JERSEY SHORE AREA SENIOR HIGH SCHOOL

2023-2024

Learning Pathways

Course Catalog

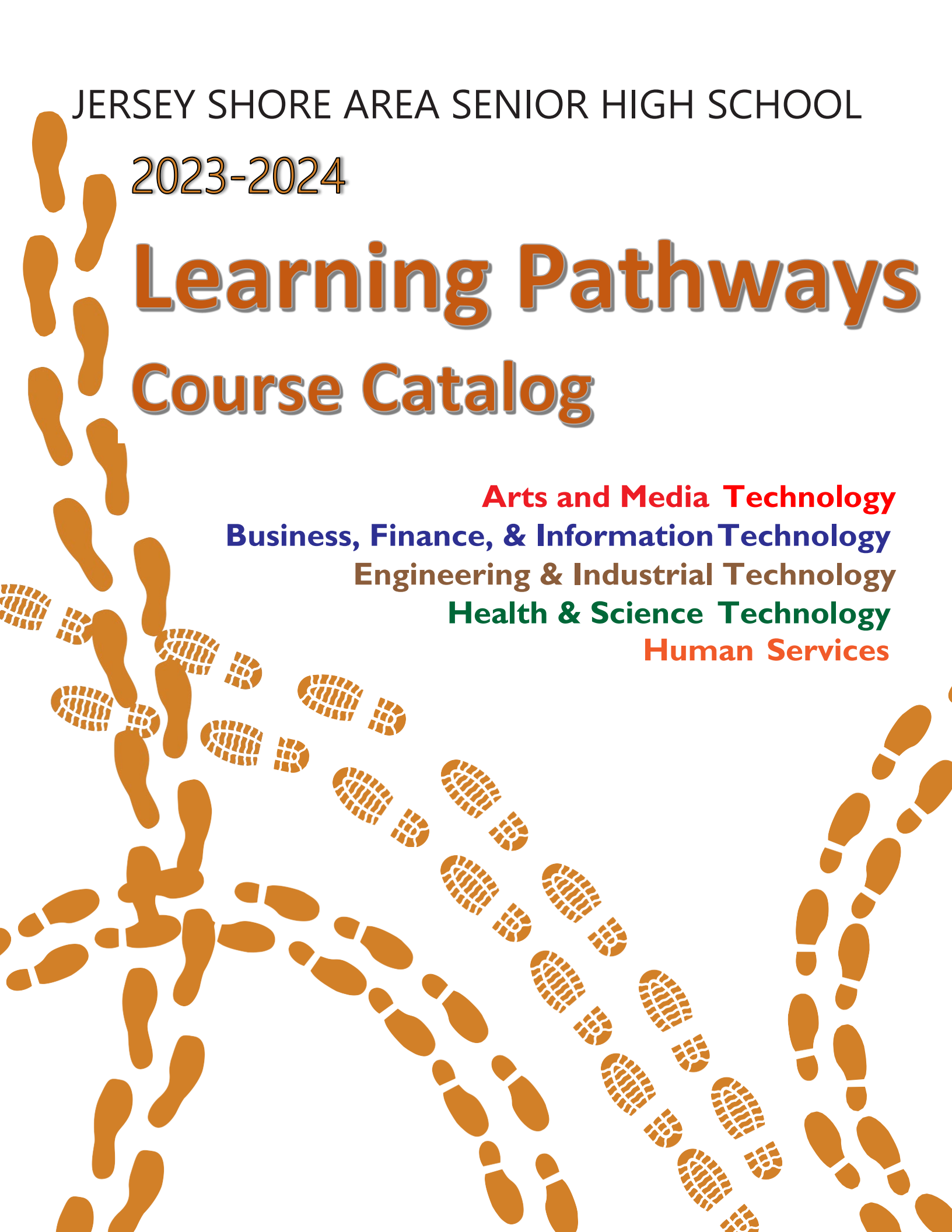
Arts and Media Technology

Business, Finance, & Information Technology

Engineering & Industrial Technology

Health & Science Technology

Human Services



Compliance Statement

It is the policy of the Jersey Shore Area School District not to discriminate on the basis of race, sex, religion, color, national origin, age, handicap or limited English proficiency in its educational programs, services, facilities, activities or employment policies as required by Title IX of the 1972 Educational Amendments, Title VI and VII of the Civil Rights Act of 1964, as amended, Section 504 Regulations of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, Section 204 Regulations of the 1984 Carl D. Perkins Act or any applicable federal statute.

For information regarding programs, services, activities, and facilities that are accessible to and usable by handicapped persons or for inquiries regarding civil rights compliance, contact: Jersey Shore Area School District, 75 A&P Drive, Jersey Shore, PA 17740, 570- 398-1561; or the Director of the Office of Civil Rights, Department of Health, Education and Welfare, Washington, D.C.

FOREWORD

This catalog is presented by the entire staff of Jersey Shore Area Senior High School (JSASHS) as a source of information regarding the courses of study. This Pathway Guide outlines the tracks of study at the high school and identified the course offerings that will qualify a student as a completer in that specific pathway. A course description for each subject has been written so that the students will be aware of the material to be covered in each class. The courses listed in this guide are tentative offerings for the ***2023 – 2024 school year***. A course will be offered **only if** enough students request it.

We are interested in providing the finest education possible through offering a diversified curriculum. Students and parents must accept the responsibility of making careful and wise decisions. The teachers, counselors, and administrative staff of JSASHS are ready to assist all students in selecting a schedule that will fit individual needs and interests. Before attempting to make course selections, the students and parents should carefully read the material found in this guide. Special attention should be given to the **requirements for graduation** which are as follows:

1. The subjects in which the required credits are earned will depend upon the course of study chosen.
2. Accumulation of **twenty-seven** (**27.0**) credits in grades nine (9) through twelve (12).
3. Completing all state requirements in accordance with ACT 158.
4. Each student must participate in and pass certain required subjects.

Requirements for each grade level are as follows:

- 0 – 5.75 credits Freshman Status
- 6 – 12.75 credits Sophomore Status
- 13 – 18.75 credits Junior Status
- 19 + credits Senior Status

	Credit Requirements	
Content Areas	**Career Ready Four (4) Year College**	**Career Ready Two (2) Year College or Workforce**
English	4.0	4.0
Mathematics	4.0	4.0
Science	4.0	3.0 or 4.0
Social Studies	4.0	3.0 or 4.0
Physical Education	2.0	2.0
Computer Education **Computer Applications (0.5)* **Personal / Business Finance (0.5)*	1.0	1.0
Pathway Elective Education **Art – Music – Family Consumer Science (0.5)* **Technology Ed - CTE (0.5)*	1.0	1.0
Health Education	0.5	0.5
Career and Technical Education Courses – Pathway Elective Courses – General Elective Courses	6.5	7.5 or 8.5
Total Credits	**27.0**	**27.0**

SELECTION/SCHEDULING OF COURSES

Students are to have a complete schedule prior to the start of school. Students are encouraged to register for a full eight period day. Once the school year begins, students may add classes if there is a free period during the day**. Requests to change a schedule after the start of the year and will be limited to those students seeking to advance their schedule.** Consideration will also be given to schedule changes to better support the completion of a specified Pathway to fulfill college-career readiness requirements. Students and parents are encouraged to review the Pathway Guide that outlines the tracks of study at the high school. Each pathway includes specific, required classes and identified electives. To aide in the scheduling process students should identify and follow a pathway to graduation.

WITHDRAW/FAIL

Any student/parent who elects to be removed from a class for any reason beyond seeking to advance a schedule will receive a grade of a withdraw fail (WF) on the high school transcript which will reflect a percentage grade of a 65.

INTERVENTIONS

Jersey Shore High School offers a variety of tiered interventions to support students. Academic support to students is offered by teachers during the SHORE period. School personnel also evaluate needs of students throughout the academic year and work to develop plans to fit the needs of the student(s). Targeted remediation and tutoring programs are conducted when the schedule allows. We encourage students and/or families to reach out to teachers and the guidance office regarding tiered supports for students.

DUAL ENROLLMENT

A number of our classes are dual enrollment classes in conjunction with Pennsylvania College of Technology (PCT) and Lackawanna Community College (LCC). These courses create an official college transcript for the class(es) in addition to being identified on your high school transcript. Due to an agreement between PCT and the JSASD there is no cost to take PCT courses. There is a $100 per credit tuition costs for all Lackawanna Community College courses. Additional student costs may include the expense for textbooks which will vary from $0 - $200 depending on the course for both PCT and LCC. Course marked with ♦♦identify the course as a dual enrollment. Students also have the option to take classes through Mansfield University, Indiana University of Pennsylvania, and the University of Northern Ohio.

Courses NOT NCAA Approved

- Business Mathematics
- Career Algebra 1, 2, and 3
- SAT Mathematics

Administrative Team's Message

Dear Students and Parents:

Welcome to the course selection processes for the 2023-24 school year. Selection of classes is your first step towards preparing for the next school year. You will find that students take a variety of classes in the core subject areas and pathway programming. We encourage you to read this material carefully and select those classes or level of classes that will help you to achieve your post-graduation goal

Our main objective is to provide students with a structured path to graduation that prepares all students to enter the workforce, attend college, or join the military. Regardless of the path chosen by the student, we want you to be prepared so that you have a choice.

Based upon the courses and classes selected by our students, we build a master schedule. The number of sections offered, staffing patterns, and room usage all depend on the number of students requesting a particular course. We encourage you to give careful consideration to your requests. *The minimum number of classes we require is seven credits, including physical education.*
This is your opportunity to prepare yourself for your future.

Sincerely,

Steven Keen, Principal
Elizabeth Segraves, Assistant Principal

Message from the Counselors

Jersey Shore High School offers a variety of programs to develop necessary skills for success after graduation. It is important to make appropriate decisions as early as possible based upon your interests and goals. You are making choices and decisions about your life so consider what it is you like and where you want to be in ten years.

Selecting courses is an important matter. Using guidance from others **– parents, friends, teachers and counselors –** can be helpful, but remember that the decisions that are right for someone else may not be appropriate for you. Make choices based on your future goals and needs. Your high school program should be planned with your post-high school objectives in mind; employment, advanced training, the military, education and/or use of leisure time.

Your counselor will meet with you individual to help you make a decision as to which pathway is right for you. It is important that you take time to review the course offerings before scheduling so you are aware of the required courses for a pathway as well as available electives.

We hope our efforts in preparing this guide will assist you in making wise choices when selecting courses. Have an enjoyable and rewarding year.

High School Counselors:

Mrs. Mallory Myers – Grade 9
Ms. Holly Walker–Grades 10-12 A-L
Mrs. Katie Steppe – Grade 10-12 M-Z
& CTE

Career and Technical Education (CTE) Courses

Course Title	Pennsylvania CIP Codes	Career and Technical Education Program Requirements
Automotive Technology	**47.0604**	*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.*
Building Property Maintenance	**46.0401**	
Business: Accounting Technology	**52.0302**	
Business: Office Assistant	**52.0401**	
Business: Sales and Marketing	**52.1801**	
Child Care	**19.0708**	
Communications & Digital Media	**10.9999**	
Computer Systems Networking	**11.0901**	
Construction Trades	**46.9999**	
Culinary / Inst. Food Workers	**12.0508**	
Manufacturing Engineering	**48.9999**	
For more information regarding the CTE programs offered at the (JSASH), contact one of our school counselors.		*The Department of Education has approved the twelve (CTE) programs offered here at (JSASH). These CTE programs are built around high expectations for student learning. These expectations include the development of strong reading, writing, numeracy, problem solving, and teamwork skills, in addition to the practical and tangible career skills that motivate students and help them develop a career path for future education and work.* *Students who enroll in a CTE program are committed to a program of study in their eleventh and twelfth grades - culminating in taking a nationally recognized skills test. Many colleges across the country award college credit for scoring high on these nationally recognized skills tests.*

Cooperative Education and Diversified Occupations

The Cooperative Education and Diversified Occupations programs provides training through the use of business and industry to help bridge the gap between school and employment. Cooperative Education is a unique plan of education designed to integrate classroom study with planned, supervised, practical work experience connected with a Career and Technical Education Program of Study. The Diversified Occupations experience is a unique plan of education designed to integrate classroom study with planned, supervised, practical work experience which the district does ***not*** have a connected Career and Technical Education Program of Study. 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.**

Dual Enrollment Courses

Course Number	Course Title	Penn College NOW Requirements
BCT103	Construction Hand and Power Tools	*Students may need to purchase a text book for a Penn College NOW and Lackawanna Community College courses. Talk to your guidance counselor if this is a financial difficulty.* *PCT Registered students will need to take a placement test to determine readiness for the class. Placement tests in Reading, Math and/or English will be required.* *Penn College and Lackawanna Community College will provide a transcript upon request. Courses will also be recorded on the high school transcript.* *Dual Enrollment courses will not be offered as independent study courses.* *Due to an agreement between the Pennsylvania College of Technology and Jersey Shore Area School District; there is no cost to students or parents for enrolling into PCT Dual Enrollment.* *There is a $100 per credit tuition fee for all Lackawanna Community College Courses which must be submitted with registration prior to the start of the school year.*
BWM150	Introduction to Web Page Development	
CHM100	Fundamentals of Chemistry	
EET124	Introduction to Networking	
EET145	Networking 2	
ENL111	English Composition 1	
MTH123/125	Technical Algebra and Trig I and II	
PPT115	The Plastics Industry	
MTR100	Medical Terminology Survey	
MTR104	Basics of Medical Terminology	
BIO103	Human Anatomy and Physiology	
MGT105	Introduction to Management	
MTT233	Machine Tool Applications	
WEL 100	Introduction to Welding	
CIM 104	CNC Machining & Programming	
CIM 102	Introduction to CAD/CAM	
LCC-ACC	Financial Accounting	
LCC-CIS	Computer Information Systems	
**Pending Approval*		

Future Ready PA Index

The Pennsylvania Future Ready Index, referred to as the Future Ready PA Index, allows school systems more flexibility for meeting school accountability measures and replaces the School Performance Profile. JSASD will use the **SmartFutures** program to manage the Future Ready expectations. The Future Ready PA Index indicators are as follows:

1. **State Assessment Measures**
    - Proficient and Advanced Scores on the Keystone Exams
    - Annual Growth Expectations (PVAAS)
2. **On-Track Measures**
    - English Language Proficiency
    - Chronic Absenteeism

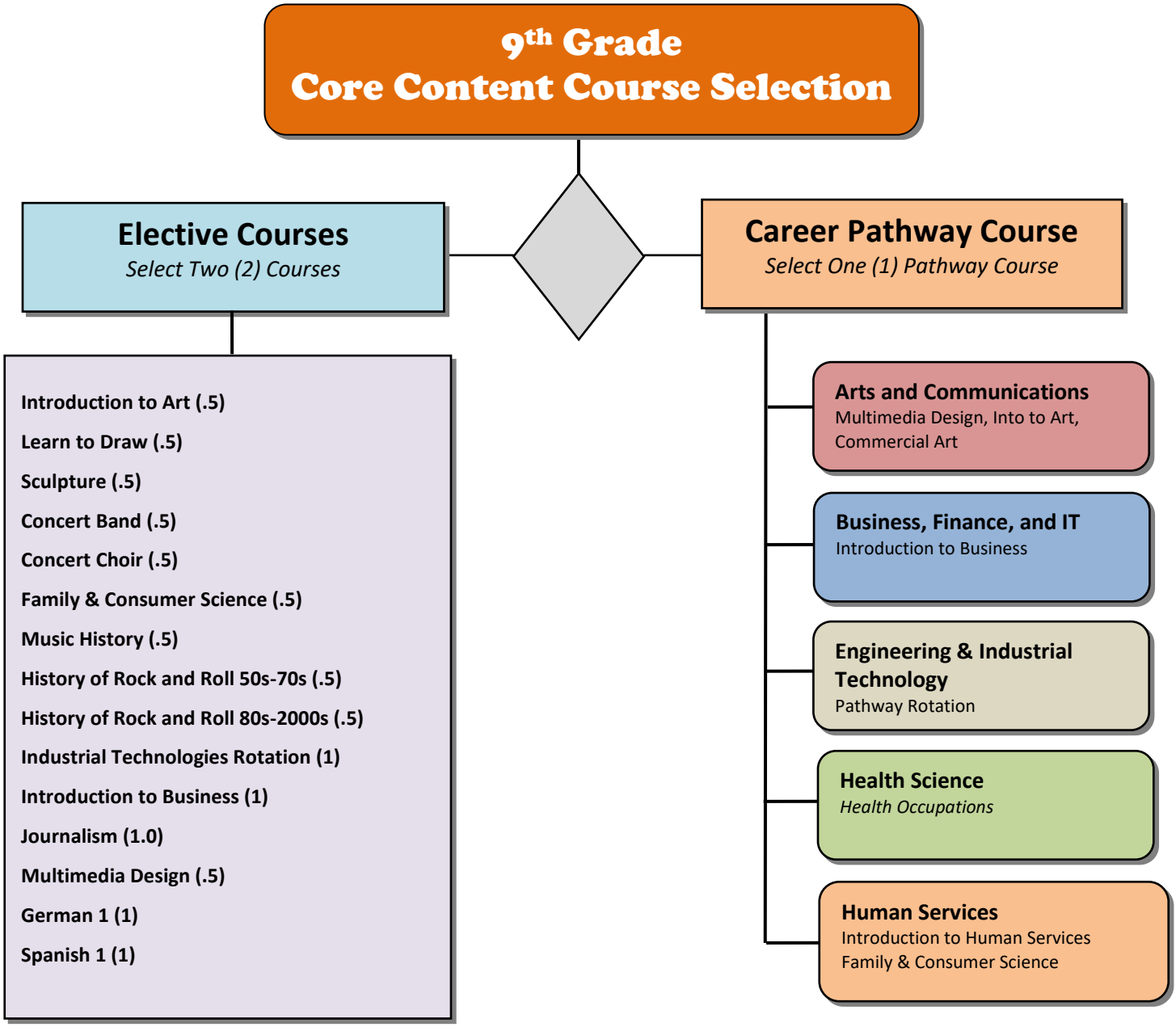
3. **College and Career Measures**
    - Graduation Rate
    - Career Readiness Benchmark
    - Industry Based Learning (Career & Technical Education)
    - Rigorous Courses of Study (Career Pathway Model)
    - Post-Secondary Transition to School, Military, or Work

Pennsylvania Career Education and Work (CEW) Standards

Pennsylvania's economic future depends on having a well-educated and skilled workforce. No student should leave secondary education without a solid foundation in Career Education and Work. It is the rapidly changing workplace and the demand for continuous learning and innovation on the part of the workers that drive the need to establish academic standards in Career Education and Work. Through a comprehensive approach, Career Education and Work Standards complement all disciplines and other academic standards. If Pennsylvania's students are to succeed in the workplace, there are certain skills that they need to obtain prior to graduation from high school. These skills have been identified in the Career Education and Work Standards, but it is up to individual school districts to decide how they are to be taught. Districts can implement integration strategies within existing disciplines or can implement stand-alone courses to specifically address these standards.

CEW Standard 1: Career Awareness and Preparation
Pennsylvania public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge pertaining to career interests and aptitudes.
CEW Standard 2: Career Acquisition
Pennsylvania public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills pertaining to career acquisition skills such as resume writing, interviewing, and communications.
CEW Standard 3: Career Retention and Advancement
Pennsylvania public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills pertaining to workplace skills, human resources, personal finance, and career retention.
CEW Standard 4: Entrepreneurship
Pennsylvania public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills pertaining to entrepreneurship and personal career goals.

Learning Pathway Flowchart for Freshman Year



** Tentative list of courses*

Arts and Communications Pathway

This pathway is designed to cultivate students' awareness, interpretation, application and production of visual, verbal and written work.

Pathway Focus Areas

***Communication Technology (CT)**
***Performing Arts (PA)**
***Music Industry (MI)**
***Visual Arts (VA)**

Are you interested in…	Can you…	Do you enjoy…
Acting	Act	Developing creative solutions
Attending concerts	Be creative	Making videos
Decorating	Draw	Performing in front of a live audience
Fashion	Meet deadlines	Seeking creative ideas
Interviewing and reviewing	Paint	Working with sound effects
Multi-media	Sculpt	Working with computers
News reporting and writing	Sing	Working with film props
Performing in a band, chorus	Play an instrument	Working with illustrations
Radio, TV, Film, Video	Write and conduct interviews	
	Write	

If you answered "yes" to most of these questions, you might consider a future in one of the same occupations listed below based on their level of post-secondary training.

Sample Careers

Entry (OJT)	Technical/Skilled (1-3 yrs)	Professional (4 +yrs)
Circulation (CT)	Actor (PA)	Advertising Creator (VA)
Copy Person (CT)	Animator (VA)	Art Director (VA)
Desktop Publisher (CT)	Artist (VA)	Art or Music Teacher (CT)
Film Loader (VA)	Billboard and Sign Artist (CT)	Art Historian (VA)
Floral Designer (VA)	Book Illustrator (CT)	Art Restorer (VA)
Florist (VA)	Broadcast Technician (VA)	Cinematographer (PA)
Model (PA)	Camera Technician (VA)	Composer (PA)
Newsroom Worker (CT)	Choreographer (PA)	Copy Writer (CT)
Projectionist (VA)	Computer Graphic Artist (VA, CT)	Curator (VA)
Radio Operator (MI)	Dancer (PA)	Film Editor (CT)
Set Designer (PA)	Disc jockey (PA)	Illustrator (VA)
Sound Technician (MI)	Designer / Stylist (VA)	Industrial Designer (VA)
Stage Hand (PA)	Make-up Artist (VA)	Music Critic (MI)
Stunt Performer (PA)	Musician (PA, MI)	Music Director (PA)
	Photographer (VA)	News Broadcaster (CT)
	Recording Engineer (MI)	Telecommunications (CT)
	Talent Agent (PA)	Writer (CT)
	Video Manager (VA)	
	Web Designer (CT)	

Check out Occupational Outlook Handbook – www.bls.gov/OCO/ or check your Choices profile

Holland Codes for Arts & Comm.	Artistic	Realistic

Arts & Communications: Art Industry Pathway Course Progression

	9th Grade	10th Grade	11th Grade	12th Grade
English	English 9 or	English 10	English 11 or College Prep English	Fantasy Fiction Technical Comm – Biography
	Honors English 1	English Honors 2	English Honors 3	English Comp (ENG111) & Biography or AP English
Mathematics	Career Algebra 1 or	Career Algebra 2 or	Career Algebra 3 or	Unified Algebra & Trig or Business Math
	Academic Algebra 1 or	Academic Alg or Academic Geometry	Academic Alg or Academic Geometry	Academic Trig / Pre-Calc or College Ready Algebra or Bus. Math
	Geometry Honors	Honors Algebra 2	Trig / Pre-Calc Honors Statistics or SAT Math	College Ready Algebra or Calculus or AP Calculus
Science	Intro to Biology & Earth / Space	Biology or	Chemistry (CHM100) or Physics (Honors)	Chemistry (CHM100) or Physics (Honors) or Science Electives
	Biology 9	Chemistry (CHM100) or Physics (Honors)	AP Chemistry or AP Environmental	AP Chemistry or AP Environmental
Social Studies	United States History or	World History or	American Gov't and Economics or	American Gov't and Economics
	US History 1 or	US History 2 or	World History or	American Gov't and Economics
	19th Century History Honors	20th Century History Honors	AP European History	AP US History
Required General Electives	Computer Applications (.5) Health 9 (.5)/ Physical Education (.5) Art-Music-Pathway Electives (1)	Physical Education (.5) Art-Music-Pathway Electives (1)	Personal / Business Finance (.5) Physical Education (1) Art-Music-Pathway Electives (1)	Physical Education (.5) Art-Music-Pathway Electives (1)

Pathway Credits	**1-3**	**1-3**	**3**	**3**
Core Pathway Courses	*(7000)* **Intro. to Art (.5)** *(7160)* **Commer. Art (.5)**	*(7001)* **Art and Design (.5)** *(7101)* **Learn to Draw (.5)**	*(7100)* **Learn to Paint (.5)** *(7032)* **Pottery 2 (.5)**	*(7135)* **Sculpture (.5)** *(7005)* **Mixed Media (.5)**
	(6021) **Multimedia Design (.5)**	*(7031)* **Pottery 1 (.5)** *(7022)* **Fiber Crafts (.5)**	*(7016)* **Stage and Set Design (.5)**	*(7033)* **Pottery 3 (.5)** *(7023)* **Glass Crafts (.5)**
	Elective	*Elective*	*Electives*	*Elective*

Arts & Communications: Communication Technology Pathway Course Progression

CIP: 10.9999	9th Grade	10th Grade	11th Grade	12th Grade
English	English 9 or	English 10	English 11 or College Prep English	Fantasy Fiction Technical Comm – Biography
	Honors English 1	English Honors 2	English Honors 3	English Comp (ENG111) & Biography or AP English
Mathematics	Career Algebra 1 or	Career Algebra 2 or	Career Algebra 3 or	Unified Algebra & Trig or Business Math
	Academic Algebra 1 or	Academic Alg or Academic Geometry	Academic Alg or Academic Geometry	Academic Trig / Pre-Calc or College Ready Algebra or Bus. Math
	Geometry Honors	Honors Algebra 2	Trig / Pre-Calc Honors Statistics or SAT Math	College Ready Algebra or Calculus or AP Calculus
Science	Intro to Biology & Earth / Space	Biology or	Chemistry (CHM100) or Physics (Honors)	Chemistry (CHM100) or Physics (Honors) or Science Electives
	Biology 9	Chemistry (CHM100) or Physics (Honors)	AP Chemistry or AP Environmental	AP Chemistry or AP Environmental
Social Studies	United States History or	World History or	American Gov't and Economics or	American Gov't and Economics
	US History 1 or	US History 2 or	World History or	American Gov't and Economics
	19th Century History Honors	20th Century History Honors	AP European History	AP US History
Required General Electives	Computer Applications (.5) Health 9 (.5)/ Physical Education (.5) Art-Music-Pathway Electives (1)	Physical Education (.5) Art-Music-Pathway Electives (1)	Personal / Business Finance (.5) Physical Education (1) Art-Music-Pathway Electives (1)	Physical Education (.5) Art-Music-Pathway Electives (1)

Pathway Credits	1-3	1-3	1-3	1-3
Core Pathway Courses ***(see CTE section for course descriptions)***	*(6021)* **Multimedia Design (.5)**	*(9140)* **Introduction to Communications & Digital Media (.5)**	**(9145) Communications & Digital Media 1**	**(9146) Communications & Digital Media 2**
	(7000) ***Intro. to Art (.5)***	***Commercial Art (.5)***		
	OR **Pathway Rotation (1)**	*Elective*	*(4438)* **Web Page Development (.5)** **CTE FLEX COURSE (.5)**	**CTE FLEX COURSE (.5)** *Elective*

Arts & Communications: Music Industry Pathway Course Progression

	9th Grade	10th Grade	11th Grade	12th Grade
English	English 9 or	English 10	English 11 or College Prep English	Fantasy Fiction Technical Comm – Biography
	Honors English 1	English Honors 2	English Honors 3	English Comp (ENG111) & Biography or AP English
Mathematics	Career Algebra 1 or	Career Algebra 2 or	Career Algebra 3 or	Unified Algebra & Trig or Business Math
	Academic Algebra 1 or	Academic Alg or Academic Geometry	Academic Alg or Academic Geometry	Academic Trig / Pre-Calc or College Ready Algebra or Bus. Math
	Geometry Honors	Honors Algebra 2	Trig / Pre-Calc Honors Statistics or SAT Math	College Ready Algebra or Calculus or AP Calculus
Science	Intro to Biology & Earth / Space	Biology or	Chemistry (CHM100) or Physics (Honors)	Chemistry (CHM100) or Physics (Honors) or Science Electives
	Biology 9	Chemistry (CHM100) or Physics (Honors)	AP Chemistry or AP Environmental	AP Chemistry or AP Environmental
Social Studies	United States History or	World History or	American Gov't and Economics or	American Gov't and Economics
	US History 1 or	US History 2 or	World History or	American Gov't and Economics
	19th Century History Honors	20th Century History Honors	AP US History	AP European History
Required General Electives	Computer Applications (.5) Health 9 (.5)/ Physical Education (.5) Art-Music-Pathway Electives (1)	Physical Education (.5) Art-Music-Pathway Electives (1)	Personal / Business Finance (.5) Physical Education (1) Art-Music-Pathway Electives (1)	Physical Education (.5) Art-Music-Pathway Electives (1)

Pathway Credits	**1-3**	**1-3**	**3**	**3**
Core Pathway Courses MUSIC FOCUS *Note: ensemble performance credit required every semester.* **Classes Pending Approval**	**REQ: Choir/Band (.5/1)** *(5705)* **Music History (.5)** *(5710)* **History of Rock 1 (.5)**	**REQ: Choir/Band (.5/1)** *(5711)* **History of Rock 2 (.5)** *Elective (.5)*	**REQ: Choir/Band (.5/1)** *(5720)* **Voice (.5)**	**REQ: Choir/Band (.5/1)** *Elective (.5)*
	(4210) **Intro to Business**	*(5715 / 5716)* **Amer. Music Theatre 1, 2 (1)**	*(5606)* ***Stage Technology (.5)** *(5721)* **Guitar (.5)**	*(5607)* **Song Writing (.5)** *Elective (.5)*
	Elective (1)	*(4342)* **Accounting 1 (1.0)**	*(5700 / 5701)* **Music Theory 1, 2 (1)**	*(4700)* **Business Law 1 (.5)** *Elective (.5)*

Curriculum Guide – Course Descriptions

Art

7000 Introduction to Art ***Grade 9*** **.50 credit**

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 ***Grade 9-12*** **.50 credit**

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 ***Grade 9-12*** **.50 credit**

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 ***Grade 9-12*** **.50 credit**

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 ***Grade 10-12*** **.50 credit**

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 ***Grade 10-12*** **.50 credit**

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.

7005 Mixed Media ***Grade 10-12*** **.50 credit**

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 ***Grade 10-12*** **.50 credit**

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 ***Grade 10-12*** **.50 credit**

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 ***Grade 10-12*** **.50 credit**

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 ***Grade 10-12*** **.50 credit**

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 ***Grade 10-12*** **.50 credit**

(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 ***Grade 11-12*** **.50 credit**

(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.

Music

5600 Concert Band ***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 ***Grade 9-12*** **No credit**

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 County Band 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 ***Grade 9-12*** **.50 credit**

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 ***Grade 9-12*** **No credit**

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 ***Grade 11-12*** **.50 credit**

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 ***Grade 11-12*** **.50 credit**

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.

5700 Music Theory 1 ***Grade 10-12*** **.50 credit**

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

The purpose of this course is to explore the basic elements of Music Theory and how music is composed. Students will learn how 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 ***Grade 10-12*** **.50 credit**

(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 ***Grade 9-12*** **.50 credit**

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. In addition, 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 ***Grade 9-12*** **.50credit**

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 ***Grade 9-12*** **.50credit**

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.

5715 American Musical Theatre 1 ***Grade 10-12*** **.50 credit**

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 will study 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 ***Grade 10-12*** **.50 credit**

(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 from landmark 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 ***Grade 10-12*** **.50 credit**

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.

Voice 2 ***Grade 10-12*** **.50 credit**

This semester course was created to expand upon student understanding of vocal health and technique. Goals of the course are as follows: expand upon student vocal technique, quality of overall performance, and artistry of individual voices; and to focus class attention on perfecting a vocal performance. Students will expand their repertoire of performance pieces and knowledge of vocalist.

5721 Guitar ***Grade 10-12*** **.50 credit**

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.

Keyboard/Piano ***Grade 10-12*** **.50 credit**

This semester course was created to encourage nontraditional instrumental students to pursue music study. In this class we will learn technique, theory, performance, and improve sight reading skills. A variety of musical genres will be used during this course. The pace of the course will vary by student, based on ability and prerequisite knowledge. Students may be required to practice on their own, take written quizzes/tests, and perform both alone and as a class.

Business, Finance and Information Technology Pathway

This pathway is designed to prepare students in the world of business, finance and information services.

Pathway Focus Areas

***Accounting and Finance (F) *Business Management and Marketing (BM) *Information Technology (IT)**

Are you interested in…	Can you…	Do you enjoy…
A business environment	Organize your time efficiently	Following directions
Advertising	Pay attention to details	Learning new software programs
Computers and technology	Show initiative	Making budgets
Different work sites	Solve problems	Meeting with groups
Insurance	Work easily with others	Organizing a project
Office management	Work Independently	Planning an event
Presentations to groups	Work on a team	Preparing Financial reports
Sales	Work with statistics	Processing numbers and figures
Record keeping	Use computers and other technology	Selling products and services
Telecommunications		Working with technology

If you answered "yes" to most of these questions, you might consider a future in one of the same occupations listed below based on their level of post-secondary training.

Sample Careers

Entry (OJT)	Technical/Skilled (1-3 yrs)	Professional (4 +yrs)
Accounts payable Office Manager (BM)	Bank Collection Officer (F)	Bank President (BM, F)
Administrative Assistant (BM)	Claims Adjuster (F)	Certified Public Accountant (F)
Bank Teller (BM)	Computer Programmer (IT)	Chief Executive Officer (BM)
Book Keeper (F)	Computer Salesperson (BM)	E-Commerce Analyst (IT)
Cashier (F)	Desktop Publisher (IT)	Economist (F)
Computer Operator (IT)	Medical Secretary (BM)	Financial Planner (F)
Customer Service Representative (BM)	Production Support Analyst (IT)	Hospital Administrator (BM)
File Clerk (BM)	Real Estate Agent (BM)	Human Resources Manager (BM)
Payroll Clerk (F)	Restaurant Manager (BM)	Marketing Manager (BM)
Reservation/Travel Agent BM)	Retail Buyer (BM)	Operations Analyst (IT)
Retail Sales Clerk (BM)	Sales Representative (BM)	Systems Analyst (IT)
School Secretary (BM	Software Engineer (IT)	Tax Examiner (F)
Telemarketer (BM)	Tax Preparer (F)	
Title Searcher (F)		

Check out Occupational Outlook Handbook – www.bls.gov/OCO/ or check your Choices profile

Holland Codes for Business	Conventional	Enterprising

Business, Finance & Information Technology: Accounting & Finance Course Progression

CIP: 52.0302	9th Grade	10th Grade	11th Grade	12th Grade
English	English 9 or	English 10	English 11 or College Prep English	Fantasy Fiction Technical Comm – Biography
	Honors English 1	English Honors 2	English Honors 3	English Comp (ENG111) & Biography or AP English
Mathematics	Career Algebra 1 or	Career Algebra 2 or	Career Algebra 3 or	Unified Algebra & Trig or Business Math
	Academic Algebra 1 or	Academic Alg or Academic Geometry	Academic Alg or Academic Geometry	Academic Trig / Pre-Calc or College Ready Algebra or Bus. Math
	Geometry Honors	Honors Algebra 2	Trig / Pre-Calc Honors Statistics or SAT Math	College Ready Algebra or Calculus or AP Calculus
Science	Intro to Biology & Earth / Space	Biology or	Chemistry (CHM100) or Physics (Honors)	Chemistry (CHM100) or Physics (Honors) or Science Electives
	Biology 9	Chemistry (CHM100) or Physics (Honors)	AP Chemistry or AP Environmental	AP Chemistry or AP Environmental
Social Studies	United States History or	World History or	American Gov't and Economics or	American Gov't and Economics
	US History 1 or	US History 2 or	World History or	American Gov't and Economics
	19th Century History Honors	20th Century History Honors	AP US History	AP European History
Required General Electives	Computer Applications (.5) Health 9 (.5) / Physical Education (.5) Art-Music-Pathway Electives (1)	Computer Applications (.5) Physical Education (.5) Art-Music-Pathway Electives (1)	Personal / Business Finance (.5) Physical Education (1) Art-Music-Pathway Electives (1)	Physical Education (.5) Art-Music-Pathway Electives (1)

Pathway Credits	1-3	1-3	2-3	2-3
Core Pathway Courses	*(4210)* **Intro. to Business (1)**	*(4342)* **Accounting 1 (1)**	*(4482)* **CIS (1)**	*(4345)* **Financial Acc (1)**
	Elective	*Elective*	*(4343)* **Accounting 2 (1)**	*(4700)* **Business Law 1 (.5)** *(4701)* **Business Law 2 (.5)**
	Elective	*Elective*	*Elective*	*(4381)* **Business Leadership Man. (1)**

Business, Finance & Information Technology: Office Assistant Course Progression

CIP: 52.0401	9th Grade	10th Grade	11th Grade	12th Grade
English	English 9 or	English 10	English 11 or College Prep English	Fantasy Fiction Technical Comm – Biography
	Honors English 1	English Honors 2	English Honors 3	English Comp (ENG111) & Biography or AP English
Mathematics	Career Algebra 1 or	Career Algebra 2 or	Career Algebra 3 or	Unified Algebra & Trig or Business Math
	Academic Algebra 1 or	Academic Alg or Academic Geometry	Academic Alg or Academic Geometry	Academic Trig / Pre-Calc or College Ready Algebra or Bus. Math
	Geometry Honors	Honors Algebra 2	Trig / Pre-Calc Honors Statistics or SAT Math	College Ready Algebra or Calculus or AP Calculus
Science	Intro to Biology & Earth / Space	Biology or	Chemistry (CHM100) or Physics (Honors)	Chemistry (CHM100) or Physics (Honors) or Science Electives
	Biology 9	Chemistry (CHM100) or Physics (Honors)	AP Chemistry or AP Environmental	AP Chemistry or AP Environmental
Social Studies	United States History or	World History or	American Gov't and Economics or	American Gov't and Economics
	US History 1 or	US History 2 or	World History or	American Gov't and Economics
	19th Century History Honors	20th Century History Honors	AP US History	AP European History
Required General Electives	Computer Applications (.5) Health 9(.5) / Physical Education (.5) Art-Music-Pathway Electives (1)	Computer Applications (.5) Physical Education (.5) Art-Music-Pathway Electives (1)	Personal / Business Finance (.5) Physical Education (1) Art-Music-Pathway Electives (1)	Physical Education (.5) Art-Music-Pathway Electives (1)

Pathway Credits	1-3	1-3	1-3	1-3
Core Pathway Courses	*(4210)* **Intro. to Business (1)**	(4342) **Accounting (1)**	*(4482)* **CIS (1)**	*(4381)* **Business Leadership Man. (1)**
	Elective	*Elective*	**(4422) Marketing (1)**	*(4700)* **Business Law 1 (.5)** *(4701)* **Business Law 2 (.5)**
	Elective	*Elective*	*Elective*	**(4421) Entrepreneur (.5)**

Business, Finance & Information Technology: Marketing Course Progression

CIP: 52.1801	9th Grade	10th Grade	11th Grade	12th Grade
English	English 9 or	English 10	English 11 or College Prep English	Fantasy Fiction Technical Comm – Biography
	Honors English 1	English Honors 2	English Honors 3	English Comp (ENG111) or Biography or AP English
Mathematics	Career Algebra 1 or	Career Algebra 2 or	Career Algebra 3 or	Unified Algebra & Trig or Business Math
	Academic Algebra 1 or	Academic Alg or Academic Geometry	Academic Alg or Academic Geometry	Academic Trig / Pre-Calc or College Ready Algebra or Bus. Math
	Geometry Honors	Honors Algebra 2	Trig / Pre-Calc Honors Statistics or SAT Math	College Ready Algebra or Calculus or AP Calculus
Science	Intro to Biology & Earth / Space	Biology or	Chemistry (CHM100) or Physics (Honors)	Chemistry (CHM100) or Physics (Honors) or Science Electives
	Biology 9	Chemistry (CHM100) or Physics (Honors)	AP Chemistry or AP Environmental	AP Chemistry or AP Environmental
Social Studies	United States History or	World History or	American Gov't and Economics or	American Gov't and Economics
	US History 1 or	US History 2 or	World History or	American Gov't and Economics
	19th Century History Honors	20th Century History Honors	AP US History	AP European History
Required General Electives	Computer Applications (.5) Health 9 (.5)/ Physical Education (.5) Art-Music-Pathway Electives (1)	Computer Applications (.5) Physical Education (.5) Art-Music-Pathway Electives (1)	Personal / Business Finance (.5) Physical Education (1) Art-Music-Pathway Electives (1)	Physical Education (.5) Art-Music-Pathway Electives (1)

Pathway Credits	1-3	1-3	1-3	1-3
Core Pathway Courses	*(4210)* **Intro. to Business (1)**	(4342) **Accounting (1)**	**(4422) Marketing (1)**	*(MGT105)* **Principles of Management (1)**
	Elective	*Elective*	*(4700)* **Business Law 1 (.5)** *(4701)* **Business Law 2 (.5)**	**(4421) Entrepreneur (.5)** **(4420) S&E Market (.5)**
	Elective	*Elective*	*Elective*	*(4482)* **CIS (1)**

Curriculum Guide – Course Descriptions

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 Financial math for Business Applications ***Grade 11-12*** **1.0 credit**

Topics to include: buying a car, buying a home vs. renting, budgeting, banking services (saving & checking accounts), establishing credit, employment payroll, income taxes, insurance, & investing via the stock market. Use of some linear equations, and interpretation of collected data using graphs, charts and Excel Spreadsheets as well. The primary focus is business math principles used in the "real world".

4202 Business Finance ***Grade 11-12*** **.50 credit**
(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.

4212 Principles of Management (MGT105) ***Grade 11-12*** **1.0 credit**
Dual 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 ***Grade 9-12*** **1.0 credit**

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.

4342 Accounting 1 ***Grade 10-12*** **1.0 credit**

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 ***Grade 11-12*** **1.0 credit**

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 ***Grade 12*** **1.0 credit**
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.

4381 Business Leadership and Management Year ***Grade 11-12*** **1.0 credit**
4382 Business Leadership and Management Semester 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 ***Grade 11-12*** **1.0 credit**

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.

4421 Entrepreneurship *Grade 12* **.50 credit**

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 *Grade 12* **.50 credit**

Prerequisite: Marketing

Explore the intriguing world of sports and entertainment from the perspective of marketing. This course will take you on a step-by-step 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 *Grade 9* **.50 credit**

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 must also complete a resume, a letter of application, other job-related materials, and digital citizenship topics.

4700 Business Law 1 *Grade 11-12* **.50 credit**

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 *Grade 11-12* **.50 credit**

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.**

4484 **Computer information and Society (CIS)** ***Grade 11-12*** **1.00 credit**
Dual Enrollment option available

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 literacy skills 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.

Engineering and Industrial Technology

This pathway is designed to cultivate students' interests, awareness and applications to careers related to technologies necessary to design, develop, install and maintain physical systems

Pathway Focus Areas

- *Automotive and Transportation (TDL)
- *Building Trade Maintenance (BT)
- *Computer Aided Design (CAD)
- *Computer and Information Networking (ET)
- *Construction Trades (CO)
- *Electronics and Computer Engineering (ET)
- *Manufacturing Technologies (M)

Are you interested in…	Can you…	Do you enjoy…
Buildings and construction Computer technology Design and architecture Engineering Fitness and sports How things work Math and Science classes Precision work Production management Tools, equipment and materials Woodworking	Apply science and math to real world Organize reports and people Read and understand directions See a task through to completion Solve problems of a complex nature Understand directives and read maps Use a computer	Building with your hands Design/working with project, models, prototypes Operating tools and equipment Paying close attention to details Working with your hands Working in a lab setting Working on a team Travel

If you answered "yes" to most of these questions, you might consider a future in one of the same occupations listed below based on their level of post-secondary training.

Sample Careers

Apprenticeships and Entry Level (OJT)	Technical/Skilled (1-3 yrs)	Professional (4 +yrs)
Brick Mason (CO) Carpenter (CO) Diesel Mechanic (TDL) Electrician (CO) HVAC (CO) Machinist (CO) Plumber (CO) Carpet Installer (CO) Drywall Worker (CO) Freight Handler (TDL) Machine Operator (M) Roofer (CO) Warehouse Worker (TDL)	Air Traffic Controller (TDL) Auto Mechanic & Repair (TDL) Bus & Truck Driver (TDL) CAD/CAM Technician (M,ET) Civil Engineering Technician (ET) Diesel Mechanic (TDL) Electric Technician (M) Grader and Dozer Operator (CO) Laser Technician (M, ET) Metals Engineering Technician (M) Motorcycle Mechanic (TDL) Robotics Technician (ET) Taxi Driver (TDL)	Aeronautical Engineer (ET, TDL) Aerospace Engineer (ET,TDL) Airline Pilot (ET, TDL) Architect (ET, CO) Astronaut (ET) Chemical Engineer (ET) Civil Engineer (ET,CO) Computer Network Engineer (ET) Industrial Engineer (ET, M) Mechanical Engineer (ET,M) NASA Scientist (ET) Navigator (TDL) Nuclear Engineer (ET) Petroleum Engineer (ET) Transportation Engineer (ET,TDL)

Check out Occupational Outlook Handbook – www.bls.gov/OCO/ or check your Choices profile

Holland Codes for Eng. & Ind. Tech.	Realistic	Conventional

Engineering & Industrial Tech.: Automotive Pathway Course Progression

CIP: 47.0604	9th Grade	10th Grade	11th Grade	12th Grade
English	English 9 or	English 10	English 11 or College Prep English	Fantasy Fiction Technical Comm – Biography
	Honors English 1	English Honors 2	English Honors 3	English Comp (ENG111) or Biography or AP English
Mathematics	Career Algebra 1 or	Career Algebra 2 or	Career Algebra 3 or	Unified Algebra & Trig or Business Math
	Academic Algebra 1 or	Academic Alg or Academic Geometry	Academic Alg or Academic Geometry	Academic Trig / Pre-Calc or College Ready Algebra or Bus. Math
	Geometry Honors	Honors Algebra 2	Trig / Pre-Calc Honors Statistics or SAT Math	College Ready Algebra or Calculus or AP Calculus
Science	Intro to Biology & Earth / Space	Biology or	Chemistry (CHM100) or Physics (Honors)	Chemistry (CHM100) or Physics (Honors) or Science Electives
	Biology 9	Chemistry (CHM100) or Physics (Honors)	AP Chemistry or AP Environmental	AP Chemistry or AP Environmental
Social Studies	United States History or	World History or	American Gov't and Economics or	American Gov't and Economics
	US History 1 or	US History 2 or	World History or	American Gov't and Economics
	19th Century History Honors	20th Century History Honors	AP US History	AP European History
Required General Electives	Computer Applications (.5) Health 9 (.5)/ Physical Education (.5) Art-Music-Pathway Electives (1)	Computer Applications (.5) Physical Education (.5) Art-Music-Pathway Electives (1)	Personal / Business Finance (.5) Physical Education (1) Art-Music-Pathway Electives (1)	Physical Education (.5) Art-Music-Pathway Electives (1)

Pathway Credits	1-3	1-3	2-3	3
Core Pathway Courses	**Industrial Technologies (1) w/Automotive Exploration**	*(9825)* **Introduction to Automotive Tech (.5)**	*(9800)* **Automotive Technology 1**	*(9810)* **Automotive Technology 2**
	Elective		*(6015)* **Principles of Electronics (.5)**	
	Elective	*Electives*		

Engineering & Industrial Tech.: Building Trade Maintenance Pathway Course Progression

CIP: 46.0401	9th Grade	10th Grade	11th Grade	12th Grade
English	English 9 or	English 10	English 11 or College Prep English	Fantasy Fiction Technical Comm – Biography
	Honors English 1	English Honors 2	English Honors 3	English Comp (ENG111) or Biography or AP English
Mathematics	Career Algebra 1 or	Career Algebra 2 or	Career Algebra 3 or	Unified Algebra & Trig or Business Math
	Academic Algebra 1 or	Academic Alg or Academic Geometry	Academic Alg or Academic Geometry	Academic Trig / Pre-Calc or College Ready Algebra or Bus. Math
	Geometry Honors	Honors Algebra 2	Trig / Pre-Calc Honors Statistics or SAT Math	College Ready Algebra or Calculus or AP Calculus
Science	Intro to Biology & Earth / Space	Biology or	Chemistry (CHM100) or Physics (Honors)	Chemistry (CHM100) or Physics (Honors) or Science Electives
	Biology 9	Chemistry (CHM100) or Physics (Honors)	AP Chemistry or AP Environmental	AP Chemistry or AP Environmental
Social Studies	United States History or	World History or	American Gov't and Economics or	American Gov't and Economics
	US History 1 or	US History 2 or	World History or	American Gov't and Economics
	19th Century History Honors	20th Century History Honors	AP US History	AP European History
Required General Electives	Computer Applications (.5) Health 9 (.5)/ Physical Education (.5) Art-Music-Pathway Electives (1)	Computer Applications (.5) Physical Education (.5) Art-Music-Pathway Electives (1)	Personal / Business Finance (.5) Physical Education (1) Art-Music-Pathway Electives (1)	Physical Education (.5) Art-Music-Pathway Electives (1)

Pathway Credits	1-3	1-3	2-3	2-3
Core Pathway Courses	**Industrial Technologies (1) w/ Building Main. Explor.**	*(9782)* **Introduction to Building Maintenance (.5)**	*(9780)* **Building Maintenance 1**	*(9781)* **Building Maintenance 2**
	Elective	*Elective*		
	Elective	*Elective*		

Engineering & Industrial Tech.: Computer Systems Networking Pathway Course Progression

CIP: 11.0901	9th Grade	10th Grade	11th Grade	12th Grade
English	English 9 or	English 10	English 11 or College Prep English	Fantasy Fiction Technical Comm – Biography
	Honors English 1	English Honors 2	English Honors 3	English Comp (ENG111) or Biography or AP English
Mathematics	Career Algebra 1 or	Career Algebra 2 or	Career Algebra 3 or	Unified Algebra & Trig or Business Math
	Academic Algebra 1 or	Academic Alg or Academic Geometry	Academic Alg or Academic Geometry	Academic Trig / Pre-Calc or College Ready Algebra or Bus. Math
	Geometry Honors	Honors Algebra 2	Trig / Pre-Calc Honors Statistics or SAT Math	College Ready Algebra or Calculus or AP Calculus
Science	Intro to Biology & Earth / Space	Biology or	Chemistry (CHM100) or Physics (Honors)	Chemistry (CHM100) or Physics (Honors) or Science Electives
	Biology 9	Chemistry (CHM100) or Physics (Honors)	AP Chemistry or AP Environmental	AP Chemistry or AP Environmental
Social Studies	United States History or	World History or	American Gov't and Economics or	American Gov't and Economics
	US History 1 or	US History 2 or	World History or	American Gov't and Economics
	19th Century History Honors	20th Century History Honors	AP US History	AP European History
Required General Electives	Computer Applications (.5) Health 9 (.5)/ Physical Education (.5) Art-Music-Pathway Electives (1)	Computer Applications (.5) Physical Education (.5) Art-Music-Pathway Electives (1)	Personal / Business Finance (.5) Physical Education (1) Art-Music-Pathway Electives (1)	Physical Education (.5) Art-Music-Pathway Electives (1)

Pathway Credits	1-3	1-3	2-3	2-3
Core Pathway Courses	**Industrial Technologies (1) w/Comp. Network Explor.**	*(9301)* **Intro to Networking (*EET124*) (.5)**	*(9310)* **Networking 1 (2)**	*(9311)* **Networking 2 (EET145) (2)**
	Elective (1)			
	Elective (1)	*(6015)* **Principles of Electronics (.5)**		

Engineering & Industrial Tech.: Construction Trades Pathway Course Progression

CIP: 46.9999	9th Grade	10th Grade	11th Grade	12th Grade
English	English 9 or	English 10	English 11 or College Prep English	Fantasy Fiction Technical Comm – Biography
	Honors English 1	English Honors 2	English Honors 3	English Comp (ENG111) or Biography or AP English
Mathematics	Career Algebra 1 or	Career Algebra 2 or	Career Algebra 3 or	Unified Algebra & Trig or Business Math
	Academic Algebra 1 or	Academic Alg or Academic Geometry	Academic Alg or Academic Geometry	Academic Trig / Pre-Calc or College Ready Algebra or Bus. Math
	Geometry Honors	Honors Algebra 2	Trig / Pre-Calc Honors Statistics or SAT Math	College Ready Algebra or Calculus or AP Calculus
Science	Intro to Biology & Earth / Space	Biology or	Chemistry (CHM100) or Physics (Honors)	Chemistry (CHM100) or Physics (Honors) or Science Electives
	Biology 9	Chemistry (CHM100) or Physics (Honors)	AP Chemistry or AP Environmental	AP Chemistry or AP Environmental
Social Studies	United States History or	World History or	American Gov't and Economics or	American Gov't and Economics
	US History 1 or	US History 2 or	World History or	American Gov't and Economics
	19th Century History Honors	20th Century History Honors	AP US History	AP European History
Required General Electives	Computer Applications (.5) Health 9 (.5)/ Physical Education (.5) Art-Music-Pathway Electives (1)	Computer Applications (.5) Physical Education (.5) Art-Music-Pathway Electives (1)	Personal / Business Finance (.5) Physical Education (1) Art-Music-Pathway Electives (1)	Physical Education (.5) Art-Music-Pathway Electives (1)

Pathway Credits	1-3	1-3	2-3	3
Core Pathway Courses	**Industrial Technologies (1) w/Constr. Exploration**	*(9425)* **Intro to Const. (.5)**	*(9400)* **Construction Technology I**	*(9410)* **Construction Technology 2**
	Elective (1)	*Elective (1)*		
	Elective (1)	*Elective (1)*		

Engineering & Industrial Tech.: Manufacturing Engineering Pathway Course Progression

CIP: 48.9999	9th Grade	10th Grade	11th Grade	12th Grade
English	English 9 or	English 10	English 11 or College Prep English	Fantasy Fiction Technical Comm – Biography
	Honors English 1	English Honors 2	English Honors 3	English Comp (ENG111) or Biography or AP English
Mathematics	Career Algebra 1 or	Career Algebra 2 or	Career Algebra 3 or	Unified Algebra & Trig or Business Math
	Academic Algebra 1 or	Academic Alg or Academic Geometry	Academic Alg or Academic Geometry	Academic Trig / Pre-Calc or College Ready Algebra or Bus. Math
	Geometry Honors	Honors Algebra 2	Trig / Pre-Calc Honors Statistics or SAT Math	College Ready Algebra or Calculus or AP Calculus
Science	Intro to Biology & Earth / Space	Biology or	Chemistry (CHM100) or Physics (Honors)	Chemistry (CHM100) or Physics (Honors) or Science Electives
	Biology 9	Chemistry (CHM100) or Physics (Honors)	AP Chemistry or AP Environmental	AP Chemistry or AP Environmental
Social Studies	United States History or	World History or	American Gov't and Economics or	American Gov't and Economics
	US History 1 or	US History 2 or	World History or	American Gov't and Economics
	19th Century History Honors	20th Century History Honors	AP US History	AP European History
Required General Electives	Computer Applications (.5) Health 9 (.5)/ Physical Education (.5) Art-Music-Pathway Electives (1)	Computer Applications (.5) Physical Education (.5) Art-Music-Pathway Electives (1)	Personal / Business Finance (.5) Physical Education (1) Art-Music-Pathway Electives (1)	Physical Education (.5) Art-Music-Pathway Electives (1)

Pathway Credits	1-3	1-3	2-3	2-3
Core Pathway Courses	**Industrial Technologies (1) w/Manufacturing Explor.**	*(9700)* **Intro. to Manufacturing Eng. (.5)**	*(9710)* **Manufacturing / Engineering I**	*(9720)* **Manufacturing / Engineering 2**
	Elective (1)	*(6015)* **Principles of Electronics (.5)**		
	Elective (1)	*Elective (1)*		

Curriculum Guide – Course Descriptions

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.

9026 Introduction to Human Services ***Grade 9*** **.05 credit**

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.

8114 Health Occupations ***Grade 9*** **.50 credit**

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.

6550 Family and Consumer Science ***Grade 9-10*** **.50 credit**

This elective course is meant to help students develop a basic understanding of financial and resource management for independent living. They will improve their skills in a manner that will help to maintain a healthy lifestyle that balances work, family, and community responsibility. Such topics as food science & nutrition, child development, family functions, communication skills, and consumer rights and responsibilities will be incorporated into the course.

6021 Multimedia Design ***Grade 9-10*** **.50 credit**

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.

Pathway Rotation ***Grade 9*** **1.0 credit**

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.

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.

0048 Building Maintenance Exploration ***Grade 9*** **.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 Computer Systems & Networking Exploration ***Grade 9*** **.25 Credits**

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 ***Grade 9*** **.25 credit**

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.

0052 Manufacturing Engineering Exploration ***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.

Automotive Technology

0047 Automotive Technology Exploration ***Grade 9*** **.25 credit**

(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 ***Grade 10-12*** **.50 credit**

(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 ***Grade 11-12*** **2.0 credits**

(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 ***Grade 12*** **3.0 credits**

(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.

9830 Vehicle Maintenance and Service ***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.***This course is offered when teacher schedule allows.***

Building Property Maintenance

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

(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 ***Grade 10*** **.50 credit**

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 ***Grade 11-12*** **2.0 credits**

(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 ***Grade 12*** **3.0 credits**

(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 ***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.

This course is offered when teacher schedule allows*

Communications & Digital Media

9140 Intro to Communications & Digital Media ***Grade 10*** **.50 credit**

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 ***Grade 11-12*** **2.0 Credits**

(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

9146 Communications & Digital Media 2 ***Grade 12*** **2.0 Credits**

(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, community-based 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 Graphic Design for the Web ***Grade 11-12*** **.50 Credits**

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. ***This course is offered when teacher schedule allows****

♦♦4438 BWM150 **Web Page Development** ***Grade 11-12*** **.50 Credits 3 College Credits**

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. **This course runs concurrently and is part of Level 2.**

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.

0050 Computer Systems & Networking Exploration ***Grade 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.

Intro to Networking (*Fall semester*) ***Grade 10-11*** **.50 credit**

♦♦9301 Introduction to Networking PCT *(Spring only)* **3 College Credits**

(EET124) ***(Spring)***

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 **during the spring semester**. 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. This Course is weighted 1.1

9310 Computer Systems & Networking 1 ***Grade 11-12*** **2.0 credits**

Preference given to 11th grade

This course will introduce students to PC operating systems, hardware, and trouble shooting. Topics covered include computer construction, help desk and support operations. At the end of this course students may take the Comp TIA A+Exams.

♦♦9311 Computer Systems & Networking 2 ***Grade 12*** **3.0 credits**

(EET145) 4 College Credits

Prerequisite: Networking 1, This course is weighted 1.1

This course will introduce networking topologies, connector termination techniques, various operating systems, as well as current and emerging technologies. Students will continue to 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. At the end of the course students may take 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 3 credits for the EET124 course through Pennsylvania College of Technology.

6017 Principles of Computer Programming ***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. ***This course is offered when teacher schedule allows***

6015 Principles of Electronics ***Grade 11-12*** **.50 credit**

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. ***This course is offered when teacher schedule allows.***

Construction Technology

0051 **Construction Exploration** ***Grade 9*** **.25 credit**

(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** ***Grade 10-11*** **.50 credit**
(BCT103) **Construction Hand and Power Tools** 1 college credit

Preference given to 10th grade. This course is weighted 1.1

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. 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 BCT103 course through Pennsylvania College of Technology. This course runs concurrently and is part of Intro during Semester 2.**

9420 **Construction Tools** ***Grade 11-12*** **.50 credit**

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. ***This course is offered when teacher schedule allows***

9400 **Construction Technology 1** ***Grade 11-12*** **2.0 credits**

(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** ***Grade 12*** **3.0 credits**

(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.

Manufacturing Engineering

0052 Manufacturing Engineering Exploration ***Grade 9*** **.25 credit**

(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 ***Grade 10-11*** **.50 credit**

(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 ***Grade 11-12*** **2.0 credits**

(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 ***Grade 12*** **3.0 credits**

(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.

9730 Advanced Automation & Welding ***Grade 11-12*** **.50 credit**

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. ***This course is offered when teacher schedule allows***

♦♦ 9705 (PPT115) **The Plastics Industry** ***Grade 11-12*** **.50 credit 2.0 college 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.** **This course runs concurrently and is part of Level 2.**

Human Services (HS) Pathway

This pathway is designed to cultivate students' interests, skills and experiences for employment in careers related to family and human needs.

Pathway Focus Areas

***Child/Personal Care (CPC)**
***Education and Counseling (E)**
***Culinary Arts, Hospitality and Tourism (HT)**
***Law, Public Safety and Government (LPG)**

Are you interested in…	Can you…	Do you enjoy…
Aging adults	Apply science and math to the real world	Communicate services
Child development	Assume leadership	Counseling and advising people
Counseling	Be conscientious and dependable	Handling customer complaints
Family and social services	Be creative	Helping and protecting others
Food preparation	Communicate well	Interviewing people
Owning your own business	Organize well	Searching for answers to human problems
Teaching	Plan and direct programs	Selling products or services
Working with people	Plan budgets	Serving others' needs
	Use interpersonal skills	Working with people
	Work with a team	

If you answered "yes" to most of these questions, you might consider a future in one of the same occupations listed below based on their level of post-secondary training.

Sample Careers

Entry (OJT)	Technical/Skilled (1-3 yrs)	Professional (4 +yrs)
Aerobics Instructor (HT)	Armed Services Career (LPG)	Athletic Agent (HT)
Armed Services Career (LPG)	Barber (CPC)	City Manager (LPG)
Bailiff (LPG)	Chauffer (HT)	College Professor (E)
Building Trade Maintenance (HT)	Cosmetologist (CPC)	Criminologist (LPG)
Child Care (CPC)	Crime Lab Technician (LPG)	Executive Chef (HT)
Dry Cleaning Operator (CPC)	Fashion Designer (CPC)	Family Planner (HT)
Home Health Aide (CPC)	Flight Attendant (HT)	FBI Agent (LPG)
Library Assistant (E)	Fire Fighter (LPG)	Food Services Manager (HT)
Postal Services Worker (LPG)	Manicurist (CPC)	Funeral Director (CPC)
Security Guard (LPG)	Massage Therapist (CPC)	Guidance Counselor (E)
Travel Agent (HT)	Meat Cutter (HT)	Hotel/Motel Management (HT)
Utility Worker (LPG)	Mortician (CPC)	Lawyer (LPG)
Waitress (HT)	Personal Trainer (CPC)	Marriage and Family Therapist (CPC)
	Teacher's Aid (E)	Paralegal (LPG)
	Truck Driver (CPC)	Park Ranger (LPG)
		Parole Officer (LPG)
		Psychologist (CPC)
		Teacher (E)
		Workforce Director (LPG)

Check out Occupational Outlook Handbook – www.bls.gov/OCO/ or check your Choices profile

Holland Codes for Human Services	Social	Enterprising

Human Services: Child Care Pathway Course Progression

CIP: 19.0708	9th Grade	10th Grade	11th Grade	12th Grade
English	English 9 or	English 10	English 11 or College Prep English	Fantasy Fiction Technical Comm – Biography
	Honors English 1	English Honors 2	English Honors 3	English Comp (ENG111) or Biography or AP English
Mathematics	Career Algebra 1 or	Career Algebra 2 or	Career Algebra 3 or	Unified Algebra & Trig or Business Math
	Academic Algebra 1 or	Academic Alg or Academic Geometry	Academic Alg or Academic Geometry	Academic Trig / Pre-Calc or College Ready Algebra or Bus. Math
	Geometry Honors	Honors Algebra 2	Trig / Pre-Calc Honors Statistics or SAT Math	College Ready Algebra or Calculus or AP Calculus
Science	Intro to Biology & Earth / Space	Biology or	Chemistry (CHM100) or Physics (Honors)	Chemistry (CHM100) or Physics (Honors) or Science Electives
	Biology 9	Chemistry (CHM100) or Physics (Honors)	AP Chemistry or AP Environmental	AP Chemistry or AP Environmental
Social Studies	United States History or	World History or	American Gov't and Economics or	American Gov't and Economics
	US History 1 or	US History 2 or	World History or	American Gov't and Economics
	19th Century History Honors	20th Century History Honors	AP US History	AP European History
Required General Electives	Computer Applications (.5) Health 9 (.5)/ Physical Education (.5) Art-Music-Pathway Electives (1)	Computer Applications (.5) Physical Education (.5) Art-Music-Pathway Electives (1)	Personal / Business Finance (.5) Physical Education (1) Art-Music-Pathway Electives (1)	Physical Education (.5) Art-Music-Pathway Electives (1)

Pathway Credits	1-3	1-3	3	3
Core Pathway Courses	*(0045/9026)* **Intro. to Human Services (.5)**	*(9025)* **ABC's of Child Care (.5)**	*(9000)* **Child Care Services 1**	*(9010)* **Child Care Services 2**
	(6550) Family & Consumer Science (.5)	*(9620)* Introduction to Baking and Pastries (.5)		
	Elective	*Elective*		

Human Services: Culinary Arts Pathway Course Progression

CIP: 12.0508	9th Grade	10th Grade	11th Grade	12th Grade
English	English 9 or	English 10	English 11 or College Prep English	Fantasy Fiction Technical Comm – Biography
	Honors English 1	English Honors 2	English Honors 3	English Comp (ENG111) or Biography or AP English
Mathematics	Career Algebra 1 or	Career Algebra 2 or	Career Algebra 3 or	Unified Algebra & Trig or Business Math
	Academic Algebra 1 or	Academic Alg or Academic Geometry	Academic Alg or Academic Geometry	Academic Trig / Pre-Calc or College Ready Algebra or Bus. Math
	Geometry Honors	Honors Algebra 2	Trig / Pre-Calc Honors Statistics or SAT Math	College Ready Algebra or Calculus or AP Calculus
Science	Intro to Biology & Earth / Space	Biology or	Chemistry (CHM100) or Physics (Honors)	Chemistry (CHM100) or Physics (Honors) or Science Electives
	Biology 9	Chemistry (CHM100) or Physics (Honors)	AP Chemistry or AP Environmental	AP Chemistry or AP Environmental
Social Studies	United States History or	World History or	American Gov't and Economics or	American Gov't and Economics
	US History 1 or	US History 2 or	World History or	American Gov't and Economics
	19th Century History Honors	20th Century History Honors	AP US History	AP European History
Required General Electives	Computer Applications (.5) Health 9 (.5)/ Physical Education (.5) Art-Music-Pathway Electives (1)	Computer Applications (.5) Physical Education (.5) Art-Music-Pathway Electives (1)	Personal / Business Finance (.5) Physical Education (1) Art-Music-Pathway Electives (1)	Physical Education (.5) Art-Music-Pathway Electives (1)

Pathway Credits	1-3	1-3	3	3
Core Pathway Courses	*(6550)* Family & Consumer Sciences (.5)	*(6511)* Intro to Food Prep (.5)	*(9600)* **CTE Culinary Arts 1** **(3.00 Credits)**	*(9610)* **CTE Culinary Arts 2** **(3.00 Credits)**
	(9620) Introduction to Baking and Pastries (.5)	(*6552*) Advanced Food Prep and Cooking (.5)		
	Elective	*(9630)* Advanced Baking and Pastry (.5)		

Curriculum Guide – Course Descriptions

Career and Technical Education Programs

Child Care

9025 ABC's of Child Care ***Grade 10-12*** **.50 credit**

(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 ***Grade 11-12*** **3.0 credits**

(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 ***Grade 12*** **3.0 credits**

(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.

Culinary Arts

9600 CTE Culinary Arts 1 ***Grade 11-12*** **3.0 credits**

(Preference given to 11th grade)

The CTE Culinary Arts class gives students the skills and knowledge they need to start a career in the restaurant industry, prepare for enrollment in Culinary school, or to become an amazing chef at home. You will have units that cover all of the major areas of cooking, including: baking, meat and seafood cookery, soup preparation, dessert making, entrée production, knife skills, sanitation, food purchasing, and many more. Experience is also gained in dining room service skills like waiting on tables at catering events. This class offers a fast-paced environment that reflects real-world restaurant experiences. If you love food and creating your own unique dishes or if you have always wanted to see what it was like to be a chef. . .then this is the class for you.

9610 CTE Culinary Arts 2 ***Grade 12*** **3.0 credits**

(Prerequisite: CTE Culinary Arts 1)

This class is for students that have already completed CTE Culinary Arts 1. At the second level, you will take on greater responsibilities in the planning of events, researching recipes, and preparation of meals. This class will reinforce the skills and knowledge you learned at the introductory level, but it will also show you a more detailed look into working with food, give you the opportunity to learn new recipes, and introduce you to new units that were not part of the first level class. If you are considering attending a Culinary school after graduation or if you have plans to ever work in foodservice, then you should definitely enroll in CTE Culinary Arts 2.

9620 Introduction to Baking and Pastries ***Grade 9-10*** **.50 credit**

This elective is for anyone that loves to bake or is interested in pursuing a career in the Baking and Pastry Arts or Culinary Arts. The course will introduce you to all the basics of the bakeshop. The curriculum will cover such units as Cookies, Quickbreads, Custards, Puff Pastry and Phyllo Dough, Bakeshop Ingredient and Equipment Identification, and Sanitation. You will make and bake a huge variety of desserts in order to get the skills, experiences, and abilities necessary to create your own dishes whenever you want more.

9630 Advanced Baking and Pastries ***Grade 10-11*** **.50 credit**

(Prerequisite: Introduction to Baking and Pastries)

This elective follows in the footsteps of Introduction to Baking and Pastries. If you enjoyed that class, then you will be happy to take this one. We are going to go beyond the basic skills that you learned in that course and continue to make new and exciting desserts. You will work with specialty desserts like Pies, Tarts, and Crepes. There is a unit on cake decorating and we will make numerous cakes ranging from the basic to advanced. There is potential for small group or independent work than in the introductory class. As always, you will be able to taste and evaluate everything that you make.

6551 Introduction to Food Prep and Cooking ***Grade 10-11*** **.50 credit**

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 food units will begin with cold preparations like salsa, guacamole, salads, and dressings and transition to cooking methods used in the kitchen today; boiling (pasta and potato cookery, etc.), simmering (sauce preparation, rice cookery, etc.), and roasting (meat, poultry, and vegetable cookery, casseroles, baked goods, etc.). 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 ***Grade 10-11*** **.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.

Electives

0610 Career Readiness ***Grade 10-11*** **.50 credit**

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 those 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 10*** **.50 credit**

This elective is for anyone that loves to bake or is interested in pursuing a career in the Baking and Pastry Arts or Culinary Arts. The course will introduce you to all the basics of the bakeshop. The curriculum will cover such units as Cookies, Quickbreads, Custards, Puff Pastry and Phyllo Dough, Bakeshop Ingredient and Equipment Identification, and Sanitation. You will make and bake a huge variety of desserts in order to get the skills, experiences, and abilities necessary to create your own dishes whenever you want.

9630 Advanced Baking and Pastries ***Grade 10-11*** **.50 credit**

(Prerequisite: Introduction to Baking and Pastries)

This elective follows in the footsteps of Introduction to Baking and Pastries. If you enjoyed that class, then you will be happy to take this one. We are going to go beyond the basic skills that you learned in that course and continue to make new and exciting desserts. You will work with specialty desserts like Pies, Tarts, and Crepes. There is a unit on cake decorating and we will make numerous cakes ranging from the basic to advanced. There is potential for small group or independent work than in the introductory class. As always, you will be able to taste and evaluate everything that you make.

6551 Introduction to Food Prep and Cooking ***Grade 10-11*** **.50 credit**

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 food units will begin with cold preparations like salsa, guacamole, salads, and dressings and transition to cooking methods used in the kitchen today; boiling (pasta and potato cookery, etc.), simmering (sauce preparation, rice cookery, etc.), and roasting (meat, poultry, and vegetable cookery, casseroles, baked goods, etc.). 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 ***Grade 10-11*** **.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.

9930 Co-operative Education Experience ***Grade 12*** **up to 4.0 credits**

*****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.

Health and Science Technologies Pathway

This pathway is designed to cultivate students' interests, skills and experiences for employment in careers related to science, agriculture, and health technologies.

Pathway Focus Areas

***Agriculture, Food and Natural Resources (AFN)**
***Science, Technology and Math (STM)**
***Health Sciences and Technologies (HS)**
*** Wellness (HS)**

Are you interested in…	Can you…	Do you enjoy…
Conservation Environment and conservation Food production Health care environment Information systems Medical research Pharmacy Physical therapy Radiology Science and medicine Sports/fitness	Apply a scientific theory to real life problems Collect and analyze data from experiments Pay attention to detail Use a computer and technology Work in a lab setting or medical facility Work outdoors around animals and plants Work with people in need Work with science and math theories	Developing conclusion from a database Diagnosing and caring for sick animals Making a contribution to society Medical lab research Solving problems Working on a team Working on cutting-edge scientific research Working outdoors with wildlife Working with numbers

If you answered "yes" to most of these questions, you might consider a future in one of the same occupations listed below based on their level of post-secondary training.

Sample Careers

Entry (OJT)

Health Science Careers
Dialysis Technician (HS)
EEG Technician (HS)
Home Health Aide (HS)
Hospital Worker (HS)
Optician (STM)
Patient Care Technician (HS)
Physical Therapy Aide (HS)

Science and Technology Careers
Animal Caretaker (AFN)
Breeder (AFN)
Data Entry (STM)
Extension Services Worker (AFN)
Farm Manager (AFN)
Food Conservation Worker (AFN)
Hazardous Waste Technician (STM)
Zoo Caretaker (AFN)

Technical/Skilled (1-3 yrs)

Health Science Careers
Certified Nursing Assistant (HS)
Dental Hygienist (HS)
Dental Lab Technician (HS, STM)
Emergency Medical Technician (STM)
Practical Nurse (HS)
Personal Trainer (STM)
Pharmacy Assistant (HS)
Radiological Technician (HS)
Respiratory Therapist (HS)
Sports Instructor (HS)

Science and Technology Careers
Fish and Game Worker (AFN)
Forest Conservationist (AFN)
Licensed Nano-technician (STM)
Sound Engineer (STM)

Professional (4 + yrs)

Health Science Careers
Athletic Trainer (HS)
Chiropractor (HS)
Dietician (HS)
Geneticist (STM)
Pharmacists (HS)
Physician (HS)
Physician Assistant (HS)
Registered Nurse (HS)

Science and Technology Careers
Chemist (STM)
Geologist (AFN)
Marine Biologist (AFN)
Soil Conservationist (AFN)
Veterinarian (AFN)
Zoologist (STM)

Check out Occupational Outlook Handbook – www.bls.gov/OCO/ or check your Choices profile

Holland Codes for Health & Science	Social	Enterprising

Health & Science: Health Systems Pathway Course Progression

	9th Grade	10th Grade	11th Grade	12th Grade
English	English 9 or	English 10	English 11 or College Prep English	Fantasy Fiction Technical Comm – Biography
	Honors English 1	English Honors 2	English Honors 3	English Comp (ENG111) or Biography or AP English
Mathematics	Career Algebra 1 or	Career Algebra 2 or	Career Algebra 3 or	Unified Algebra & Trig or Business Math
	Academic Algebra 1 or	Academic Alg or Academic Geometry	Academic Alg or Academic Geometry	Academic Trig / Pre-Calc or College Ready Algebra or Bus. Math
	Geometry Honors	Honors Algebra 2	Trig / Pre-Calc Honors Statistics or SAT Math	College Ready Algebra or Calculus or AP Calculus
Science	Intro to Biology & Earth / Space	Biology or	Chemistry (CHM100) or Physics (Honors)	Chemistry (CHM100) or Physics (Honors) or Science Electives
	Biology 9	Chemistry (CHM100) or Physics (Honors)	AP Chemistry or AP Environmental	AP Chemistry or AP Environmental
Social Studies	United States History or	World History or	American Gov't and Economics or	American Gov't and Economics
	US History 1 or	US History 2 or	World History or	American Gov't and Economics
	19th Century History Honors	20th Century History Honors	AP US History	AP European History
Required General Electives	Computer Applications (.5) Health 9 (.5)/ Physical Education (.5) Art-Music-Pathway Electives (1)	Computer Applications (.5) Physical Education (.5) Art-Music-Pathway Electives (1)	Personal / Business Finance (.5) Physical Education (1) Art-Music-Pathway Electives (1)	Physical Education (.5) Art-Music-Pathway Electives (1)

Pathway Credits	**1-3**	**1-3**	**2-3**	**2-3**
Core Pathway Courses	*(0046/8114)* **Health Occupations (.5)**	*(8115)* **Health Elective: Safety Concepts & First Aid (.5)**	*(3500)* **Fundamentals of Chemistry (1.5)**	*(3555)* **Anatomy and Physiology (1.5)**
	Elective (.5)	*Elective*	*(8117)* **Med.Term Survey MTR100 (.5)**	*(8118)* **Med. Term MTR104 (1)**
	Electives	*Elective*	*3330* **Genetics & Microbiology**	*3420* **Organic Chemistry**

Core Academic Courses

English (4 Credits)

- AP English (12)
- Biography
- Creative Writing
- English 9
- English 9 Honors
- English Honors 1
- English Honors 2
- English Honors 3
- English 10
- English 11
- English 11 College Prep
- Fantasy Fiction
- Technical Communications
- World Literature

Mathematics (4 Credits)

- Academic Algebra 1
- Academic Algebra 2
- Academic Geometry
- Academic Trig/Pre-Calculus / Honors Trig/Pre- Calculus
- AP Calculus
- Business Math
- Calculus
- Career Algebra 1
- Career Algebra 2
- Career Algebra 3
- College Readiness Algebra
- Geometry Honors
- Honors Algebra 1
- Honors Algebra 2
- SAT Math
- Statistics
- Technical Algebra and Trigonometry
- Unified Algebra and Trig

Science (3 or 4 Credits)

- AP Chemistry
- AP Environmental Science
- Analytical Chemistry
- Anatomy and Physiology
- Astronomy
- Biology 9
- Biology (Required 10-11)
- Chemistry
- Earth and Space Science
- Environmental Science
- Fundamentals of Chemistry (CHM100-PCNow)

- Genetics and Microbiology
- Honors Physics
- Introduction to Biology
- Organic Chemistry
- Physics

Social Studies (3 or 4 Credits)

- 19th Century History Honors
- 20th Century History Honors
- AP European History
- AP US History
- American Government*
- Crime and Law
- Economics*
- United States History
- US History 1*
- US History 2
- World History*

***Required Social Studies Courses:** US History, World History, American Government and Civics.*

Courses NOT NCAA Approved

- Financial Algebra
- Career Algebra 1, 2, and 3
- SAT Mathematics

English

Students are required to earn a minimum of four (4) English credits for graduation, pass the English 9 course, and take the Keystone Literature Exam in order to graduate. 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 ***Grade 9*** **1.0 credit**

This course emphasizes a variety of literature, including Shakespeare's *Romeo and Juliet*, Homer's *The Odyssey*, and Harper Lee's *To Kill a Mockingbird,* as well as a number of novels, short stories, and poems. Research and documentation methods are crucial components, in addition to the writing process. Word studies are conducted, as well as taking words in context from literature. Literary concepts will be emphasized.

0220 English 10 ***Grade 10*** **1.0 credit**

Students will read selections of American literature from all genres encompassing early American history to modern times. Writing assignments and projects complement each unit. Emphasis will be placed 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. This course will prepare students to take the Keystone Literature Exam in May of the sophomore year.

0323 English 11 ***Grade 11*** **1.0 credit**

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 ***Grade 11*** **1.0 credit**

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 *Grade 12* **.50 credit**

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.

0555 World Literature *Grade 12* **.50 credit**

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 *Grade 12* **.50 credit**

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.

0530 Technical Communication *Grade 12* **.50 credit**

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**

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 ***Grade 9*** **1.0 credit**

Recommended prerequisite: recommendation of 8th grade ELA teacher or permission of instructor
This course requires summer reading and assignments.

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 and 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.

0230 English Honors 2 ***Grade 10*** **1.0 credit**

Recommended prerequisite: 90% or higher in Honors 1 and proficient or advanced score on the Keystone Literature Exam
Students not meeting these criteria must meet with the instructor to discuss course expectations prior to scheduling.
This course requires summer reading and assignments.

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.

0330 English Honors 3 ***Grade 11*** **1.0 credit**

Recommended prerequisite: 90% or higher in Honors 2
Students not meeting this criteria must meet with the instructor to discuss course expectations prior to scheduling.
This course requires summer reading and assignments.

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 the following year.

0450 Advanced Placement English 12 *Grade 12* **1.0 credit**

This course is weighted 1.1, Recommended prerequisite: 86% or higher in Honors 3 or recommendation of instructor Students not meeting this criteria must meet with the instructor to discuss course expectations prior to scheduling. This course requires summer reading and assignments.

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.

♦♦ 0424 (ENL111) English Composition 1 *Grade 12* **.50 credit 3.0 college credits**

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.**

The Following Elective Courses Will NOT Count for English Credit

0501 Journalism *Grade 9-12* **1.0 credit**

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 *Grade 10-12* **1.0 credit**

(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 working hard, 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, and select topics and generate written copy for your assigned pages. You will also participate in business activities, such as marketing, selling, handling money and maintaining accurate records. This is an elective credit not an English credit.

Mathematics

Upon completion of 8th grade, all students will need to choose a math pathway for high school.

Career or Academic Pathway-Mathematics

(Workforce, technical or 2 year associates degree pathway)

With teacher recommendation

2120 Career Algebra 1 ***Grade 9*** **1.0 credit**

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.

2148 Career Algebra 2 ***Grade 10*** **1.0 credit**

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 ***Grade 11*** **1.0 credit**

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 ***Grade 12*** **1.0 credit**

(Prerequisite: Career Algebra 3 or Geometry)

This course is a continuation of topics covered in Career Algebra 3/Algebra 2/Geometry. Functions and polynomials are continued with the introduction of trigonometric functions. Transformations of parent functions are extended from Career Algebra 3/Algebra 2/Geometry. Circular functions are introduced through the rectangular coordinate system. Use of a graphing calculator is essential throughout the course.

2178 Financial math for Business Applications ***Grade 12*** **1.0 credit**

Topics to include: buying a car, buying a home vs. renting, budgeting, banking services (saving & checking accounts), establishing credit, employment payroll, income taxes, insurance, & investing via the stock market. Use of some linear equations, and interpretation of collected data using graphs, charts and Excel Spreadsheets as well. The primary focus is

Academic Pathway-Mathematics

(2 year associates or 4 year college degree pathway)

2122 Academic Algebra 1 ***Grade 9*** **1.0 credit**

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.

2142 Academic Algebra 2 ***Grade 10 or 11*** **1.0 credit**

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 or 11*** **1.0 credit**

Grade 10 Prerequisite: Algebra 1 with a recommended minimum grade of 80%
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 ***Grade 12*** **1.0 credit**

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.

2146 College Readiness Algebra ***Grade 12*** **1.0 credit**

Prerequisite: Academic Algebra 2

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 Financial Math for Business Applications ***Grade 11 or 12*** **1.0 credit**

Topics to include: buying a car, buying a home vs. renting, budgeting, banking services (saving & checking accounts), establishing credit, employment payroll, income taxes, insurance, & investing via the stock market. Use of some linear equations, and interpretation of collected data using graphs, charts and Excel Spreadsheets as well. The primary focus is business math principles used in the "real world".

Honors Pathway-Mathematics

(4 year college degree pathway)

2133 Geometry Honors ***Grade 9*** **1.0 credit**

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 ***Grade 10*** **1.0 credit**

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 ***Grade 11*** **1.0 credit**

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 ***Grade 12*** **1.0 credit**

Prerequisite Academic Algebra 2

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

2162 Calculus ***Grade 12*** **1.0 credit**

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 ***Grade 12*** **1.0 credit**

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 credit by 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 ***Grade 11-12*** **1.0 credit**

(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 ***Grade 12*** **1.0 credit**

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 ***Grade 11 Honors - Grade 12 Academic*** **.50 credit**

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.*

♦♦ 2147
MTH 123 **Technical Algebra and Trigonometry I** *Grade 12* **0.5 credit**
3.00 college credits

(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.**

♦♦ 2139 **0.5 credit**
MTH 125 **Trigonometry II** *Grade 12* **3.00 college**

(Recommended prerequisite: Course 2152--Academic 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** *Grade 10-12* **0.5 credit**

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.

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 ***Grade 9-12*** **1.0 credit**

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 ***Grade 10-12*** **1.0 credit**

(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 ***Grade 11-12*** **1.0 credit**

(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 will be 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) ***Grade 11-12*** **1.0 credit**

(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.

5440 Spanish 4 ***Grade 12*** **1.0 credit**

(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 ***Grade 12*** **1.0 credit**

(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 ***Grade 9-12*** **1.0 credit**

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 ***Grade 10-12*** **1.0 credit**

(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 ***Grade 11-12*** **1.0 credit**

(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.

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.

Physical Education/Health

8000 Physical Education ***Grade 9-12*** **.50 credit**

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 ***Grade 9 (Required)*** **.50 credit**

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.

0046/8114 Health Occupations ***Grade 9*** **.50 credit**

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) ***Grade 10-12*** **.50 credit**

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%.

♦♦8117 Medical Terminology Survey ***Grade 11-12*** **.50 credit**
(MTR 100) **2 College Credits**

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)

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 ***Grade 9*** **.50 credit**

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 ***Grade 9*** **.50 credit**

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 ***Grade 10*** **1.0 credit**

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 ***Grade 11-12*** **1.0 credit**

(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 of key concepts. The pace of the course is slower and the emphasis is less on mathematical problem solving than in the honors chemistry 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.

3531 Physics ***Grade 11-12*** **1.0 credit**

(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 ***Grade 9*** **.50 credit**

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 ***Grade 9*** **.50 credit**

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 ***Grade 10*** **1.0 credit**

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 (CHM100) **Fundamentals of Chemistry** *Grade 11-12* **1.00 credits 4.00 college credits**

(Prerequisite: Must have passed Algebra 1 with a 76% or higher. 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 *Grade 11-12* **1.0 credit**

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 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.

Honors Pathway-Science

(4 year college degree pathway)

3219 Biology 9 / REQUIRED Course *Grade 9* **1.0 credit**

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: 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

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 *Grade 10-11* **1.0 credit**

(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.

3471 Advanced Placement (A.P.) Chemistry ***Grade 11-12*** **2.0 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*** **1.0 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 ***Grade 12*** **.50 credit**

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 ***Grade 12*** **.50 credit**

(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.

♦♦3555 (BIO 103) **Human Anatomy and Physiology Survey** *Grade 11-12* **1.00 credits 3.00 college Credits**

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** *Grade 11-12* **.50 credit**

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** *Grade 11-12* **.50 credit**

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** *Grade 11-12* **1.0 credit**

(Prerequisite: Successful completion of Biology)

Genetics requires a more detailed examination of the subject and will emphasize problem solving, 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 in diseases. 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.

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 ***Grade 9*** **1.0 credit**

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 ***Grade 10*** **1.0 credit**

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 ***Grade 11-12*** **.50 credit**

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.

1421 Economics ***Grade 11-12*** **.50 credit**

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.

Academic Pathway-Social Studies

(2 year associates or 4 year college degree pathway)

1120 United States History 1 ***Grade 9*** **1.0 credit**

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 ***Grade 10*** **1.0 credit**

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 ***Grade 11*** **1.0 credit**

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 ***Grade 12*** **.50 credit**

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.

1421 Economics ***Grade 12*** **.50 credit**

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.

Honors Pathway-Social Studies

(4 year college degree pathway)

1130 19th Century History Honors ***Grade 9*** **1.0 credit**

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.

1230 20th Century History Honors ***Grade 10*** **1.0 credit**

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.

1450 Advanced Placement United States History ***Grade 11*** **1.0 credit**

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.

1350 European History – Advanced Placement ***Grade 12*** **1.0 credit**

Prerequisite: It is recommended 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.

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 ***Grade 11-12*** **.50 credit**

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 ***Grade 11-12*** **.50 credit**

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.