Pathways Guide

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

Core Academic Courses

English (4 Credits)
- AP English (12)
- Biography
- English 9
- English 9 Honors
- 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
- Algebra 1
- AP Calculus
- AP Statistics
- Calculus
- Career Algebra 2
- Career Algebra 3
- College Readiness Algebra
- Geometry Honors
- Honors Algebra 1
- Honors Algebra 2
- SAT Math
- 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 1
- Environmental Science 2
- Fundamentals of Chemistry (CHM100-PCNow)
- Genetics and Microbiology
- Honors Physics
- Organic Chemistry
- Physics
- Physics Honors

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*
- Intro to Psychology

Required Social Studies Courses

Courses NOT NCAA Approved
- Financial Algebra for Business Applications
- Career Algebra 2, and 3
- SAT Mathematics

Career and Technical Education (CTE) Courses

Course Title	Pa 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.*
Diversified Occupations	**32.0105**	
Building Property Maintenance	**46.0401**	
Business: Accounting Technology	**52.0302**	
Business: Entrepreneurship	**52.0701**	*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.*
Business: Sales, Marketing & Distribution	**52.1801**	
Child Care	**19.0708**	
Communications & Digital Media	**10.9999**	*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.*
Computer Systems Networking	**11.0901**	
Culinary / Inst. Food Workers	**12.0508**	
Health & Medical Assisting	**51.0899**	
Machining & Manufacturing Engineering	**48.0501**	*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.*
For more information regarding the CTE programs offered at the (JSASH), contact one of our school counselors.		

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
BWM150 Introduction to Web Page Development **CHM100** Fundamentals of Chemistry **EET124** Engineering, Technology & Society **EET145** Computer Systems & Networking 2 **ENL111** English Composition 1 **MTH123** Technical Algebra **MTR100** Medical Terminology Survey **MTR104** Basics of Medical Terminology **BIO103** Human Anatomy and Physiology **LCC- MGT105** Principles of Management **LCC-ACC** Financial Accounting **LCC-CIS** Computer Information Systems	*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.*

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

9th Grade Core Content Course Selection

Elective Courses
Select Two (2) Courses

Introduction to Art (.5)

Learn to Draw (.5)

Sculpture (.5)

Concert Band (.5)

Concert Choir (.5)

Family & Consumer Science (.5)

Music History (.5)

History of Rock and Roll 50s-70s (.5)

History of Rock and Roll 80s-2000s (.5)

Industrial Technologies Rotation (1)

Journalism (1.0)

Multimedia Design (.5)

German 1 (1)

Spanish 1 (1)

Career Pathway Course
Select One (1) Pathway Course

Arts and Communications
Multimedia Design, Into to Art, Commercial Art

Business, Finance, and IT
Introduction to Business

Engineering & Industrial Technology
Pathway Rotation

Health Science
Health Occupations

Human Services
Introduction to Human Services
Family & Consumer Science

* 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 Map

	Grade 9	Grade 10	Grade 11	Grade 12
Pathway Courses				
Pathway Courses Grades 9-12	Introduction to Art (.5)	Art & Design (.5)	Fiber Crafts (.5)	Sculpture (.5)
	Commercial Art (.5)	Pottery 1 (.5)	Pottery 2 (.5)	Pottery 3 (.5)
	Learn to Draw (.5)	Advanced Art (.5)	Learn to Paint (.5)	Mixed Media (.5)
			Stage & Set Design (.5)	Glass Crafts (.5)
Academic Courses				
English	English 9 or Honors 1	English 10 or Honors 2	English 11 or College Prep or Honors 3	Fantasy Fiction or ENG 111/Biography or AP English
Mathematics	Algebra, Academic Algebra 1 or Geometry Honors	Algebra 2, Academic Geometry or Honors Algebra 2	Trig/Pre-Calc Honors or Statistics or SAT Math	Unified Algebra & Trig or Financial Algebra for Business Application or Calculus
Science	Environmental Science 1 & Earth & Space or Biology 9	Biology or Chemistry	Physics	Chemistry or Environmental & Astronomy
Social Studies	US History or US 1	US 2 or World History	World or American Gov't & Elective	American Gov't & Elective Course
Required Courses	Comp. Applications (.5) Health 9 (.5) Physical Education (.5)	Physical Education (.5)	Personal Finance (.5) Physical Education (.5)	Physical Education (.5)
Electives	1 credit	2 credits	1 credit	2.5 credits

Scheduling Notes:

Advanced Placement Credits	Dual Enrollment Credits
AP Calculus AP Chemistry AP European History AP English AP Environmental Science AP Statistics AP US History	MATH123 ENGL111 CHEM100
Work-Based Learning Programs	
	Diversified Occupations (4.0)
Grade 11	**Grade 12**

Arts & Communications Pathway Map
Communications Technology CTE Program 10.9999

CIP 10.9999	Grade 9	Grade 10	Grade 11	Grade 12
	Exploratory Courses	**Introductory Courses**	**Career & Technical Education Courses**	
Technical Courses **Grades 11-12** 6.0 credits 720 hours	**Multimedia Design (.5)**	**Introduction to Communications & Digital Media (.5)**	**Communications & Digital Media 1 (3)**	**Communications & Digital Media 2 (3)**
	Learn to Draw (.5)	**Commercial Art (.5)**		
Academic Courses				
English	English 9 or Honors 1	English 10 or Honors 2	English 11 or College Prep or Honors 3	Fantasy Fiction or ENG 111/Biography or AP English
Mathematics	Algebra 1 or Academic Algebra 1 or Geometry Honors	Algebra 2 or Academic Geometry or Honors Algebra 2	Trig/Pre-Calc Honors or Statistics or SAT Math	Unified Algebra & Trig or Financial Algebra for Business Application or Calculus
Science	Environmental Science 1 & Earth & Space or Biology 9	Biology or Chemistry	Physics	Chemistry or Environmental & Astronomy
Social Studies	US History or US 1	US 2 or World History	World or American Gov't & Elective	American Gov't & Elective Course
Required Courses	Comp. Applications (.5) Health 9 (.5) Physical Education (.5)	Physical Education (.5)	Personal Finance (.5) Physical Education (.5)	Physical Education (.5)
Electives	1.5 credits	2.5 credits	**Required** Web Page Development (.5)	1.5 Credits
Articulation Agreement Credit Opportunities			**Advanced Placement Credits**	**Dual Enrollment Credits**
Pennsylvania Highlands Community College (9.0-11.0) Harrisburg Area Community College (9.0) Westmoreland County Community College (12.0) Luzerne County Community College (10.0) Montgomery County Community College (9.0)			AP Calculus AP Chemistry AP European History AP English AP Environmental Science AP Statistics AP US History	BWM 105 MATH123 ENGL111 CHEM100

Scheduling Notes:

			Work-Based Learning Programs	
				Cooperative Education (4.0)
			CTE Experience/Internship (4.0)	CTE Experience/Internship (4.0)
			CTE Industry Credentials & Certifications	
			Adobe Certified Professional	
			Grade 11	**Grade 12**

Arts & Communications:
Music Studies Pathway Map

	Grade 9	Grade 10	Grade 11	Grade 12
Pathway Courses				
Technical Courses **Grades 9-12**	**REQUIRED** **Choir/Band (.5/1)**	**REQUIRED** **Choir/Band (.5/1)**	**REQUIRED** **Choir/Band (.5/1)**	**REQUIRED** **Choir/Band (.5/1)**
	Music History (.5)	**American Musical Theatre 1 (.5)**	**Music Theory 1 (.5)**	**Song Writing (.5)**
		American Musical Theatre 2 (.5)	**Music Theory 2 (.5)**	
	History of Rock 1 (.5)	**History of Rock 2 (.5)**	**Voice 1 (.5)**	**Voice 2 (.5)**
		Keyboard 1 (.5)	**Keyboard 2 (.5) or Guitar (.5)**	
Academic Courses				
English	English 9 or Honors 1	English 10 or Honors 2	English 11 or College Prep or Honors 3	Fantasy Fiction or ENG 111/Biography or AP English
Mathematics	Algebra, Academic Algebra 1 or Geometry Honors	Algebra 2, Academic Geometry or Honors Algebra 2	Trig/Pre-Calc Honors or Statistics or SAT Math	Unified Algebra & Trig or Financial Algebra for Business Application or Calculus
Science	Environmental Science 1 & Earth & Space or Biology 9	Biology or Chemistry	Physics	Chemistry or Environmental & Astronomy
Social Studies	US History or US 1	US 2 or World History	World or American Gov't & Elective	American Gov't & Elective Course
Required Courses	Comp. Applications (.5) Health 9 (.5) Physical Education (.5)	Physical Education (.5)	Personal Finance (.5) Physical Education (.5)	Physical Education (.5)
Electives	+ 0.5 credits	**Recommended** Introduction to Business (1.0) + 0.5 credits	**Recommended** Stage Technology (.5)	**Recommended:** Business Law 1 (0.5) Accounting 1 (1.0)

Scheduling Notes: If taking Introduction to Business in Grade 10, student must drop one pathway elective, but not band/choir.

Advanced Placement Credits	Dual Enrollment Credits
AP Calculus AP Chemistry AP European History AP English AP Environmental Science AP Statistics AP US History	MATH123 ENGL111 CHEM100
Work-Based Learning Programs	
	Diversified Occupations (4.0)
Grade 11	**Grade 12**

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 Pathway Map:
Accounting Technology CTE Program 52.0302

CIP 52.0302	Grade 9	Grade 10	Grade 11	Grade 12
		Career & Technical Education Program Courses		
Technical Courses 9.0 credits 1080 hours	**Computer Applications (.5)**	**Introduction to Business (1.0)**	**Personal Finance (.5) **Business Communications (.5)**	**Financial Algebra for Business Applications (1.0)**
		Accounting 1 (1.0)	**Accounting 2 (1.0)**	**Financial Accounting (1.0)**
		Business Law 1 (.5) Business Law 2 (.5)	**Principles of Management (1.0)**	**Business Leadership (1.0)**
		Academic Courses		
English	English 9 or Honors 1	English 10 or Honors 2	English 11 or College Prep or Honors 3	Fantasy Fiction or ENG 111/Biography or AP English
Mathematics	Algebra 1 or Academic Algebra 1 or Geometry Honors	Algebra 2 or Academic Geometry or Honors Algebra 2	Trig/Pre-Calc Honors or Statistics or SAT Math	Unified Algebra & Trig or Financial Algebra for Business Application or Calculus
Science	Environmental Science 1 & Earth & Space or Biology 9	Biology or Chemistry	Physics	Chemistry or Environmental & Astronomy
Social Studies	US History or US 1	US 2 or World History	World or American Gov't & Elective	American Gov't & Elective Course
Required Courses	Comp. Applications (.5) Health 9 (.5) Physical Education (.5)	Physical Education (.5)	Personal Finance (.5) Physical Education (.5)	Physical Education (.5)
Electives	2 credits	.5 credits	.5 credits	1.5 credits

Articulation Agreement Credit Opportunities		Advanced Placement Credits	Dual Enrollment Credits
Butler County Community College 9.0 Community College of Beaver County 9.0 Delaware County Community College 10.0 Lackawanna College 9.0-12.0 Luzerne County Community College 9.0 Northampton County Area Community College 9.0 Pennsylvania Highlands Community College 12.0		AP Calculus AP Chemistry AP European History AP English AP Environmental Science AP Statistics AP US History	MGT 105 ACC105 MATH123 ENGL111 CHEM100

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Scheduling Notes:

Work-Based Learning Programs	
	Cooperative Education (4.0)
CTE Experience/Internship (4.0)	CTE Experience/Internship (4.0)
CTE Industry Credentials & Certifications	
OSHA 10-Hour General Safety	
Grade 11	**Grade 12**

Business, Finance & Information Technology Pathway Map:
Sales, Marketing & Distribution CTE Program 52.1801

CIP 52.1801	Grade 9	Grade 10	Grade 11	Grade 12
		Career & Technical Education Program Courses		
Technical Courses 9.0 credits 1080 hours	**Computer Applications (.5)**	**Introduction to Business (1.0)**	**Personal Finance (.5) ***Business Communications (.5)**	**Advanced Marketing (2.0)**
		Accounting 1 (1.0)	**Marketing (1.0)**	
		Business Law 1 (.5) Business Law 2 (.5)	**Principles of Management (1.0)**	**Business Leadership (1.0)**
		Academic Courses		
English	English 9 or Honors 1	English 10 or Honors 2	English 11 or College Prep or Honors 3	Fantasy Fiction or ENG 111/Biography or AP English
Mathematics	Algebra 1 or Academic Algebra 1 or Geometry Honors	Algebra 2 or Academic Geometry or Honors Algebra 2	Trig/Pre-Calc Honors or Statistics or SAT Math	Unified Algebra & Trig or Financial Algebra for Business Application or Calculus
Science	Environmental Science 1 & Earth & Space or Biology 9	Biology or Chemistry	Physics	Chemistry or Environmental & Astronomy
Social Studies	US History or US 1	US 2 or World History	World or American Gov't & Elective	American Gov't & Elective Course
Required Courses	Comp. Applications (.5) Health 9 (.5) Physical Education (.5)	Physical Education (.5)	Personal Finance (.5) Physical Education (.5)	Physical Education (.5)
Electives	2 credits	.5 credits	.5 credits	1.5 credits

Articulation Agreement Credit Opportunities		Advanced Placement Credits	Dual Enrollment Credits
Harcum College 9.0 Lackawanna College 9.0 Pennsylvania Highlands Community College 9.0 Westmoreland County Community College 9.0		AP Calculus AP Chemistry AP European History AP English 17 AP Environmental Science AP Statistics AP US History	MGT 105 MATH123 ENGL111 CHEM100

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Scheduling Notes:

Work-Based Learning Programs	
	Cooperative Education (4.0)
CTE Experience/Internship (4.0)	CTE Experience/Internship (4.0)
CTE Industry Credentials & Certifications	
OSHA 10-Hour General Safety	
Grade 11	**Grade 12**

Business, Finance & Information Technology Pathway Map:
Entrepreneurship CTE Program 52.0701

CIP 52.0701	Grade 9	Grade 10	Grade 11	Grade 12
		Career & Technical Education Program Courses		
Technical Courses 9.0 credits 1080 hours	**Computer Applications (.5)**	**Introduction to Business (1.0)**	**Personal Finance (.5) **Business Communications (.5)**	**Principles of Management (1.0)**
		Accounting 1 (1.0)	****Fundamentals of Entrepreneurship (1.0)**	****Creativity, Innovation, & Design (1.0)**
		Business Law 1 (.5) Business Law 2 (.5)	**Marketing (1.0)**	**Business Leadership (1.0)**
		Academic Courses		
English	English 9 or Honors 1	English 10 or Honors 2	English 11 or College Prep or Honors 3	Fantasy Fiction or ENG 111/Biography or AP English
Mathematics	Algebra 1 or Academic Algebra 1 or Geometry Honors	Algebra 2 or Academic Geometry or Honors Algebra 2	Trig/Pre-Calc Honors or Statistics or SAT Math	Unified Algebra & Trig or Financial Algebra for Business Application or Calculus
Science	Environmental Science 1 & Earth & Space or Biology 9	Biology or Chemistry	Physics	Chemistry or Environmental & Astronomy
Social Studies	US History or US 1	US 2 or World History	World or American Gov't & Elective	American Gov't & Elective Course
Required Courses	Comp. Applications (.5) Health 9 (.5) Physical Education (.5)	Physical Education (.5)	Personal Finance (.5) Physical Education (.5)	Physical Education (.5)
Electives	2 credits	.5 credits	.5 credits	1.5 credits

Articulation Agreement Credit Opportunities		**Advanced Placement Credits**	**Dual Enrollment Credits**
Pennsylvania Highlands Community College 12.0 Northampton County Area Community College 9.0 Delaware County Community College 10.0 Butler County Community College 9.0 Lackawanna College 9.0-12.0 Community College of Beaver County 9.0 Luzerne County Community College 9.0		AP Calculus AP Chemistry AP European History AP English AP Environmental Science AP Statistics AP US History	MGT 105 ACC105 MATH123 ENGL111 CHEM100

Work-Based Learning Programs

	Grade 11	Grade 12
		Cooperative Education (4.0)
	CTE Experience/Internship (4.0)	CTE Experience/Internship (4.0)

CTE Industry Credentials & Certifications

OSHA 10-Hour General Safety

Grade 11	Grade 12

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Jersey Shore Career & Technical Education

Scheduling Notes:

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)   ***Construction Trades (CO)**

*Building Trade Maintenance (BT)   ***Electronics and Computer Engineering (ET)**

*Computer Aided Design (CAD)   ***Manufacturing Technologies (M)**

*Computer and Information Networking (ET)

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

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

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

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

Engineering & Industrial Technology Pathway Map
Automotive Technology CTE Program 47.0604

CIP 47.0604	Grade 9	Grade 10	Grade 11	Grade 12
	Exploratory Courses	**Introductory Courses**	**Career & Technical Education Courses**	
Technical Courses **Grades 11-12** 6.0 credits 720 hours	**Automotive Technology Exploration (.25)**	**Introduction to Automotive Technology (.5)**	**Automotive Technology 1 (3)**	**Automotive Technology 2 (3)**
Academic Courses				
English	English 9 or Honors 1	English 10 or Honors 2	English 11 or College Prep or Honors 3	Fantasy Fiction or ENG 111/Biography or AP English
Mathematics	Algebra 1 or Academic Algebra 1 or Geometry Honors	Algebra 2 or Academic Geometry or Honors Algebra 2	Trig/Pre-Calc Honors or Statistics or SAT Math	Unified Algebra & Trig or Financial Algebra for Business Application or Calculus
Science	Environmental Science 1 & Earth & Space or Biology 9	Biology or Chemistry	Physics	Chemistry or Environmental & Astronomy
Social Studies	US History	World History	American Government & Social Studies Elective (0.5)	Social Studies Elective (1.0)
Required Courses	Comp. Applications (.5) Health 9 (.5) Physical Education (.5)	Physical Education (.5)	Personal Finance (.5) Physical Education (.5)	Physical Education (.5)
Elective Credits	2.25 credits	3 credits	1 credit	1.5 credits

Articulation Agreement Credit Opportunities		**Advanced Placement Credits**	**Dual Enrollment Credits**
Allegany College of Maryland (12.0) Community College of Allegheny County (PA) (9.0) Community College of Philadelphia (9.0) Delaware County Community College (PA) (10.0) Harrisburg Area Community College (9.0) Johnson College (11.0) Lancaster County Career & Technology Center (11.0) Luzerne County Community College (9.0) Northampton County Community College (9.0) Pennsylvania College of Technology (6.0) Rosedale Technical College @ Pittsburgh (9.50) University of Northwestern Ohio (6.0)		AP Calculus AP Chemistry AP European History AP English AP Environmental Science AP Statistics AP US History	MATH123 ENGL111 CHEM100

SkillsUSA

Scheduling Notes:

Work-Based Learning Programs	
	Cooperative Education (4.0)
CTE Experience/Internship (4.0)	CTE Experience/Internship (4.0)
CTE Industry Credentials & Certifications	
OSHA 10-Hour Automotive Safety	Snap-on 504 Multimeter
AC Delco Electrical State 1 & 2	PennDOT Certified Safety Inspector, Cat I
AC Delco Battery Starting & Charging Systems	PennDOT Certified Emissions Inspector
Grade 11	**Grade 12**

Engineering & Industrial Technology:
Building Property Maintenance CTE Program 46.0401

CIP 46.0401	Grade 9	Grade 10	Grade 11	Grade 12
	Exploratory Courses	**Introductory Courses**	**Career & Technical Education Courses**	
Technical Courses **Grades 11-12** 6.0 credits 720 hours	**Building Property Maintenance Exploration (.25)**	**Introduction to Building Property Maintenance Technology (.5)**	**Building Property Maintenance 1 (3)**	**Building Property Maintenance 2 (3)**
Academic Courses				
English	English 9 or Honors 1	English 10 or Honors 2	English 11 or College Prep or Honors 3	Fantasy Fiction or ENG 111/Biography or AP English
Mathematics	Algebra 1 or Academic Algebra 1 or Geometry Honors	Algebra 2 or Academic Geometry or Honors Algebra 2	Trig/Pre-Calc Honors or Statistics or SAT Math	Unified Algebra & Trig or Financial Algebra for Business Application or Calculus
Science	Environmental Science 1 & Earth & Space or Biology 9	Biology or Chemistry	Physics	Chemistry or Environmental & Astronomy
Social Studies	US History or US 1	US 2 or World History	World or American Gov't & Elective	American Gov't & Elective Course
Required Courses	Comp. Applications (.5) Health 9 (.5) Physical Education (.5)	Physical Education (.5)	Personal Finance (.5) Physical Education (.5)	Physical Education (.5)
Electives	2.5 credits	3.5 Credits	1 credit	1.5 credits

Dual-Enrollment, Advanced Placement, & Articulation Agreement Credit Opportunities		
Allegany College of Maryland (12.0) Community College of Allegheny County (PA) (9.0) Community College of Philadelphia (9.0) Delaware County Community College (PA) (10.0) Harrisburg Area Community College (9.0) Johnson College (11.0) Lancaster County Career & Technology Center (11.0) Luzerne County Community College (9.0) Northampton County Community College (9.0) Pennsylvania College of Technology (6.0) Rosedale Technical College @ Pittsburgh (9.50) University of Northwestern Ohio (6.0)	AP Calculus AP Chemistry AP European History AP English AP Environmental Science AP Statistics AP US History	MATH123 ENGL111 CHEM100

Scheduling Notes:

Work-Based Learning Programs	
	Cooperative Education (4.0)
CTE Experience/Internship (4.0)	CTE Experience/Internship (4.0)

CTE Industry Credentials & Certifications	
OSHA 10	
Grade 11	**Grade 12**

Engineering & Industrial Technology Pathway:
Computer Systems Networking CTE Program 11.0901

CIP 11.0901	Grade 9	Grade 10	Grade 11	Grade 12
	Exploratory Courses	**Introductory Courses**	**Career & Technical Education Courses**	
Technical Courses **Grades 11-12** 6.0 credits 720 hours	**Computer Systems Networking Exploration (.25)**	**Introduction to Computer Systems Networking (.5)** **Engineering, Technology & Society (.5)**	**Computer Systems Networking 1 (3)**	**Computer Systems Networking 2 (3)**
Academic Courses				
English	English 9 or Honors 1	English 10 or Honors 2	English 11 or College Prep or Honors 3	Fantasy Fiction or ENG 111/Biography or AP English
Mathematics	Algebra, Academic Algebra 1 or Geometry Honors	Algebra 2, Academic Geometry or Honors Algebra 2	Trig/Pre-Calc Honors or Statistics or SAT Math	Unified Algebra & Trig or Financial Algebra for Business Application or Calculus
Science	Environmental Science 1 & Earth & Space or Biology 9	Biology or Chemistry	Physics	Chemistry or Environmental & Astronomy
Social Studies	US History	World History	American Government Economics	
Required Courses	Comp. Applications (.5) Health 9 (.5) Physical Education (.5)	Physical Education (.5)	Personal Finance (.5) Physical Education (.5)	Physical Education (.5)
Electives	2.25 credits	2.5 credits	1 credit	2.5 credits

Articulation Agreement Credit Opportunities		Advanced Placement Credits	Dual Enrollment Credits
Bucks County Community College (12.0) Butler County Community College (10.0) Community College of Allegheny County (9.0) Community College of Beaver County (10.0-11.0) Community College of Philadelphia (11.0) Delaware County Community College (9.0) Harrisburg Area Community College (7.0-13.0) Johnson College (10.0) Luzerne County Community College (9.0) Northampton County Community College (10.0) Reading Area Community College (9.0) Thaddeus Stevens College of Technology (9.0) Westmoreland County Community College (9.0)		AP Calculus AP Chemistry AP European History AP English AP Environmental Science AP Statistics AP US History	EET124 EET145 MATH123 ENGL111 CHEM100

Scheduling Notes:

Work-Based Learning Programs	
	Cooperative Education (4.0)
CTE Experience/Internship (4.0)	CTE Experience/Internship (4.0)
CTE Industry Credentials & Certifications	
CompTIA A+ (Plus)	CompTIA Network+ (Plus)
Grade 11	**Grade 12**

Engineering & Industrial Technology Pathway:
Construction Trades CTE Program

	Grade 9	Grade 10	Grade 11	Grade 12
	Exploratory Courses	Introductory Courses	Career & Technical Education Courses	
Technical Courses **Grades 11-12** 6.0 credits 720 hours	**Construction Trades Exploration (.25)**	**Introduction to Construction Trades (.5)**	**Construction Trades 1 (3)**	**Construction Trades 2 (3)**
Academic Courses				
English	English 9 or Honors 1	English 10 or Honors 2	English 11 or College Prep or Honors 3	Fantasy Fiction or ENG 111/Biography or AP English
Mathematics	Algebra 1 or Academic Algebra 1 or Geometry Honors	Algebra 2 or Academic Geometry or Honors Algebra 2	Trig/Pre-Calc Honors or Statistics or SAT Math	Unified Algebra & Trig or Financial Algebra for Business Application or Calculus
Science	Environmental Science 1 & Earth & Space or Biology 9	Biology or Chemistry	Physics	Chemistry or Environmental & Astronomy
Social Studies	US History or US 1	US 2 or World History	World or American Gov't & Elective	American Gov't & Elective Course
Required Courses	Comp. Applications (.5) Health 9 (.5) Physical Education (.5)	Physical Education (.5)	Personal Finance (.5) Physical Education (.5)	Physical Education (.5)
Electives	2.5 credits	3.5 Credits	1 credit	1.5 credits
Dual-Enrollment, Advanced Placement, & Articulation Agreement Credit Opportunities				
	Allegany College of Maryland (12.0) Community College of Allegheny County (PA) (9.0) Community College of Philadelphia (9.0) Delaware County Community College (PA) (10.0) Harrisburg Area Community College (9.0) Johnson College (11.0) Lancaster County Career & Technology Center (11.0) Luzerne County Community College (9.0) Northampton County Community College (9.0) Pennsylvania College of Technology (6.0) Rosedale Technical College @ Pittsburgh (9.50) University of Northwestern Ohio (6.0)		AP Calculus AP Chemistry AP European History AP English AP Environmental Science AP Statistics AP US History	MATH123 ENGL111 CHEM100

Scheduling Notes:

Work-Based Learning Programs	
	Cooperative Education (4.0)
CTE Experience/Internship (4.0)	CTE Experience/Internship (4.0)
CTE Industry Credentials & Certifications	
OSHA 10	
Grade 11	**Grade 12**

Engineering & Industrial Technology:
Machining & Manufacturing Technology CTE Program 48.0501

CIP 48.0501	Grade 9	Grade 10	Grade 11	Grade 12
	Exploratory Courses	**Introductory Courses**	**Career & Technical Education Courses**	
Technical Courses **Grades 11-12** 6.0 credits 720 hours	**Machining Rotation (.25)**	**Intro to Machining & Manufacturing (.5)**	**Machining & Manufacturing 1 (3)**	**Machining & Manufacturing 2 (3)**
Academic Courses				
English	English 9 or Honors 1	English 10 or Honors 2	English 11 or College Prep or Honors 3	Fantasy Fiction or ENG 111/Biography or AP English
Mathematics	Algebra, Academic Algebra 1 or Geometry Honors	Algebra 2, Academic Geometry or Honors Algebra 2	Trig/Pre-Calc Honors or Statistics or SAT Math	Unified Algebra & Trig or Financial Algebra for Business Application or Calculus
Science	Environmental Science 1 & Earth & Space or Biology 9	Biology or Chemistry	Physics	Chemistry or Environmental & Astronomy
Social Studies	US History	World History	American Government & Social Studies Elective (0.5)	Social Studies Elective (1.0)
Required Courses	Comp. Applications (.5) Health 9 (.5) Physical Education (.5)	Physical Education (.5)	Personal Finance (.5) Physical Education (.5)	Physical Education (.5)
Electives	2.25 credits	3 credits	1 credit	1.5 credits
Articulation Agreement Credit Opportunities			**Advanced Placement Credits**	**Dual Enrollment Credits**
Community College of Allegheny County (10.0) Triangle Tech (6.0) Pennsylvania College of Technology (3.0)			AP Calculus AP Chemistry AP European History AP English AP Environmental Science AP Statistics AP US History	MATH123 ENGL111 CHEM100

Scheduling Notes:

		Work-Based Learning Programs	
			Cooperative Education (4.0)
		CTE Experience/Internship (4.0)	CTE Experience/Internship (4.0)
		CTE Industry Credentials & Certifications	
		OSHA 10-Hour Manufacturing	NIMS Machining Level I-II
		Grade 11	**Grade 12**

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…

Aging adults
Child development
Counseling
Family and social services
Food preparation
Owning your own business
Teaching
Working with people

Can you…

Apply science and math to the real world
Assume leadership
Be conscientious and dependable
Be creative
Communicate well
Organize well
Plan and direct programs
Plan budgets
Use interpersonal skills
Work with a team

Do you enjoy…

Communicate services
Counseling and advising people
Handling customer complaints
Helping and protecting others
Interviewing people
Searching for answers to human problems
Selling products or services
Serving others' needs
Working with people

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 Pathway Map:
Child Care CTE Program 19.0708

CIP 19.0708	Grade 9	Grade 10	Grade 11	Grade 12
	Exploratory Courses	Introductory Courses	**Career & Technical Education Courses**	
Technical Courses **Grades 11-12** 6.0 credits 720 hours	**Intro to Human Services (.5)**	**ABCs of Child Care (.5)**	**Child Care 1 (3)**	**Child Care 2 (3)**
	Family & Consumer Science (.5)	**Intro to Baking & Pastries (.5)**		
Academic Courses				
English	English 9 or Honors 1	English 10 or Honors 2	English 11 or College Prep or Honors 3	Fantasy Fiction or ENG 111/Biography or AP English
Mathematics	Algebra, Academic Algebra 1 or Geometry Honors	Algebra 2, Academic Geometry or Honors Algebra 2	Trig/Pre-Calc Honors or Statistics or SAT Math	Unified Algebra & Trig or Financial Algebra for Business Application or Calculus
Science	Environmental Science 1 & Earth & Space or Biology 9	Biology or Chemistry	Physics	Chemistry or Environmental & Astronomy
Social Studies	US History or US 1	US 2 or World History	World or American Gov't & Elective	American Gov't & Elective Course
Required Courses	Comp. Applications (.5) Health 9 (.5) Physical Education (.5)	Physical Education (.5)	Personal Finance (.5) Physical Education (.5)	Physical Education (.5)
Electives	1.5 credits	2.5 credits	Not Available	1.5 Credits

Articulation Agreement Credit Opportunities		Advanced Placement Credits	Dual Enrollment Credits
Community College of Philadelphia (10.0) Delaware County Community College (9.0) Harrisburg Area Community College (9.0) Luzerne County Community College (9.0) Pennsylvania Highlands Community College (11.0) Westmoreland County Community College (9.0)		AP Calculus AP Chemistry AP European History AP English AP Environmental Science AP Statistics AP US History	CHEM100 ENGL111 MATH123

Scheduling Notes:

Work-Based Learning Programs	
	Cooperative Education (4.0)
CTE Experience/Internship (4.0)	CTE Experience/Internship (4.0)

CTE Industry Credentials & Certifications	
Basic First Aid	OSHA Interview Skills
CPR & AED	ServSafe Food Handler
Penn State Getting Started with Center-Based Care	PA Mandated & Permissive Reporter
Grade 11	**Grade 12**

Human Services:
Culinary Arts CTE Program 12.0508

CIP 12.0508	Grade 9	Grade 10	Grade 11	Grade 12
	Exploratory Courses	Introductory Courses	**Career & Technical Education Courses**	
Technical Courses **Grades 11-12** 6.0 credits 720 hours	**Intro to Baking & Pastries (.5)**	**Advanced Baking & Pastries (.5)**	**Culinary Arts 1 (3)**	**Culinary Arts 2 (3)**
	Intro to Food Prep & Cooking (.5)	**Advanced Food Prep & Cooking (.5)**		
Academic Courses				
English	English 9 or Honors 1	English 10 or Honors 2	English 11 or College Prep or Honors 3	Fantasy Fiction or ENG 111/Biography or AP English
Mathematics	Algebra, Academic Algebra 1 or Geometry Honors	Algebra 2, Academic Geometry or Honors Algebra 2	Trig/Pre-Calc Honors or Statistics or SAT Math	Unified Algebra & Trig or Financial Algebra for Business Application or Calculus
Science	Environmental Science 1 & Earth & Space or Biology 9	Biology or Chemistry	Chemistry or Environmental & Astronomy	Physics
Social Studies	US History or US 1	US 2 or World History	World or American Gov't & Elective	American Gov't & Elective Course
Required Courses	Comp. Applications (.5) Health 9 (.5) Physical Education (.5)	Physical Education (.5)	Personal Finance (.5) Physical Education (.5)	Physical Education (.5)
Electives	1.5 credits	2.5 credits	0 available	1.5 credits

Articulation Agreement Credit Opportunities		**Advanced Placement Credits**	**Dual Enrollment Credits**
Community College of Philadelphia (10.0) Delaware County Community College (9.0) Harrisburg Area Community College (9.0) Luzerne County Community College (9.0) Pennsylvania Highlands Community College (11.0) Westmoreland County Community College (9.0)		AP Calculus AP Chemistry AP European History AP English AP Environmental Science AP Statistics AP US History	MATH123 ENGL111 CHEM100

Scheduling Notes:

Work-Based Learning Programs	
	Cooperative Education (4.0)
CTE Experience/Internship (4.0)	CTE Experience/Internship (4.0)
CTE Industry Credentials & Certifications	
OSHA 10-Hour General Safety	ServSafe Food Handler
Grade 11	**Grade 12**

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

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)
Health Science Careers	**Health Science Careers**	**Health Science Careers**
Dialysis Technician (HS)	Certified Nursing Assistant (HS)	Athletic Trainer (HS)
EEG Technician (HS)	Dental Hygienist (HS)	Chiropractor (HS)
Home Health Aide (HS)	Dental Lab Technician (HS, STM)	Dietician (HS)
Hospital Worker (HS)	Emergency Medical Technician (STM)	Geneticist (STM)
Optician (STM)	Practical Nurse (HS)	Pharmacists (HS)
Patient Care Technician (HS)	Personal Trainer (STM)	Physician (HS)
Physical Therapy Aide (HS)	Pharmacy Assistant (HS)	Physician Assistant (HS)
	Radiological Technician (HS)	Registered Nurse (HS)
Science and Technology Careers	Respiratory Therapist (HS)	
Animal Caretaker (AFN)	Sports Instructor (HS)	**Science and Technology Careers**
Breeder (AFN)		Chemist (STM)
Data Entry (STM)	**Science and Technology Careers**	Geologist (AFN)
Extension Services Worker (AFN)	Fish and Game Worker (AFN)	Marine Biologist (AFN)
Farm Manager (AFN)	Forest Conservationist (AFN)	Soil Conservationist (AFN)
Food Conservation Worker (AFN)	Licensed Nano-technician (STM)	Veterinarian (AFN)
Hazardous Waste Technician (STM)	Sound Engineer (STM)	Zoologist (STM)
Zoo Caretaker (AFN)		

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

Holland Codes for Health & Science	**Social**	**Enterprising**

Health & Science
Health & Medical Assisting CTE Program 51.0899

CIP 51.0899	Grade 9	Grade 10	Grade 11	Grade 12
	Exploratory Courses	Introductory Courses	**Career & Technical Education Courses**	
Technical Courses **Grades 11-12** 6.0 credits 720 hours	**Introduction to Health Occupations (.5)**	**Introduction to Health & Medical Assisting (.5)**	**Heath & Medical Assisting 1 (3)**	**Health & Medical Assisting 2 (3)**
Academic Courses				
English	English 9 or Honors 1	English 10 or Honors 2	English 11 or College Prep or Honors 3	Fantasy Fiction or ENG 111/Biography or AP English
Mathematics	Algebra, Academic Algebra 1 or Geometry Honors	Algebra 2, Academic Geometry or Honors Algebra 2	Trig/Pre-Calc Honors or **Statistics** or SAT Math	Unified Algebra & Trig or Financial Algebra for Business Application or Calculus
Science	Environmental Science 1 & Earth & Space or Biology 9	Biology or **Chemistry**	**Chemistry** or Environmental & Astronomy	Physics
Social Studies	US History or US 1	US 2 or World History	World or American Gov't & Elective	American Gov't & Elective Course
Required Courses	Comp. Applications (.5) Health 9 (.5) Physical Education (.5)	Physical Education (.5)	Personal Finance (.5) Physical Education (.5)	Physical Education (.5)
Electives	2 credits	3 credits	Not Available	1.5 credits
Articulation Agreement Credit Opportunities			**Advanced Placement Credits**	**Dual Enrollment Credits**
Greater Altoona Career & Technology Center (9.0) Pennsylvania Highlands Community College (9.0)			AP Calculus AP Chemistry AP European History AP English AP Environmental Science AP Statistics AP US History	MATH123 ENGL111 CHEM100

Scheduling Notes:

Work-Based Learning Programs		
		Cooperative Education (4.0)
	CTE Experience/Internship (4.0)	CTE Experience/Internship (4.0)
CTE Industry Credentials & Certifications		
	OSHA 10-Hour Healthcare	AMCA Patient Care Technician
	First Aid, CPR, & AED	NHA Patient Care Technician
	Grade 11	**Grade 12**

Health & Science:
Health Sciences Pathway Map

	Grade 9	Grade 10	Grade 11	Grade 12
Pathway Courses				
Technical Courses **Grades 9-12**	**Health Occupations (.5)**	**Safety & First Aid (.5)**	**Medical Terminology Survey (.5)**	**Medical Terminology (1)**
	Family & Consumer Science (.5)	**Intro to Health & Medical Assisting (.5)**	**Fundamentals of Chemistry (1)**	**Organic Chemistry (.5)**
			Genetics & Microbiology (1)	**Anatomy & Physiology (1)**
Academic Courses				
English	English 9 or Honors 1	English 10 or Honors 2	English 11 or College Prep or Honors 3	Fantasy Fiction or ENG 111/Biography or AP English
Mathematics	Algebra, Academic Algebra 1 or Geometry Honors	Algebra 2, Academic Geometry or Honors Algebra 2	Trig/Pre-Calc Honors or Statistics or SAT Math	Unified Algebra & Trig or Financial Algebra for Business Application or Calculus
Science	Environmental Science 1 & Earth & Space or Biology 9	Biology or Chemistry	Chemistry and/or Genetics & Microbiology	Organic Chemistry (.5) and Anatomy & Physiology
Social Studies	US History or US 1	US 2 or World History	World or American Gov't & Elective	American Gov't & Elective Course
Required Courses	Comp. Applications (.5) Health 9 (.5) Physical Education (.5)	Physical Education (.5)	Personal Finance (.5) Physical Education (.5)	Physical Education (.5)
Electives	+1.5 credits	+2.5 credits	**REQUIRED High School Nutrition (.5)** +1.0 credits	**REQUIRED Strength & Conditioning for Life Fitness (.5)** +2.5 credits

Scheduling Notes:	**Advanced Placement Credits**	**Dual Enrollment Credits**
	AP Calculus AP Chemistry AP European History AP English AP Environmental Science AP Statistics AP US History	MTR100 Medical Terminology Survey MTR104 Medical Terminology MATH123 ENGL111 CHEM100
	Work-Based Learning Programs	
	Diversified Occupations (4.0)	
	Grade 11	**Grade 12**