooperation between societies as they analyze political and social systems, economic and technological advances, world religions, cultural diffusion, and globalization. Special emphasis will be placed on the way geography has impacted human development. Considerable attention will also be given to developing historical thinking and communication skills.

1420 **American Government***

The purpose of the course American Government is to help students gain an understanding of how our nation's government is organized and operates. Students will also learn about the rights and responsibilities of the citizen in government. Students will be exposed to the process by which public policy is shaped in order to prepare them to make informed, discriminating judgments on questions that will affect the future of the nation and the world. ****This is a required course for graduation****

Economics* 1421

The study of economics will introduce students to the foundations and operations of the American free enterprise system and acquaint the students with other economic systems in the world. The theory of the market economy and the modifications that have been made to it will also be studied. Students will examine domestic and international challenges to the economy of the United States and analyze complex global economic issues. By providing the students with economic knowledge and critical thinking skills, this course ensures that each student will be prepared to participate actively and intelligently in civic issues.

Grade 10

Grade 9

Grade 11-12 .50 credit

Grade 11-12 .50 credit

1.0 credit

1.0 credit

Academic Pathway-Social Studies

(2 year associates or 4 year college degree pathway)

1120 **United States History 1**

This course is designed to give all students a broad background in the social, political, and economic development of the United States from the French and Indian War to the end of the Reconstruction era. Topics include, but are not limited to, the American Revolution, formation of a republican form of government, the birth of political parties, westward expansion, and causes of the Civil War. United States geography will also be an integral part of the course.

1220 **United States History 2**

This is a chronological survey of the major political, economic, and social developments in United States history since the Civil War. Topics will include, but are not limited to Reconstruction, the Gilded Age, Populism, Progressivism, American Expansionism, New Deal Liberalism, World Wars I and II, the Cold War, the Civil Rights Movement, the Vietnam War, 1960's Liberalism, and Neo-Conservatism. As students learn about our nation's history, they will have the opportunity to improve their historical thinking and communication skills.

1320 World History

This introductory course records the contributions of individuals as it chronicles the development of world societies from the Renaissance to the present. Students will examine the conflict and cooperation between societies as they analyze political and social systems, economic and technological advances, world religions, cultural diffusion, and globalization. Special emphasis will be placed on the way geography has impacted human development. Considerable attention will also be given to developing historical thinking and communication skills.

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Grade 9 1.0 credit

Grade 10 1.0 credit

1.0 credit

.50 credit

.50 credit

(Gr 11)

Grade 12

Grade 12

Honors Pathway-Social Studies

(4 year college degree pathway)

1130 **19th Century History Honors**

This college preparatory course will help students develop critical thinking and writing skills that they will use throughout high school and college. It will help students learn to think historically as they compare economic, political, intellectual, and social developments in Europe and the United States from the Seven Years' War to the end of the nineteenth century. Topics include, but are not limited to, the Enlightenment, American Revolution, French Revolution and Napoleon, Early American Republic, Jacksonian Democracy, the American Civil War, and European Imperialism. Students will be expected to read and write about challenging primary and secondary source materials. Since this course is also designed to prepare students for future Advanced Placement (AP) coursework in European and United States history, special emphasis will be placed on the critical thinking skills needed to complete the multiple choice and free response portions of the AP exam as well as methods to analyze primary documents. Note: All students who score at the advanced level on the reading portion of 8th Grade PSSA Exam will automatically be enrolled in this course as it will help to expand and refine their abilities to interpret, analyze and evaluate non-fiction.

1230 **20th Century History Honors**

(Prerequisite: Students must have at least a 90% in 19th Century History Honors or a 94% in Academic United States History from 1764 to 1877and a score of Proficient or better on the Keystone Literature test)

This introductory course is designed to prepare advanced history students for future Advanced Placement (AP) coursework in European and American history. This course will help students learn to think historically as they compare economic, political, intellectual, and social developments in Europe and the United States from end of the nineteenth century until the turn of the twenty-first century. Emphasis will be placed on how liberalism, conservatism, and radicalism evolved in Europe and the United States throughout the twentieth century. Topics include, but are not limited to, American and European Imperialism, Populism, Progressivism, World War I, the Russian Revolution, the Great Depression, the Rise of Fascism, New Deal Liberalism, World War II, the Cold War, McCarthyism, the Civil Rights Movement, the Vietnam War, and the Reagan Revolution. Students will be expected to read and write about challenging primary and secondary source materials. Special emphasis will be placed on learning how to write Document-Based Questions (DBQs) for the AP exam. Considerable attention will also be given to the development of the critical thinking and communication skills necessary for success on the multiple choice and free response portions of the AP exam.

1350 **European History – Advanced Placement**

(Prerequisite: It is required that students have obtained at least a 90% average in 20th Century History Honors)

This course is weighted 1.1

Advanced Placement European History is a challenging course designed to be the equivalent of a college or university level Western Civilization survey course. The course examines the political, social, economic, intellectual, and cultural history of Europe from the Renaissance to the 21st Century. Students should possess strong reading and writing skills and be willing to devote substantial time to the completion of class assignments. Emphasis is placed on analytical writing, class discussion, primary source interpretation, and critical reading of secondary sources. Students who enroll in this course will be expected to read and write at the college level. They must be prepared to dedicate substantial time outside of the normal school day to the study of history, and need to be committed to taking the Advanced Placement history exam offered in early May each year. This course is designed for 11th grade advanced students.

55

Grade 9 1.0 credit

Grade 10 1.0 credit

Grade 11 1.0 credit

1.0 credit

1450 Advanced Placement United States History

This course is weighted 1.1

Advanced Placement United States History is a challenging course designed to be the equivalent of a college or university level United States history survey course. The course examines the political, social, economic, intellectual, and cultural history of the United States from colonial times to the present. Students should possess strong reading and writing skills and be willing to devote substantial time to the completion of class assignments. Emphasis is placed on analytical writing, class discussion, primary source interpretation, and critical reading of secondary sources. Students who enroll in this course will be expected to read and write at the college level. They must be prepared to dedicate substantial time outside of the normal school day to the study of history, and need to be committed to taking the Advanced Placement history exam offered in early May each year.

Social Studies - Electives

The following elective is available for all pathways. It may be scheduled on a case by case basis depending upon the student pathway, grade level and prerequisites necessary.

1520 Crime and the Law

The purpose of this elective course is to give students a basic understanding of our criminal and legal systems. Topics included, but are not limited to, the history of our legal system, the courts, causes of crime, and entire criminal justice system. The focus of the course is on criminal law with students actively participating in two mock trials and one mock crime scene investigation.

1530 Introduction to Psychology

Psychology is the study of mental processes, and how the mind and body work together. The content of this course includes, but is not limited to, the history of psychology, research, statistics, personal and social development, cognitive and emotional development, sensation and perception, sleep and dreams, conditioning, motivation, disorders and forms of therapy.

.50 credit

.50 credit

Grade 11-12

Grade 11-12

Grade 12

Social Studies