

Conneaut Area Senior High School
Linesville, Pennsylvania

YOUR PATHWAY PLANNER

Revised 02/2026

Use this guide to develop an academic plan and career path.



“College, Career and Life Readiness means that individuals possess the knowledge and skills necessary to succeed in life after high school and to thrive in their community.”

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THE COUNSELING DEPARTMENT

Dear Student and Parent:

The following information is supplied to assist with creating the best possible schedule for the next school year. Consideration needs to be given to choosing courses that satisfy graduation requirements, career aspirations, prerequisites and appropriate curriculum sequencing.

Extensive effort is made by your high school administrators and counselors to ensure you have chosen and receive the best possible schedule.

With approximately 650 students in grades 9-12, a general booklet such as this cannot address all of the individual situations and concerns. If you have any questions about your scheduling choices, please make an appointment with your counselor. Making good choices for your academic plan will make a positive impact in your future.

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The Conneaut Area Senior High school faculty and administration would like to take this opportunity to stress the importance of proper course selection for the school year. Your high school transcript will be with you for the rest of your life. Employers, colleges, apprenticeship programs, or technical training institutions usually request to see high school transcripts. They would like to see if you've prepared yourself for the future.

Sometimes choosing your courses is difficult. The best policy to follow when selecting courses is to take the ones that are challenging but within your capabilities. Also, follow your interests. Students usually find jobs in fields where they feel comfortable.

CONNEAUT AREA HIGH SCHOOL

PROCEDURES & REMINDERS

1. Students should carefully read this booklet and pay special attention to the graduation requirements, required courses and the course descriptions.
2. The English and Mathematics teachers will make course recommendations.
3. Students must schedule a minimum of EIGHT credits.
4. Students are to complete the course selection sheet, which will be seen by their parent/guardian before returning it to their guidance counselor.
5. Students will meet with their assigned counselor to review their schedules.
6. Students who successfully complete all required course work and earn enough credits will be promoted to the next grade level. Options for retaking required courses and making up credit are available and must be approved by the principal.
7. Students who failed a required course will be contacted by their counselor at the end of the school year. Opportunity will be given to either repeat the course through summer credit make-up or to reschedule the course.

GRADUATION REQUIREMENTS

English	4 credits
Math	4 credits (one must be Money Management)
Science	3 credits
Social Studies	3 credits
Physical Education	2 credits
Health	1 credit (.5 to be taken in 9 th and 11 th grade)
Electives	Students will select additional courses from among those approved for credit by the school district, including approved CTC courses.

Number of credits required for graduation: 26 credits

SR. HIGH REQUIRED COURSES

9TH GRADE REQUIRED COURSES	
COURSE	CREDIT
English	1
Math	1
Social Studies	1
Biology / Environmental	1
Computer Applications	1
Phys. Ed.	.5
Health 9	.5
Elective	1
Elective	1
TOTAL CREDITS	8 Minimum

10TH GRADE REQUIRED COURSES	
COURSE	CREDIT
English	1
Math	1
Social Studies	1
Science / Biology	1
Phys Ed.	1
Elective	1
Elective	1
Elective	1
TOTAL CREDITS	8 Minimum

11TH GRADE REQUIRED COURSES	
COURSE	CREDIT
English	1
Math / Money Management	1
Social Studies	1
Science	1
Phys. Ed.	.5
Health 11	.5
Elective	1
Elective	1
Elective	1
TOTAL CREDITS	8 MINIMUM

12TH GRADE REQUIRED COURSES	
COURSE	CREDIT
English	1
Math / Money Management	1
Phys. Ed.	1
Elective	1
Elective	1
Elective	1
Elective	1
Elective	1
TOTAL CREDITS	8 MINIMUM

SR. HIGH REQUIRED COURSES FOR TECH SCHOOL STUDENTS

9TH GRADE REQUIRED COURSES	
COURSE	CREDIT
English	1
Math	1
World Cultures	1
Biology	1
Computer Applications	1
Phys. Ed.	.5
Health 9	.5
Elective	1
Elective	1
TOTAL CREDITS	8 Minimum

10TH GRADE REQUIRED COURSES	
COURSE	CREDIT
English	1
Math	1
US History	1
Phys. Ed.	1
CTC	4
TOTAL CREDITS	8 Minimum

11TH GRADE REQUIRED COURSES	
COURSE	CREDIT
English	1
Math / Money Management	1
Social Studies	1
Science (choice)	1
CTC	4
TOTAL CREDITS	8 MINIMUM

12TH GRADE REQUIRED COURSES	
COURSE	CREDIT
English	1
Math / Money Management	1
Phys. Ed.	.5
Health	.5
Elective	1
CTC	4
TOTAL CREDITS	8 MINIMUM

Connecting Careers, Curriculum, and Character Education

What are Career Pathways?

Each pathway is a broad grouping of careers that share similar characteristics and whose employment requirements call for many common interests, strengths, and competencies. A Career Pathway focuses a student's elective course toward preparing for a specific goal area. Career Pathways provide opportunities for students to explore similarly grouped career options. They also serve as an organizing tool for schools to help focus curriculum and bring relevance into the classroom.

Why should I explore Career Pathways?

- To help focus on a career area that matches interests
- To help set goals and align classes necessary to achieve those goals
- To create career awareness
- To encourage planning for workforce or postsecondary education opportunities
- To provide knowledge that relates the high school experience to the world after graduation

How do I explore a Career Pathway?

- You will research various career fields in middle school
- You will take a Career Explorations course in tenth grade to help guide your decision-making process
- Your counselors, parents and teachers will assist you
- You will utilize various software tools to explore and research various careers



The 5 Pathways

ARTS AND COMMUNICATION (AC)

Careers in the Arts, Audio-Video Technology and Communications involve designing, producing, exhibiting, performing, writing and publishing multimedia content including visual and performing arts and design, journalism and entertainment services.

Career cluster areas:

- Audio, Video Technology, and Film
- Printing Technology and Graphic Communication Technology
- Visual Arts
- Performing Arts
- Journalism and Broadcasting
- Telecommunications

BUSINESS, FINANCE, AND INFORMATION TECHNOLOGY (BFIT)

Business management and administration careers encompass planning, organization, directing and evaluating business functions essential to efficient and productive business operations.

Career cluster areas:

- Marketing, Sales, and Service
- Finance
- Business Management
- Information Technology

ENGINEERING AND INDUSTRIAL TECHNOLOGY (EIT)

This career pathway is designed to cultivate students' interest, awareness and application to areas related to technologies necessary to design, develop, install or maintain physical systems.

Career cluster areas:

- Architecture and Construction
- Manufacturing
- Engineering and Engineering Technology
- Transportation, Distribution, and Logistics

HUMAN SERVICES (HS)

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

Career cluster areas:

- Counseling and Personal Care
- Education
- Law, Public Safety, and Government
- Hospitality and Tourism

SCIENCE AND HEALTH (SH)

This career pathway is designed to cultivate students' interest in the life, physical and behavioral sciences. In addition, the planning, managing and providing of therapeutic and diagnostic services, health information and biochemistry research development.

Career cluster areas:

- Health Science
- Agriculture, Food, and Natural Resources
- Science, Technology, and Math

Arts and Communications (AC) Pathway

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

Are you interested in...	Can you...	Do you enjoy...
• News reporting and writing • Interviewing and reviewing • Multi-media productions • Acting • Radio, TV, Film, Video • Performing in a band or chorus • Attending concerts • Drawing, painting • Artwork	• Sing • Play an instrument • Be creative • Act • Articulate clearly • Write and conduct interviews • Meet deadlines • Sell • Draw • Sculpt	• Writing • Making Videos • Working with film props • Seeking creative ideas • Working with sound effects • Performing in front of an audience • Working with computers

If you answered "yes" to many of these questions, you might consider a future in one of the sample occupations listed below.

Sample Careers

Entry	Technical/Skilled	Professional (4+ college)
• Model • Radio operator • Stagehand • Stunt performer • Announcer • Dancer • Film loader • Photographer • Floral designer • Florist • Sound technician • TV, video, and movies • Desktop publisher • Copy person • Newsroom worker	• Actor • Illustrator • Choreographer • Dancer • Disc jockey • Musician • Animator • Artist • Broadway technician • Fashion designer • Jeweler • Make-up artist • Recording Engineer • Video manager • Computer graphic artist • Web designer • Desktop publisher	• Art or music teacher • Cinematographer • Composer • Film editor • Multi-media artist • Music critic • Music director • News broadcaster • Producer and director • Editor • Curator • Advertising creator • Art director • Interior designer • Fashion designer • Industrial designer • Copywriter • News writer • Telecommunications • Writer

4-Year Planner for Arts and Communications (AC) Pathway

	Grade 9	Grade 10	Grade 11	Grade 12
English	General English 9 College Prep. English 9	General English 10 College Prep. English 10	General English 11 College Prep. English 11 AP English Language & Composition 11	General English 12 College Prep. English 12 Adv. Placement English Lit. & Composition 12
Science	Biology I	Environmental Science	Chemistry Forensic Science Applied Physics Conservation Science	Chemistry Forensic Science Applied Physics
Social Studies	World Cultures AP Human Geography	US History AP Human Geography	Government Adv. Placement US Government & Politics AP Human Geography	AP Psych
Math	Algebra I Algebra II Plane Geometry	Algebra II Plane Geometry Trigonometry	Applied Geometry Algebra II Plane Geometry Trigonometry Statistics Pre-Calculus	Technical Math Money Management Plane Geometry Trigonometry Statistics Pre-Calculus AP Calculus
Required Elective	Health Education 9		Health Education 11	
Physical Education	Physical Education 9	Physical Education 10	Physical Education 11	
Pathway Electives (Other electives are available...see Course Offerings for more choices)				
	Spanish I German I Art I Current Events Hist. of Amer. Music I Journalism Drama I Mythology Keyboarding I Concert Band Chorus AP CSA Computer Science Applications	Spanish I, II German I, II Art I, II Hist. of Amer. Music I, II Movie Study Public Speaking Journalism Drama I, II Mythology Creative Writing Current Events Video Production Photography Intro to Computer Prog. Keyboarding I, II Concert Band Chorus Modern Band AP Computer Sci Principles IOS Applications Devel. Web Site Design & Devel.	Theories of Leadership Spanish I, II, III German I, II, III Art I, II, III Hist. of Amer. Music I, II Culinary Arts I Movie Study Public Speaking Journalism Mythology Creative Writing World Geography Current Events Video Production Photography Intro to Computer Prog. Keyboarding I, II Concert Band Chorus AP Computer Sci Principles IOS Applications Devel. Web Site Design & Devel. Legal Studies	Theories of Leadership Spanish I, II, III, IV German I, II, III, IV Art, I, II, III, IV Hist. of Amer. Music I, II Culinary Arts I, II Baking & Pastry Arts Movie Study Public Speaking Journalism Drama I, II Mythology Creative Writing Current Events Video Production Photography Intro to Computer Prog. Keyboarding I, II Concert Band Chorus Modern Band AP Computer Sci Principles IOS Applications Devel. Web Site Design & Devel. Legal Studies

			Listening to History Exploring Citizenship	Listening to History Exploring Citizenship
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4-Year Planner for Arts and Communications (AC) Pathway

CCCTC Programs Aligned:	Commercial Art Cosmetology Culinary Arts Drafting and Design Welding
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Business, Finance, and Information Technology (BFIT) Pathway

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

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

If you answered “yes” to many of these questions, you might consider a future in one of the sample occupations listed below.

Sample Careers

Entry	Technical/Skilled	Professional (4+ college)
• Customer service • Representative • Shipping and receiving clerk • Telemarketer • Advertising sales agent • Bank teller • Cashier • Payroll clerk • Title searcher • Computer operator • Accounts payable manager • Administrative assistant • Data entry • Retail sales clerk • Secretary • Account executive	• Computer salesperson • Graph designer • Retail technician • Bank collection officer • Claims adjuster • Legal secretary • Tax preparer • Paralegal • Computer support specialist • Software engineer • Computer programmer • Production support analyst • Desktop publisher • Medical secretary • Real estate agent • Restaurant manager • Sales representative	• Marketing manager • Certified public accountant • Economist • Financial manager • E-commerce analyst • Securities sales representative • Systems software engineer • Systems analysis • Hospital administrator • Human resources • Manager • Chief executive officer • Manufacturing sales • Representative • Business analysts • Project manager • Sports and entertainment agent • Actuary

4-Year Planner for Business, Finance, and Information Technology (BFIT) Pathway

	Grade 9	Grade 10	Grade 11	Grade 12
English	General English 9 College Prep. English 9	General English 10 College Prep. English 10	General English 11 College Prep. English 11 AP English Language & Composition 11	General English 12 College Prep. English 12 Adv. Placement English Lit & Composition 12
Science	Biology	Environmental Science	Chemistry Forensic Science Applied Physics Conservation Science	Chemistry Forensic Science Applied Physics
Social Studies	World Cultures AP Human Geography	US History AP Human Geography	Government Adv. Placement US Govern. & Politics AP Human Geography	
Math	Math Concepts & Skills Algebra I Algebra II Plane Geometry	Algebra II Plane Geometry Trigonometry	Applied Geometry Algebra II Plane Geometry Trigonometry Statistics Pre-Calculus	Technical Math Money Management Plane Geometry Trigonometry Statistics Pre-Calculus AP Calculus
Required Elective	Health Education 9		Health Education 11	
Physical Education	Physical Education 9	Physical Education 10	Physical Education 11	
Pathway Electives (Other electives are available...see Course Offerings for more choices)				
	Intro to Agricultural Sci. Keyboarding I Spanish I German I Art I Current Events Hist. of Amer. Music I Journalism Concert Band Chorus AP Computer Sci Applic.	Intro to Agricultural Sci. Accounting I Business & Marketing Intro to Computer Prog. Keyboarding I, II Spanish I, II German I, II Art I, II Hist. of Amer. Music I, II Public Speaking Journalism Current Events Video Production Photography Concert Band Chorus Modern Band AP Computer Sci Principles IOS Applications Devel. Web Site Design & Devel.	Legal Studies Listening to History Exploring Citizenship Accounting I, II Theories of Leadership Business and Marketing Intro to Computer Prog. Keyboarding I, II Spanish I, II, III German I, II, III Art I, II, III Hist. of Amer. Music I, II Culinary Arts I Public Speaking Journalism World Geography Current Events Video Production Photography Concert Band Chorus Modern Band AP Computer Sci Principles IOS Applications Devel.	Legal Studies Listening to History Exploring Citizenship Accounting I, II Theories of Leadership Business and Marketing Intro to Computer Prog. Keyboarding I, II Spanish I, II, III, IV German I, II, III, IV Art, I, II, III, IV Hist. of Amer. Music I, II Culinary Arts I, II Movie Study Public Speaking Journalism World Geography Current Events Video Production Photography Concert Band Chorus Modern Band AP Computer Sci Principles

			Web Site Design & Devel.	IOS Applications Devel. Web Site Design & Devel.
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4-Year Planner for Business, Finance, and Information Technology (BFIT) Pathway

CCCTC Programs Aligned:	Commercial Art Electrical Occupations Electronic Technology Cosmetology Culinary Arts
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Engineering and Industrial Technology (EIT) Pathway

This Pathway is designed to cultivate students' interest, awareness and application to careers related to technologies necessary to design, develop, install, and maintain physical systems.

Are you interested in...	Can you...	Do you enjoy...
• Building and construction • Tools, equipment and materials • Woodworking • Math and science classes • Fitness and sports • Precision work • Design and architecture • Engineering • Computer technology • How things work	• Apply science and math to the real world • Read and understand directions • Solve problems • Understand and read maps • Organize reports and people • See a task through to completion • Use a computer	• Travel • Working with your hands • Designing/working with projects, models, and prototypes • Working in a lab • Working on a team • Operating tools and equipment • Paying close attention to detail

If you answered “yes” to many of these questions, you might consider a future in one of the sample occupations listed below.

Sample Careers

Entry	Technical/Skilled	Professional (4+ college)
• Carpet installer • Drywall worker • Roofer • Machine operator • Industrial machine mechanic • Baggage handler • Dock worker • Freight handler • Laborer • Warehouse worker Apprenticeships • Brick mason • Carpenter • Electrician • HVAC • Plumber • Machinist • Surveyor • Diesel mechanic	• Grader and dozer operator • Electrical technician • Metal engineering technician • Supervisor • Welder • Civil engineering technician • Robotics technician • CAD/CAM technician • Laser technician • Auto mechanic • Air traffic controller • Auto body repair • Bus driver • Diesel mechanic • Dispatch • Motorcycle mechanic • Taxi driver • Truck driver	• Construction manager • Cost estimator • Industrial production manager • Purchasing agent • Astronaut • Nuclear engineer • Petroleum engineer • NASA scientist • Chemical engineer • Technical writer • Architect • Civil engineering • Industrial engineering • Mechanical engineering • Aeronautical engineer • Aerospace engineer • Airline pilot • Transportation engineer

4-Year Planner for Engineering and Industrial Technology (EIT) Pathway

	Grade 9	Grade 10	Grade 11	Grade 12
English	General English 9 College Prep. English 9	General English 10 College Prep. English 10	General English 11 College Prep. English 11 AP English Language & Composition 11	General English 12 College Prep. English 12 Adv. Placement English Lit. & Composition 12
Science	Biology I Aeronautics I	Environmental Science Chemistry I Applied Physics Aeronautics I, II	Chemistry I, II Applied Physics Forensic Science Aeronautics II, III	Chemistry I, II Applied Physics Forensic Science Physics Aeronautics III, IV
Social Studies	World Cultures AP Human Geography	US History AP Human Geography	Government Adv. Placement US Govern. & Politics AP Human Geography	
Math	Algebra I Algebra II Plane Geometry	Algebra II Plane Geometry Trigonometry	Applied Geometry Algebra II Plane Geometry Trigonometry Statistics Pre-Calculus	Technical Math Money Management Plane Geometry Trigonometry Statistics Pre-Calculus AP Calculus
Required Elective	Health Education 9		Health Education 11	
Physical Education	Physical Education 9	Physical Education 10	Physical Education 11	
Pathway Electives (Other electives are available...see Course Offerings for more choices)				
	Intro to Agricultural Sci. Keyboarding I Diversified Technology Spanish I German I Art I Current Events Hist. of Amer. Music I Journalism Drama I Mythology Concert Band Chorus AP Computer Sci Applic.	Intro to Agricultural Sci. Plant & Greenhouse Sci. Small Animal Science Agriculture Mechanics Intro to Computer Prog. Keyboarding I, II Power & Structure I Drafting Technology I Pre-Engineering Spanish I, II German I, II Art I, II Hist. of Amer. Music I, II Public Speaking Current Events Video Production Photography Concert Band Chorus Modern Band	Intro to Agricultural Sci. AP Computer Science Floriculture Large Animal Science Welding & Small Gas Engines Intro to Computer Prog. Keyboarding I, II Power & Structure I, II, III Drafting Technology I, II Pre-Engineering Spanish I, II, III German I, II, III Art I, II, III Hist. of Amer. Music I, II Culinary Arts I Public Speaking Creative Writing World Geography Current Events Video Production Photography Concert Band Chorus Modern Band	Supervised Ag. Experience Welding & Small Gas Engines Intro to Computer Prog. Keyboarding I, II Power & Structure I, II, III Drafting Technology I, II Pre-Engineering Spanish I, II, III, IV German I, II, III, IV Art, I, II, III, IV Hist. of Amer. Music I, II Culinary Arts I, II Public Speaking Creative Writing World Geography Current Events Video Production Photography Concert Band Chorus Modern Band Legal Studies Listening to History Exploring Citizenship

			Legal Studies Listening to History Exploring Citizenship	
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4-Year Planner for Engineering and Industrial Technology (EIT) Pathway

CCCTC Programs Aligned:	Electrical Occupations Welding Auto Collision Carpentry Automotive Technology Diesel Precision Information Science Electronic Technology Computer Information Science Drafting and Design
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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.

Are you interested in...	Can you...	Do you enjoy...
• Working with people • Owning your own business • Aging adults • Child development • Family and social services • Food preparation • Teaching • Counseling	• Organize well • Plan and direct programs • Be creative • Communicate well • Assume leadership roles • Work with a team • Be conscientious and dependable • Plan budgets	• Communication services • Helping and protecting others • Working with people • Counseling and advising people • Serving others' needs • Interviewing people • Selling products or services • Handling customer complaints • Human problems

If you answered “yes” to many of these questions, you might consider a future in one of the sample occupations listed below.

Sample Careers

Entry	Technical/Skilled	Professional (4+ college)
• Child care worker • Cosmetic representative • Dry cleaning operator • Home health aide • Library assistant • Teacher's assistant • Postal services worker • Security guard • Utility worker • Aerobics instructor • Waitress • Baker • Travel agent	• Barber • Cosmetologist • Fashion designer • Manicurist • Massage therapist • Mortician • Truck driver • Personal trainer • Teacher's aide • Firefighter • Postmaster • Police officer • Flight attendant • Chef	• Funeral director • Therapist • Counselor • Professor • Principal • Teacher • Criminologist • FBI agent • Lawyer • Police officer • Park ranger • Executive chef • Food services manager • Hotel/motel management

4-Year Planner for Human Services (HS) Pathway

	Grade 9	Grade 10	Grade 11	Grade 12
English	General English 9 College Prep. English 9	General English 10 College Prep. English 10	General English 11 College Prep. English 11 AP English Language & Composition 11	General English 12 College Prep. English 12 Adv. Placement English Lit. & Composition 12
Science	Biology	Environmental Science	Chemistry I, II Forensic Science Applied Physics	Chemistry I, II Forensic Science Applied Physics
Social Studies	World Cultures AP Human Geography	US History AP Human Geography	Government Adv. Placement US Govern. & Politics AP Human Geography	AP Psychology
Math	Math Concepts & Skills Algebra Algebra II Plane Geometry	Algebra II Plane Geometry Trigonometry	Applied Geometry Algebra II Plane Geometry Trigonometry Statistics Pre-Calculus	Technical Math Money Management Plane Geometry Trigonometry Statistics Pre-Calculus AP Calculus
Required Elective	Health Education 9		Health Education 11	
Physical Education	Physical Education 9	Physical Education 10	Physical Education 11	
Pathway Electives (Other electives are available...see Course Offerings for more choices)				
	Spanish I German I Art I Current Events Hist. of Amer. Music I Journalism Drama I Mythology Keyboarding I Concert Band Chorus	Spanish I, II German I, II Art I, II Hist. of Amer. Music I, II Movie Study Public Speaking Journalism Creative Writing Current Events Video Production Photography Intro to Computer Prog. Keyboarding I, II Concert Band Chorus Modern Band	Theories of Leadership Spanish I, II, III German I, II, III Art I, II, III Hist. of Amer. Music I, II Culinary Arts I Intro. to Human Nutrition Movie Study Public Speaking Journalism Creative Writing World Geography Current Events Video Production Photography Intro to Computer Prog. Keyboarding I, II Concert Band Chorus Modern Band Pre EMT Legal Studies Listening to History Exploring Citizenship	Theories of Leadership Spanish I, II, III, IV German I, II, III, IV Art, I, II, III, IV Hist. of Amer. Music I, II Culinary Arts I, II Baking & Pastries Arts Intro. to Human Nutrition Movie Study Public Speaking Journalism Creative Writing World Geography Current Events Video Production Photography Intro to Computer Prog. Keyboarding I, II Concert Band Chorus Modern Band Pre EMT Legal Studies Listening to History Exploring Citizenship

4-Year Planner for Human Services (HS) Pathway

CCCTC Programs Aligned:	Health Occupations Commercial Art Cosmetology Culinary Arts
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Science and Health (SH) Pathway

This Pathway is designed to cultivate students' interests in the life, physical and behavioral sciences. In addition, it involves and planning, managing and producing of therapeutic services, diagnostic services, health information and biochemistry research and development. Many of the careers involved with the food, fiber, environmental and natural resource systems fall under this pathway

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

If you answered "yes" to many of these questions, you might consider a future in one of the sample occupations listed below.

Sample Careers

Entry	Technical/Skilled	Professional (4+ college)
• Hospital worker • Patient care technician • Dialysis technician • EEG technician • Home health aide • Nurse's aide, orderlies • Pharmacy technician • Physical therapy aide • Animal caretaker • Breeder • Extension service worker • Wildlife reserve worker • Optician • Data Entry • Farmer	• Certified nursing assistant • Dental hygienist • Emergency medical technician • Licensed practice nurse • Medical lab technician • Personal trainer • Radiological technician • Respiratory therapist • Dental lab technician • Fish and game worker • Forest conversationalist • GPS technician • Surveyor • Veterinary Technician	• Athletic trainer • Speech/Language pathologist • Dietician • Physician assistant • Medical examiner • Pharmacist • Physician • Registered nurse • Marine biologist • Soil conversationalist • Veterinarian • Chemist • Environmental scientist • Zoologist • Nuclear engineer

4-Year Planner for Science and Health (SH) Pathway

	Grade 9	Grade 10	Grade 11	Grade 12
English	General English 9 College Prep. English 9	General English 10 College Prep. English 10	General English 11 College Prep. English 11 AP English Language & Composition 11	General English 12 College Prep. English 12 Adv. Placement English Lit. & Composition 12
Science	Biology I	Environmental Science Chemistry I Biology II	Biology II Chemistry I, II AP Chem Medical & Scientific Term. Anatomy and Physiology Microbiology AP Biology	Biology II Chemistry I, II AP Chem Medical & Scientific Term. Anatomy and Physiology Microbiology AP Biology
Social Studies	World Cultures AP Human Geography	US History AP Human Geography	Government Adv. Placement US Govern. & Politics AP Human Geography	AP Psych
Math	Algebra I Algebra II Plane Geometry	Algebra II Plane Geometry Trigonometry	Applied Geometry Algebra II Plane Geometry Trigonometry Statistics Pre-Calculus	Technical Math Money Management Plane Geometry Trigonometry Statistics Pre-Calculus AP Calculus
Required Elective	Health Education 9		Health Education 11	
Physical Education	Physical Education 9	Physical Education 10	Physical Education 11	
Pathway Electives (Other electives are available...see Course Offerings for more choices)				
	Intro to Agricultural Sci. Spanish I German I Art I Current Events Hist. of Amer. Music I Journalism Drama I Mythology Keyboarding I Concert Band Chorus	Plant & Greenhouse Science Small Animal Science Agriculture Mechanics Spanish I, II German I, II Art I, II Hist. of Amer. Music I, II Movie Study Public Speaking Creative Writing Current Events Photography Intro to Computer Prog. Keyboarding I, II Concert Band Chorus Modern Band	Floriculture Large Animal Science Agriculture Mechanics Spanish I, II, III German I, II, III Art I, II, III Hist. of Amer. Music I, II Culinary Arts I Intro. to Human Nutrition Movie Study Public Speaking Creative Writing World Geography Current Events Photography Intro to Computer Prog. Keyboarding I, II Concert Band Chorus Modern Band Legal Studies Listening to History	Supervised Ag. Experience Spanish I, II, III, IV German I, II, III, IV Art, I, II, III, IV Hist. of Amer. Music I, II Culinary Arts I, II Baking & Pastry Arts Intro. to Human Nutrition Movie Study Public Speaking Creative Writing World Geography Current Events Photography Intro to Computer Prog. Keyboarding I, II Concert Band Chorus Modern Band Legal Studies Listening to History Exploring Citizenship

			Exploring Citizenship Pre EMT	Pre EMT
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4-Year Planner for Science and Health (SH) Pathway

CCCTC Programs Aligned:	Health Occupations Computer Information Sciences Electronic Technology
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Course Descriptions

English Courses

300 General English - (Grade 9)

1 credit

English 9 General is designed for the student who is not planning to attend college but will enter the workforce upon graduation or seek no-college post-secondary training. The reading selections include a survey of all literary genres. Vocabulary is incorporated through a variety of methods. Writing includes poems, stories, narrative, informational, and persuasive pieces. Students are expected to develop discussion and note-taking skills. In addition, students must prepare and deliver two formal speeches.

301 College Prep English - (Grade 9)

1 credit

English 9 College Prep is designed for the student planning to attend college. The reading selections include a survey of all literary genres. Vocabulary is incorporated through a variety of methods. Writing includes poems, stories, narrative, information and persuasive pieces. Students are expected to develop college-level discussion, research, and note-taking skills. In addition, students must prepare and deliver two formal speeches.

This course is designed to be academically challenging and will receive a weighted grade. The district recommends that this course be taken only by students proficient in language arts.

400 General English - (Grade 10)

1 credit

English 10 General is designed for the student who is not planning to attend college but will enter the workforce upon graduation or seek no-college post-secondary training. The reading selections emphasize word literature. Vocabulary is incorporated through a variety of methods. Writing includes a reinforcement of basic narrative, informational, and persuasive pieces with an emphasis on the composition format. Students are expected to develop discussion and note-taking skills. In addition, students must prepare and deliver two formal speeches.

401 College Prep English - (Grade 10)

1 credit

English 10 College Prep is designed for the student planning to attend college. The reading selections emphasize world literature. Vocabulary is incorporated through a variety of methods. Writing includes poems, stories, narrative, information and persuasive pieces. Students are expected to develop college-level discussion, research, and note-taking skills. In addition, students must prepare and deliver two formal speeches. This course is designed to be academically challenging and will receive a weighted grade. The district recommends that this course be taken only by students proficient in language arts.

500 General English - (Grade 11)**1 credit**

English 11 General is designed for the student who is not planning to attend college but will enter the workforce upon graduation or seek no-college post-secondary training. The reading emphasizes American literature. Vocabulary is incorporated through a variety of methods. Writing includes a reinforcement of basic narrative, informational, and persuasive pieces with an emphasis on the composition format. Students are expected to develop discussion and note-taking skills. In addition, students must prepare and deliver two formal speeches.

501 College Prep English - (Grade 11)**1 credit**

English 11 College Prep is designed for the student planning to attend college. The reading selections chronologically survey American literature, emphasizing American history and philosophy. Vocabulary is incorporated through a variety of methods. Writing includes poems, stories, narrative, information and persuasive pieces and a research paper. Students are expected to develop college-level discussion, research, and note-taking skills. In addition, students must demonstrate proficiency in public speaking. This course is designed to be academically challenging and will receive a weighted grade. The district recommends that this course be taken only by students proficient in language arts.

600 General English - (Grade 12)**1 credit**

English 12 General is designed for the student who is not planning to attend college but will enter the workforce upon graduation or seek no-college post-secondary training. The reading selections include a survey of all literary genres with an emphasis on British literature. Vocabulary is incorporated through a variety of methods. Writing includes poems, stories, narrative, informational, and persuasive pieces. Students are expected to develop discussion, research, and note-taking skills. In addition, students must demonstrate proficiency in public speaking. There is a strong component of career exploration and future planning.

601 College Prep English - (Grade 12)**1 credit**

English 12 College Prep is designed for the student planning to attend college. The reading selections chronologically survey British literature, emphasizing British history, and philosophy. Vocabulary is incorporated through a variety of methods. Writing includes narrative, information and persuasive pieces with emphasis on the college-level essay format. Students are expected to develop college-level discussion, research, and note-taking skills. In addition, students must demonstrate proficiency in public speaking. This course is designed to be academically challenging and will receive a weighted grade. The district recommends that this course be taken only by students proficient in language arts.

503 AP English Language and Composition - (Grade 11)**1 credit**

AP English Language and Composition is an introductory college-level composition course. Students cultivate their understanding of writing and rhetorical arguments through reading, analyzing, and writing texts as they explore topics like rhetorical situations, claims and evidence, reasoning and organization, and style. In the AP English Language and Composition course, students will study American Literature as a base of these compositions. Included is a study of grammar, vocabulary and poetry as well.

603 Advanced Placement English Literature and Composition - (Grade 12) 1 credit

This reading-intensive course is designed for twelfth-grade students who have demonstrated consistent high achievement in English over the previous three years. The course integrates advanced study of literature and composition, emphasizing critical reading and analytical writing. Students will develop mastery of literary terminology and strengthen their ability to understand, explain, and evaluate complex texts. Writing assignments focus on analytical, literature-based essays that examine an author's use of structure, style, theme, figurative language, and imagery, and how these elements contribute to the work's overall meaning.

787 Young Adult Literature 1 - (Grades 9-12)**1 credit**

Students enrolling in Young Adult Literature will read novels published primarily in the last ten years. Selections will be from a variety of genres, including realistic fiction, science fiction, fantasy, dystopian fiction, multicultural literature, graphic novels, and award winners. Students will examine the historical development of the young adult literature genre, characteristics of young adult literature, and current trends. Students will also continue to develop skills in literary analysis and interpretation through a variety of activities, including discussion, writing, projects, and presentations.

788 Young Adult Literature II - (Grades 9-12)**1 credit**

Students enrolling in Young Adult Literature II: Paired Texts will focus on nonfiction materials published primarily in the last ten years. Paired with the nonfiction texts will be texts written in other formats, such as fiction, novels in verse, and graphic novels. The readings will also be supplemented with shorter non-fiction texts, such as blog posts, social media feeds, newspaper articles, and magazine/journal articles – chosen by the instructor and the students. The goal is to enhance knowledge in a variety of content areas, such as science, health, and social studies, while studying current, high-interest texts in different formats from varying points of view. Students will also continue to develop skills in analysis of both fiction and nonfiction, comprehension, and interpretation through a variety of activities, including discussion, writing, projects, and presentations.

Mathematics Courses

329 Math Concepts and Skills

1 credit

Math Concepts and Skills is designed to strengthen students' foundational understanding of mathematics while building confidence and fluency in problem-solving. Through engaging lessons and targeted practice, students will explore key topics including Equations and Inequalities, Units, Linear Relationships, Functions and Sequences, Exponents, Radicals and Irrational Numbers, and Quadratics. The course emphasizes mathematical vocabulary, computational speed and accuracy, and conceptual understanding to support a smoother transition into higher-level math courses.

330 Algebra I

1 credit

The content of the Algebra 1 course is based on the assumption that all students have obtained competency in the four basic operations with whole numbers, fractions, and decimals. Topics covered include: solving equations, operations on polynomials, factoring, graphing, solving systems of equations and solving word problems.

433 Algebra II - (Prerequisite: Algebra I)

1 credit

This course reviews and enhances the concepts and skills learned in first year Algebra. Algebra II includes an extended study of operations on polynomials, graphs of linear equations, and solving quadratic equations. Additionally, students will master the skills of solving inequalities, absolute values, and solving systems of two and three equations. More advanced topics will include the operations on both irrational numbers and complex numbers. One of the highlights of the course will be the opportunity to utilize the graphing calculator to develop insights and an appreciation for the use of today's technology in the field of mathematics.

734 Plane Geometry - (Grades 9-12)

1 credit

(Prerequisite: Algebra II - can be taken concurrently)

The geometry course is designed to develop and extend the logic and reasoning ability of each student. The concept of a proof, both inductive and deductive, is developed throughout the course. Topics covered include: logic, congruent and similar triangles, polygons, circles, construction, and area. This course will encourage students to think creatively and independently.

735 Trigonometry - (Grades 10-12) (Prerequisite: Plane Geometry) 1 credit

This course provides working knowledge and applications of plane trigonometry, analytical geometry, and advanced topics in algebra. The trigonometry portion of the course deals with solving both right and oblique triangles, graphs of trigonometric functions and solving trigonometric equations. Additional topics covered in this course include: complex numbers, polar coordinates and equations, exponential and logarithmic functions, sequences and series, and conic sections. There will be a strong emphasis placed on “real-life” applications of trigonometric skills.

736 Pre-calculus - (Grades 11-12) (Prerequisite: Trigonometry) 1 credit

The principal objective of Pre-calculus is to provide those students planning on taking college-level math and science courses with the best possible understanding and integration of algebra, trigonometry, analytical geometry, and discrete math. Students will be expected to solve problems algebraically, numerically, and graphically. Real-life applications and data from various fields of science, business, economics, engineering, and statistics will be used extensively. Students will be exposed to numerous problem-solving techniques, many including the use of technology. All students will be expected to use a graphing calculator to visualize and solve problems.

739 AP Calculus - (Grade 12) (Prerequisite: Trigonometry) 1 credit

This course begins with an in-depth analysis of elementary functions. A transformational approach is utilized in graphing quadratic, polynomial, and rational functions. Extensive coverage of polynomial functions and theory of equations provides the background for learning concepts of calculus – limits, continuity, differentiation, and integration. Applications of differentiation and integration are investigated. This course is designed to be computational and an intuitive approach is used.

731 Statistics - (Grades 11-12) 1 credit

In this course we will understand the differences among various kinds of studies and which types of inferences can legitimately be drawn from each, understand histograms, parallel box plots, and scatterplots and use them to display data, and compute basic statistics and understand the distinction between a statistic and a parameter. Also, we will understand how sample statistics reflect the values of population parameters and use sampling distributions as the basis for informal inference and understand the concepts of sample space and probability distribution and construct sample spaces and distributions in simple cases.

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Social Studies Courses

310 World Cultures - (Grade 9) (Required)

1 credit

This course covers the development of the major cultures of the world. The cultural development of man will be followed from early existence through today's technologically advanced world. Emphasis will be placed on differences and similarities of various cultures and their views on politics, religion, and their contribution to today's world.

410 US History III - (Grade 10) (Required)

1 credit

During this course, students will study what Historians now refer to as "Modern American History." Starting with a brief refresher of World War II, we will trace and connect the many political, social, and economic events that have shaped the United States to our present day. We will connect and analyze major events following WWII including the Cold War, the Korean Conflict, 1950s Suburbanization, the Space Race and the New Frontier, the Great Society, the domestic Civil Rights Movement, Counter Culture, Vietnam War, Watergate, 1970s unrest in the Middle East, the Conservative 1980s, the Persian Gulf Conflict, the 1990s and the New Millennium.

510 Government - (Grades 11-12) (Required or AP Government)

1 credit

This course is required for students before they graduate, preferably in 12th grade. Students will study government at the local, state and national levels. Students will also study the Judicial, Legislative, and Executive branches of government. There will also be a focus on Pennsylvania's role in the development of our country.

512

Advanced Placement United States Government & Politics (Grades 11-12) 1 credit

The College Board developed AP U.S. Government and Politics as an introductory college-level course in U.S. government and politics. Students will cultivate their understanding of U.S. government and politics through analysis of data and text-based sources as they explore topics like constitutionalism, liberty and order, civic participation in a representative democracy, competing policy-making interests, and methods of political analysis. This course would be an accelerated, honors-type course that would also allow students to take the AP Exam at the end for college credit.

709 AP Psychology (Grades 11-12) (Elective)

In this course, students will study an introductory collegiate level of Psychology, particularly to prepare a potential social science leaning undergraduate with a foundation of psychological theories, development, and practice. Students will investigate theories, topics and applications in the field of psychology across biological, cognitive, social, developmental and clinical areas. Identify ways in which the science of psychology affects everyday lives and gain knowledge in multiple areas of psychology. Analyze and make connections among different theories of psychology. Identify ways in which different perspectives and theories contribute to a fuller understanding of human behavior. Identify ways in which different perspectives and theories contribute to a fuller understanding of scientific research and application.

712 AP Human Geography (Grades 11-12) (Elective)

1 credit

The Advanced Placement Geography gives students the opportunity to earn college credit in geography while still in high school. More importantly, the content of an AP Geography course helps students develop critical thinking skills through the understanding, application and analysis of the fundamental concepts of geography. Through AP Geography, students are introduced to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of the Earth's surface. Students will employ spatial concepts and landscape analysis to analyze human social organization and its environmental consequences. Students will meet the five college-level goals as determined by the National Geographic Standards. They also learn the methods and tools geographers use in their science and practice. Students who take AP Human Geography can seek college credit and/or advanced placement from institutions of higher learning.

713 Legal Studies (Grades 11-12) (Elective)

1 credit

This course offers high school students an opportunity to analyze legal careers and the origins/purposes of laws of all types and jurisdictions. This course, in cooperation and accordance with the American Bar Association, covers the Constitution and several of its key amendments, due process, environmental law, voting, structure of the judicial system, jobs within the legal system, intellectual property, human rights, news literacy, and civic involvement. Students will also be required to read, write, and share (both verbally and through writing) on several cases of their personal interest.

711 Current Events - (Grades 9-12) (Elective)**0.5 credit**

The Current Events course is based upon a thematic approach, where the students, on an international, national, and local level will investigate several topics. Students are required to analyze and critique various topics and illustrate the relationship/impact that can occur within these three levels. Students will utilize the following resources to examine the predetermined topics: USA TODAY newspaper, TIME Magazine and on-line periodical database. In a given week, approximately two class periods will be spent having students research articles related to the assigned topic. Approximately two additional class periods will be dedicated to the student preparation of the analysis and the presentation. And one class period will be committed to students submitting their final product for that particular topic. Students will be evaluated through a variety of presentation techniques that include, but are not limited to, reports, debates, presentations and models. This course is designed to enhance and provide increased opportunity for student reading, writing, and speaking. Strategies utilized in this course encourage the use of print material, technology and critical thinking skills.

714 Listening to History (Grades 11-12) (Elective)**0.5 credit**

Students will examine and analyze significant artists, songs, historical events, and movements and how significantly they have impacted both domestic American History and world events. Students will examine events through a political, economic, and social analysis in line with current CSD approved Social Studies curriculum. Focus will be on studying a historical event, analysis of music and lyrics, and writing and debating contemporary and retrospective views. The course will primarily examine 20th century events and relevant protest music, theatre production screenplay/lyrics, poetry and/or literature with some nod to early American History (American Revolution/Civil War).

715 Exploring Citizenship (Grades 11-12)**0.5 credit**

This course is a practical exploration of the legal aspects of citizenship and adulthood in America. At the end of this course, you will be able to analyze their Individual Rights and Responsibilities as an American. Understand how to interpret the US Census and the form and function of local and state elected offices. You will shift from passive receivers to critically engaged participants in American Society with hands-on practice skills of interpretation and critical analysis. Finally, you will be exposed to practical legal processes and consumer practice common to every American Citizen.

710 World Geography - (Grades 9-12) (Elective)**0.5 credit**

This course is designed so the learner will be able to obtain practical geographical information about the world's countries, regions, and cultures. At the end of this course you will understand how to use maps, tools, and technology to report information. You will understand the various types of government and economies throughout the world while being able to explain how humans interact in the world.

Science Courses

320 Environmental Science (Grades 9-12)

1 credit

Environmental Science is an essential course for citizens in today's global community. The purpose of Environmental Science is to introduce the dynamics of environmental systems as well as analyze environmental concerns, both local and global. Topics covered will include: earth's spheres (biosphere, atmosphere, geosphere, hydrosphere), community ecology (ecosystems; biotic & abiotic factors, relationships), energy flow and recycling of matter (food webs and chains, biogeochemical cycles), population ecology, biomes, and human impact on the environment.

321 Biology I - (Grades 9-10 - Required)

1 credit

This course is intended to prepare students for the Biology Keystone Exam, as well as for future science courses such as Biology 2, Environmental Science, Anatomy & Physiology, and Microbiology. This course will introduce the following subject matter to students: characteristics of life, scientific method, basic biochemistry, photosynthesis, cellular respiration, structure and function of the cell, cell growth and reproduction, basic genetics, evolution, and an introduction to ecology.

723 Biology II - (Grades 10-12) (Prerequisite: Biology I)

1 credit

This course is intended to be a continuation of Biology. It will provide students with a deeper understanding of genetics and the molecular basis for life and inheritance, allowing them to grasp evolutionary relationships and the diversity of life on Earth.

521 AP Biology - (Grades 11-12)

1 credit

This Biology course is designed to help students build a solid foundation in a college-level Biology curriculum. We will use independent readings, class discussions, online resources, and laboratory exercises to develop this foundation. These actions, interwoven with oral, written, group, and individual activities, will foster an atmosphere of inquiry and discovery of the biological world around us. Students must maintain a lab notebook/portfolio, either hard-copy or electronic. This course is structured around the concepts of evolution, homeostasis, heredity, and ecology. This course is associated with the College in the Classroom Program sponsored by The University of Pittsburgh and the AP Program from the College Board.

724 Physics - (Grades 11-12) 1 credit
(Prerequisite: Trigonometry - can be taken concurrently)
Concurrent Enrollment - can be taken for college credit

Physics is a survey of the physical concepts of kinematics, dynamics, statics, energy, waves, and thermodynamics. This course is designed to meet the needs of students who plan to continue study in the field of science and/or technology. This course is associated with the College in the Classroom Program sponsored by The University of Pittsburgh.

726 Applied Physics - (Grades 11-12) 1 credit

Applied Physics is a hands-on approach to physics for those students who are considering a technological education. Principles motion, energy, momentum, optics , and electromagnetism will be explored in the laboratory environment, using the scientific method and engineering principles

727 Anatomy and Physiology - (Grades 11-12) 1 credit

Human Anatomy and Physiology is designed to prepare students for college courses and technical courses in the medical or health fields, as well as those students simply interested in the anatomy and physiology of the human body. This course involves a systemic study of the body with emphasis on the skeletal, muscular, cardiovascular and nervous systems. Students will be exposed to the study of human and comparative anatomy, with specific emphasis placed on preparing students for careers in health care. Students will apply information acquired through text, web, simulation, and lecture sources to dissections and laboratory experiments. The text used in this course is written at the college level and should facilitate a smooth transition for students.

716 Medical and Scientific Terminology - (Grades 10-12) 1 credit

Medical terminology is designed to introduce students to basic medical language and terminology that they would need to enter a health care field. Emphasis will be placed on definitions, proper usage, spelling, and pronunciation. Students will employ a systematic word-building approach to master the complex terminology that pertains to body systems, anatomy, physiology, medical processes and procedures as well as a variety of diseases. The course includes but is not limited to terms related to anatomy of the human body, functions of health and disease, and the use of language in processing medical/dental records. Upon completion of this course the student should be able to understand the necessity of medical vocabulary, build medical words from component parts, and explain the meaning associated with each unit and identify and discuss basic pathology associated with all entities.

729 Microbiology - (Grades 11-12)**1 credit**

This course is designed for those students who want to study microorganisms and their activities. It is concerned with the form, structure, reproduction, physiology, metabolism and identification of microbes. Students will apply science and engineering practices to real-world investigations involving the study of microorganisms' distribution in nature, their relationship to each other and other living things, their effects on humans, and changes they make in their environment. Students will develop a working understanding of, and the skills necessary to, cultivate and study microorganisms in the laboratory.

721 Chemistry I - Inorganic Chemistry - (Grades 10-12)
(Prerequisite: Algebra I)**1 credit**

This is a college preparatory basic level chemistry course. Fundamentals taught include the review and usage of the metric system, classification of matter, history of the development of atomic structure, the periodic table and its trends, bonding, stoichiometry, equilibrium, the Gas Laws, and acid base theory. Course includes laboratory experience that demonstrates concepts and experience laboratory methods common in a chemistry laboratory.

722 Chemistry 2 - Organic Chemistry - (Grades 11-12)
(Prerequisite: Algebra I)**1 credit**

A large part of Advanced Chemistry will cover concepts of organic chemistry. Topics include nomenclature, structure, properties, reactions, and mechanisms of hydrocarbons, alkyl halides, alcohols, and ethers; further topics include isomerization, stereochemistry, and spectroscopy. Laboratory experiments reinforce the basic principles discussed in lecture as well as provide practical examples.

717 AP Chemistry - (Grades 11-12)**1 credit**

This AP Chemistry course is designed to offer students a solid foundation in chemistry, similar to what they would receive in a first year college chemistry course. The course is structured around the six big ideas articulated by the AP chemistry curriculum framework provided by the College Board. Labs and inquiry based activities are an essential part of this AP Chemistry course. The more opportunities students have to learn by doing and discovering, the deeper their understanding of the material will be. The process of inquiry in science and the development of critical thinking skills is a critical part of this course. Students will spend a significant percent of class time engaged in laboratory and inquiry based activities.

718 Forensic Science - (Grades 10-12)**1 credit**

Forensic Science is the application of science (chemistry, physics, and biology) to the criminal and civil laws that are enforced by police agencies in a criminal justice system. It includes the investigation of fingerprinting, fiber analysis, ballistics, arson, trace evidence analysis, poisons, drugs, blood spatters, and blood samples. Students are taught the proper collection, preservation, and laboratory analysis of various samples

324 Aeronautics I (Grades 9-10)**1 credit**

This introductory course will provide the foundation for advanced exploration in the areas of flying and unmanned aircraft systems. Students will learn about the engineering process, problem solving, and the innovations and technological developments that have made today's aviation and aerospace industries possible.

325 Aeronautics II (Grades 10-11)**1 credit**

This course will introduce students to basic aircraft and UAS structures and their major components, principles of flight, and the fundamental physical laws affecting flight. Students will learn about basic aerodynamics and forces that act on aircraft in flight. This course will also introduce the main systems found on large and small airplanes and UAS.

326 Aeronautics III (Grades 11-12)**1 credit**

This course is foundational for both manned and unmanned aviation, and will prepare students to take either of two Federal Aviation Administration tests: the Private Pilot Knowledge Test or the Part 107 Remote Pilot Knowledge Test. Topics include: pre-flight procedures, airspace, radio communications, aviation phraseology, regulations, airport operations, aviation safety, weather, cockpit management, and emergency procedures.

327 Aeronautics IV (Grade 12)**1 credit**

After preparing for the Part 107 Remote Pilot Test in the previous year, this year, they will be using that certification—and the knowledge they acquired pursuing it—in real-world scenarios that illustrate how drones are used across a wide variety of industries today. Students will also learn how drone operations can be used to build or enhance a business, and the entrepreneurial skills necessary to get a start-up off the ground. They will also review drone rules within their communities, which will enable them to make recommendations to elected officials on how to optimize UAS technology and plan for the future where they live. Finally, students will learn about and conduct different types of research in preparation for their capstone project in the second semester.

720 Conservation Science (Grades 10-12)

1 credit

Students will be learning the following topics: history of conservation, the North American Model of Wildlife Conservation, public land, and waters, private land conservation, hunting, fishing, trapping, and boating. This course will include laboratory experience demonstrating these topics in outdoor hands-on activities along with real-life professionals in the classroom from the game warden to DCNR for forest fires and an owner of a taxidermy business.

Physical Education & Health

340, 540, 640 Physical Education

(0.5 credit - Grades 9 & 11, 1 credit - Grade 10; optional Grade 12)

The students will receive instruction in the areas of team, individual and life-time sports. They are encouraged to participate in group activities which help to enhance their physical development and coordination ability.

341, 541 Health Education - (Grades 9 & 11)

0.5 credit

This course is designed to aid students in evaluating their own health knowledge and behavior so they are better equipped to face the critical health issues of today. Students will look closely at their own lifestyles, learn skills to change negative behavior, and set goals for improving their well being. Students will participate in simple experiments, self-inventories, and projects related to topic areas.

641 Pre- EMT - (Grades 11-12)

1 credit

This course is designed to introduce students to the information and skills required of an EMR or EMT-Basic. After successful completion of this program, the student should be able to perform the following functions:

1. Recognize the nature and seriousness of the patient's condition or extent of injuries to assess requirements for emergency medical care.
2. Suggest how to administer appropriate emergency medical care based on assessment findings of the patient's condition.
3. Demonstrate how to lift, move, position and otherwise handle the patient to minimize discomfort and prevent further injury.

Once the student completes this course, he/she will have been exposed to the knowledge and skills that are required to enroll in an emergency medical technician (EMT) or emergency medical responder (EMR) course taught by a certified instructor. This course **does not** qualify you to take a certification exam or apply for a state licensure

Agricultural Education

382 Introduction to Agricultural Sciences (Grades 9 - 12)

1 credit

This course is a prerequisite for higher level agriculture courses. Students are introduced to current events in agriculture, crops, soils, conservation, livestock, and fields of agriculture service and occupations. Students will participate in the National FFA Organization and learn about its importance in agricultural education. Topics include but are not limited to public speaking, leadership, animal science, plant science and natural resources. Students are also required to maintain a Supervised Agricultural Experience (SAE) throughout the school year.

384 Small Animal Science (Prerequisite Intro to Agricultural Science)

1 credit

This course will focus on the science behind the care and management of companion animals. Small and companion animals such as dogs, cats, rabbits, rodents, reptiles, amphibians, fish, birds, and other exotic species may be studied. Topics may include, but are not limited to basic anatomy, reproduction, nutrition, health care, and related careers will be examined throughout the course for each species. Common diseases and conditions will also be studied through lab exercises and projects, which may include dissections, injections, surgical procedures and basic first-aid. All students enrolled in this course are given the opportunity to participate in the National FFA Organization and are required to maintain a Supervised Agricultural Experience (SAE) throughout the school year.

484 Large Animal Science (Prerequisite Small Animal Science)

1 credit

This course will focus on the science behind the care and management of agricultural animal species. Students will study key livestock species including beef, dairy, goats, sheep, swine, equine and poultry used in agriculture and in everyday life. Topics may include, but are not limited to basic anatomy, reproduction, nutrition, healthcare, and related careers. Students will also become familiar with animal-based industries in Crawford County and Pennsylvania. All students enrolled in this course are given the opportunity to participate in the National FFA Organization and are required to maintain a Supervised Agricultural Experience (SAE) throughout the school year.

383 Plant & Greenhouse Science (Prerequisite: Intro to Agricultural Science)

1 credit

This course will focus on the anatomy and physiology of plants, greenhouse management, plant reproduction, integrated/biological pest control and careers related to plant sciences. Students in this course will be responsible for maintaining the greenhouse using it to research and cultivate various plants. All students enrolled in this course are given the opportunity to participate in the National FFA Organization and are required to maintain a Supervised Agricultural Experience (SAE) throughout the school year.

483 Floriculture (Prerequisite Plant & Greenhouse Science)**1 credit**

This course will include both elements of floriculture and landscape. We will learn more in depth about plant anatomy and physiology, plant and tool identification, plant diseases, elements of design, and soil science. All students in this course are given the opportunity to participate in the National FFA Organization and are required to maintain a Supervised Agricultural Experience (SAE) throughout the school year.

385 Agriculture Mechanics**1 credit****(Prerequisite: Introduction to Agricultural Sciences)**

This hand-on course is the first of the mechanics pathway. This course includes both the safety instruction and certification of equipment used in the agricultural shop. Possible topics include electricity, basic plumbing, concrete, and metalworking. Research will also be completed to learn about different careers within mechanics. All students enrolled in this course are given the opportunity to participate in the National FFA Organization and are required to maintain a Supervised Agricultural Experience (SAE) throughout the school year.

482 Welding and Small Gas Engines**1 credit****(Prerequisite: Agriculture Mechanics)**

Welding and Small Gas Engines is designed to introduce students to the fundamentals of agricultural mechanics focusing on welding and small gas engines. Students learn basic terminology used in the agricultural mechanics industry, safe work practices, agricultural tools and metal skills. Welding/Small Gas Engines is a shop/laboratory oriented course that emphasizes basic knowledge and application of shop safety rules and proper use of tools and materials. SMAW, MIG TIG, oxyacetylene welding and cutting skills, and principles of small gas engines are learned. Skill and age-appropriate projects are constructed to give students opportunities to apply agricultural mechanics principles. Welding/Small Gas Engines also includes agricultural leadership and employability skills.

582 Agricultural Business and Finance Capstone**1 credit****(Prerequisite: Introduction to Agricultural Sciences)**

In this course, 12th grade students will use skills in mathematics, reading, and writing to learn business management in agriculture. Topics such as budgeting, record keeping, business planning, marketing, and supply and demand will be covered. Students will gain an understanding of the economic value of agriculture in Crawford County, Pennsylvania, the United States and the world. All students enrolled in this course are given the opportunity to participate in the National FFA Organization and are required to maintain a Supervised Agricultural Experience (SAE) throughout the school year.

682 SAE (Supervised Agricultural Experience) I-IV**1 credit**

This course does not meet during the regular school day, but credits outside-of-class experiences incorporated into the agricultural science or engineering course the student is currently taking. An SAE or a Supervised Agricultural Experience is a student-managed project where FFA members own and operate an agricultural business, get a job or internship, plan and conduct scientific experiments or explore careers within the agricultural industry. The agricultural science and engineering instructors supervise these outside projects as students maintain accurate records within the online Agricultural Experience Tracker (AET) record keeping system. Experiences are based on the knowledge and skills taught in the agricultural science and engineering courses and customized to the student's selected career objective. Students must also be enrolled in a different agricultural education course.

Art Education

370 Art I - (Beginner) (Grades 9-12)

1 credit

This course is designed to meet the needs of students who have an interest in enhancing their creativity, knowledge, and range of skills in art and design. Topics that will be covered are: Commercial Art/Graphic Design, Design and Composition, Color Theory and Painting, 3-Dimensional Design, 20th Century Art History and drawing and perspective. Emphasis is placed not only on developing skills, but on producing a quality product, problem-solving, and following directions. Students can expect lessons that are structured but allow for ample creativity.

470 Art II - (Intermediate) (Grades 10-12)

1 credit

Second course in Art and Design. Differs from the Beginning Course in that a wider range of materials and media will be used and that a higher level of technical skill is expected. Drawing, painting, and both 2- and 3-dimensional design skills will be stressed. Careers in the visual arts will also be explored.

570, 670 Art III and IV - (Advanced) (Grades 11-12)

1 credit

This course is for students who have a serious interest or advanced skills and have successfully completed both Beginning and Intermediate courses. Topics such as art styles, media, and technique will be explored. Students will be required to display content as well as skill in their work. Students can expect to produce a large amount of work as a means of discovering personal strengths, style, and career direction.

771 Photography (Grades 11-12)

0.5 credit

This course is for students who have a serious interest in taking quality photographs or in exploring it as a career interest. The course will cover: Basic 35mm camera operation and care, photographic composition, creative control of the camera, special effects, layout and display, careers in photography, and shooting color film. Limited to 16 students due to camera availability.

775 Video Productions (Grades 11-12)

0.5 credit

This course will provide students with a basic understanding of the video production process. In this hands-on, cooperative learning environment students will learn each stage of video production, and will master the skills necessary to work with the equipment and software involved in basic digital video production and basic television broadcast. Students will also explore the elements of media, journalistic integrity, copyright law, and basic Cinematography as they complete various projects for the course. Students will develop these skills through a variety of both group and individual projects.

Language Arts Education

779 Creative Writing - (Grades 9-12)

0.5 credit

This is an elective course designed for students who wish to develop or enhance their creative writing skills. Students will read and analyze various types of prose and poetry models and write their own prose and poetry incorporating the techniques studied. Through constant practice of various literary techniques, students will develop their own writer's voice.

774 Journalism - (Grades 9-12)

0.5 credit

This course is for students to use photography and journalism techniques to create the school newspaper. Students will work to complete various projects that will incorporate writing assignments, layouts, and photographic techniques. Although photography is not a prerequisite, knowledge of photography will greatly enhance the quality of the finished product.

778 Mythology - (Grades 9-12)

0.5 credit

Students will become acquainted with prominent archetypes and themes through stories drawn from around the world. The course is designed to create awareness of other people's cultural bases and increase both respect for others and an appreciation of our own place in the world. In addition, the course will offer experiences in researching and selecting appropriate tales, organizing information, and planning and performing a dramatic presentation.

776 Drama I (Grades 9-12)

Students shall investigate the basic components of the Dramatic Arts. This may include theater history and important playwrights from different historical periods and their works. Technical topics for investigation may include: acting, lighting, scene design, costuming, and make-up. Whenever possible, a hands-on approach will be utilized with students participating in appropriate lab work. Assignments may include the reading of representative scripts of various types. Mini-productions may be rehearsed and performed.

777 Drama II - (Grades 10-12)

This class will focus on the production of minor/major productions. Students will be expected to memorize, rehearse, and perform various types of plays. Both onstage and backstage personnel will be needed

690 Movie Study (Grades 9-12)**0.5 credit**

Students will recognize classic film characters, plots, themes, actors, and music and understand allusions to these films in other media. Students will understand the basic language of film and the ways it communicates messages to the audience.

765 Public Speaking (Grades 9-12)**0.5 credit**

Open to students in grades 10-12, Public Speaking is an introductory course that explores the traditional formal communication process and aims to help students build confidence speaking in front of an audience. Techniques for practical speech writing, anxiety reduction, and visual aid usage are utilized.

Music Education

746, 751 Chorus (Grades 9-12)

1 credit, 0.5 credit

This class provides a great opportunity for senior high students to study and perform vocal music. The development of vocal skills and musicianship will be the primary focus of the class and the acquired skills will be put into practice in several performances throughout the year. We will use a wide variety of music to achieve the objectives of this class, from classics to contemporary selections.

748, 750 Concert Band (Grades 9-12)

1 credit

Students are provided the opportunity to advance their music talents in an instrumental group situation. The class meets daily, all year, for 40 minutes. Weekly group lessons are provided and required. **Students are strongly encouraged to participate in the other instrumental musical organizations (marching band, jazz band, small ensembles) in the school. However, they are not required to do so to be in the Senior High Band.** Since this is a performing group, four graded performances, after school hours, are required. Additional graded performances may be added.

757 Modern Band (Grades 9-12)

0.5 credit

This class is an exploration into production and creation of popular music through the medium of a modern "rock" band for students in grades 9 - 12. Students will be provided with the opportunity to learn and grow in basic knowledge of guitar, keyboard, bass, drum set, vocals, and creation of music through a "rock" combo. This course is designed so that any level of student can be a part of the ensemble and directed towards growth on each of the instruments

755, 756 History of American Music I & II (Grades 9-12)

0.5 credit, 0.5 credit

The primary focus is developing the listening capacities of the student by exposing him continually to diverse pieces of contemporary music. The majority of this will be what might be called "popular" music such as rock, folk, country-western, and other forms, as yet unlabeled, but existing within and between these three major forms. The area of jazz and jazz-rock will be explored. Lastly, new experimental styles will be studied that have contributed to the direction of the earlier stated forms. In this group we shall include electronic music for therein, computer, synthesizer, and other electronic instruments. Chance music, improvisation, and multimedia music as well as music for television, films and radio will be explored. The recording industry will also be studied to expose to students what is actually necessary to have a "hit" record from the writing of the song to the million dollar contracts for a film or television show. Musical theater will be touched upon in light of the musical appropriateness of different shows. Great concern will always be exerted in an analysis of the meaning of improvisation as listened to in jazz and other forms.

Computer Science Education

399 AP CSP - Computer Science Principles (Grades 9-12)

AP Computer Science A is equivalent to a first-semester, college level course in computer science. The course introduces students to computer science with fundamental topics that include problem solving, design strategies and methodologies, organization of data (data structures), approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. The course emphasizes both object oriented imperative problem solving and design using Java language. These techniques represent proven approaches for developing solutions that can scale up from small, simple problems to large, complex problems. The AP Computer Science course curriculum is compatible with many CS1 courses in colleges and universities.

780 Intro to Computer Programming - (Grades 9-12)

1 credit

This course is designed to help develop the student's logical thinking and problem solving skills. The concepts introduced in the literacy course will be greatly expanded. The computer language presently used is True BASIC, designed by the same two authors of the original BASIC. The student will write computer programs to solve a variety of problems using If/Then statements, For-Next loops, DO loops, single and double dimension arrays, counters, and sums, as well as various input and output commands. The students will be introduced to Hypercard stacks and will learn navigation using programmed buttons (similar to a link on the web).

698 IOS Applications Development - (Prerequisite: Pass Algebra I with at least a "C" and completion of a previous computer course)

1 credit

IOS App Development using Swift and Xcode introduces students to computer science topics such as problem solving, design and methodologies. By the end of the course, students will have designed and created their own basic apps that can run on an iPhone or iPad. Swift is an open-source, relatively new programming language designed to build IOS and OS X apps that builds on the best of C and Objective-C, without the constraints of C compatibility. The language is much easier to learn than C languages and shares a lot of syntactical similarities with Java language. Xcode is an incredibly productive environment for building amazing apps for Mac, iPhone, and iPad.

699 AP CSA Computer Science Applications (Programming) 1 credit
(Prerequisite: Pass Algebra I with at least a “C”
and completion of either AP CSP or Intro to Prog.)

AP Computer Science A is equivalent to a first-semester, college level course in computer science. The course introduces students to computer science with fundamental topics that include problem solving, design strategies and methodologies, organization of data (data structures), approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. The course emphasizes both object oriented imperative problem solving and design using Java language. These techniques represent proven approaches for developing solutions that can scale up from small, simple problems to large, complex problems. The AP Computer Science course curriculum is compatible with many CS1 courses in colleges and universities.

782 Web Site Design and Development (Grades 10-12) 1 credit
Concurrent enrollment - can be taken for college credit

The objective of this course is to provide a basic understanding of the methods and techniques of developing a simple to moderately complex website. Using the standard web page language XHTML and HTML5, students will be instructed on creating and maintaining a simple website. After the foundation language of XHTML as well as HTML5 has been established, the aid of an Internet editor – Dreamweaver or Aptana – will be introduced. To further enhance the web sites, a second language, Java Script, will be included. Finally, Web site design and layout techniques as well as basic search engine analysis will be added to enhance the students practical design skills.

792 Keyboarding I - Basic Digital Information Management (Grades 9-12) 1 credit

Keyboarding 1 is intended for all high school students, grades 9-12. This introductory course is designed to develop proper keyboarding form and function. Students learn and improve their touch-typing skills for personal and business use. Emphasis is placed on improving keyboarding speed and accuracy through proper form and procedures as well as developing skills in formatting various business documents in Microsoft Office (Word, Excel, and PowerPoint). Students will encounter proofreading, language arts, and decision-making activities and business simulations.

Technology utilized: Microsoft Office, Typing.com, Internet

793 Keyboarding II - Advanced Digital Information Management (Grades 10-12) 1 credit

Keyboarding 2 is intended for those students in grades 10-12 who have passed Keyboarding 1 and wish to enhance their skills in Microsoft Office and various desktop publishing programs. They will be introduced to more sophisticated formatting for such documents as newsletters, booklets, brochures, posters, flyers, tables, charts, presentations, transcription, and integrated reports, letters, and memos. This will be achieved through daily lessons, bulletin board displays, and various business simulations. Technology utilized: Microsoft Office + Publisher, Canva.com, Pinterest, Internet

Business Education

790 Accounting I - (Grades 10-12)

1 credit

Accounting 1 is offered to students in grades 10-12 and is intended for students who wish to understand the financial end of business. Students will learn recordkeeping for a proprietorship from the start of a company to the end of its fiscal year. Proper documentation, procedures, and reasons for all business transactions will be studied and practiced, culminating in a year-end simulation of a service business's first month of operation. This will include Accounts Receivable, Accounts Payable, checkbooks, and reports. Students will be prepared for basic record keeping employment, future study, or personal use. Technology utilized: Excel and QuickBooks accounting software (Intuit.com)

791 Accounting II - (Grades 10-12)

1 credit

Accounting 2 is offered to students in grades 11-12 who have passed Accounting 1 and seek to learn bookkeeping for a merchandising business with employees. Students will learn recordkeeping for a store from the start of a company to the end of its fiscal year. Proper documentation, procedures, and reasons for all business transactions will be studied and practiced, culminating in a year-end simulation of a merchandising business's first month of operation. This will include a study of Accounts Receivable, Accounts Payable, Payroll, inventory, and year-end reports as major components. Students will be prepared for advanced recordkeeping employment, future study, or personal use. Technology utilized: Excel and QuickBooks accounting software (Intuit.com)

794 Accounting III – (Grade 12)

1 credit

Accounting 3 is intended for students who wish to analyze the financial end of business. Students will learn creation and evaluation of business practices and procedures. Using Excel, proper documentation, procedures, and calculation for common business reports (Income Statements, Balance Sheets, etc.) will be studied and practiced, culminating in a year-end simulation of a business's last month of the fiscal year. Accounting 3 students will conduct their simulation in QuickBooks accounting software and will be able to add that marketable knowledge to their resume. Students will be prepared for advanced recordkeeping employment, future study, or personal use. Technology utilized: Excel and QuickBooks accounting software (Intuit.com)

795 Business and Marketing - (Grades 10-12)

1 credit

This course is designed to introduce students to the tools used in sales and marketing to attract and maintain customers. Emphasis is on hands-on activities involving the sports, entertainment, automotive, and recreation industries. Some of the concepts learned will be the importance of branding, promoting, selling, and supporting products to meet customer needs. Students will learn how sales and marketing work together to improve customer satisfaction and increase profits.

Technology Education

485 Drafting Technology I (Grades 9-12)

1 credit

Drafting is designed to accelerate student learning in order to keep pace with the expansion of subject matter in the drafting field. A broad foundation of the subject matter is stressed. Areas of study include career planning, lettering, measuring, sketching, use and care of instruments, projection, auxiliary views, sectional views, pictorial drawings, surface developments and computer-assisted drafting.

585 Drafting Technology II (Prerequisite: Drafting I) (Grades 10-12)

1 credit

Drafting II is designed to stimulate the student's thinking and problem-solving ability. Problems are arranged in a sequence according to level of difficulty. Areas of study include those of Drafting Technology I, plus assembly drawings, dimensioning, fasteners, technical illustration, and computer-aided design and drafting.

697 Pre-Engineering (Grades 10-12)

1 credit

A relationship exists between design and engineering. The critical thinking, problem solving, and decision-making of engineering first requires creative thinking and the use of technology to design innovative solutions.

380 Diversified Technologies - (Grade 9)

1 credit

The student will be exposed to a variety of technology experiences in the manufacturing and communication areas. The introduction of manufacturing systems will involve the students in the different aspects necessary to understand how the manufacturing process works in the development of new products. Knowledge about materials, processes, management, automation and business organization will be covered in the manufacturing portion. In communications, students will be involved in the use of current drafting technologies and how it relates to manufacturing and construction methods.

480 Power and Structure I - (Grades 10-12)

1 credit

Students will combine prior knowledge and experiences with new exposure to machine woodworking operations and methods. Students will be assigned projects with specific size and limitations. The student will be involved in the entire manufacturing process: research, design, drawing, planning, and construction of his/her own individualized project. With this approach, the student has a chance to progress at his/her own rate and to exercise his/her own desires. Students will be expected to pay for a portion of their total project prior to beginning of the project. The balance of payment for the project will be due upon completion and removal of the project from school property.

580 Power and Structure II - (Grades 11-12)**1 credit**

Course content will be the same as Wood Technology I, since these courses are taught in a combined class. The students at this level will be given more responsibilities and will be expected to perform at a higher level of proficiency. Students will combine prior knowledge and experiences with new exposure to machine woodworking operations and methods. The student will be involved in the entire manufacturing process: research, design, drawing, planning, and construction of his/her own individualized project. With this approach, the student has a chance to progress at his/her own rate and to exercise his/her own desires. Students will be expected to pay for a portion of their total project fee prior to the beginning of the project. The balance of payment for the total project will be due upon completion and removal of the project from school property.

680 Power and Structure III - (Grade 12)**1 credit**

Course content will be the same as Wood Technology II, since these courses are taught in a combined class. The students at this level will be given more responsibilities and will be expected to perform at a higher level of proficiency. Students will combine prior knowledge and experiences with new exposure to machine woodworking operations and methods. The student will be involved in the entire manufacturing process: research, design, drawing, planning, and construction of his/her own individualized project. With this approach, the student has a chance to progress at his/her own rate and to exercise his/her own desires. Students will be expected to pay for a portion of their total project fee prior to the beginning of the project. The balance of payment for the total project will be due upon completion and removal of the project from school property.

Family and Consumer Science Education

660 Culinary Arts I - (Grades 11-12)

1 credit

Culinary Arts is offered to advance student understanding in the areas of food choice and nutrition and meal planning; with a focus on food preparation and kitchen basics including kitchen tools, food safety and sanitation. Additionally, they will understand the relationship between geographic location and history of a region to the cuisine of various cultures; demonstrate competency in a variety of food preparation areas; and participate in hands-on food labs and unit projects which will reinforce concepts through application.

661 Culinary Arts II - (Grades 12)

1 credit

Culinary Arts II will advance students understanding in the areas of food choice and nutrition and meal planning; develop culinary knowledge and practical skills including safety and sanitation, knife skills, use of large and small equipment, analyze and execute various recipes using a myriad of food preparation techniques; use sensory evaluations to understand herbs and spices and their role in creating flavor profiles. Additionally, students will demonstrate competency in a variety of food preparation areas. Will participate in “hands-on” food labs and projects which will reinforce concepts through application

662 Baking & Pastry Arts - (Grade 12)

1 credit

This course is designed to provide students a foundation for the successful understanding and execution of baking recipes and techniques. It will build upon prior knowledge and serve as an inspiration for new ideas and challenges. Students will learn the basics of mixing, shaping and baking for several baked goods including quick breads, yeast breads, cakes, pastry doughs, mousses, sauces, glazes, cookies, candies and confections. Additionally, the opportunity to obtain the Serv Safe Food Handler certification will form the basis for safe food handling and give students an industry-wide certification

667 Theories of Leadership (Grades 11-12)

0.5 credit

Concurrent enrollment - can be taken for college credit

This course is designed to acquaint students with multiple theories and practices associated with effective leadership. In answering the question, “What is leadership?” It examines such theories as situational, participative, transformational, and servant leadership. Consideration is given to issues of followership and the many roles we play in life. The class also addresses those leadership and administrative skills and practices usually associated with effective professional management

666 Introduction to Human Nutrition (Grades 11-12)**0.5 credit****Concurrent enrollment - can be taken for college credit**

This course will cover an overview of the scientific principles of nutrition and their applications to humans throughout the lifecycle. Topics include classification and function of the six major nutrients, review of current nutrition standards, safety of the food supply, and nutrition misinformation. Students will gain a knowledge of the role of nutrition in promotion of a healthy lifestyle, disease prevention theories and guidelines, the six categories of nutrients with respect to function, recommended amounts, major food sources, guidelines for intake and digestive pathways; changes in dietary requirements across the lifespan and how to critically evaluate nutrition information in popular media.

Foreign Language Education

700 Spanish I (Grades 9-12)**1 credit**

Spanish I is an introduction of the Spanish language and Hispanic culture. Mastery of basic vocabulary and structures are acquired through example and actual use. Emphasis is on communicating in Spanish in real-life situations. All four language skills (listening, speaking, reading, and writing) are practiced. As the year progresses, Spanish is increasingly used as the language of instruction.

701 Spanish II - (Grades 10-12)**1 credit**

Spanish II continues Spanish I's objective of developing a basic grasp of the language for real-life circumstances. All four language skills are practiced. Most classroom communication will be in Spanish, with English used for occasional clarification. Emphasis remains on actual communication, along with vocabulary and further investigation of Hispanic culture.

702 Spanish III - (Grades 11-12)**1 credit**

The goal at this level is to further increase fluency in Spanish, using the "Target Language" as much as possible. Discussions and instruction will be almost exclusively in Spanish. All four language skills are practiced. Students will become more familiar with the culture of Spanish-speaking countries.

703, 704, 730 Spanish IV, Spanish V, Spanish VI - (Grade 12)**1 credit**

Students' functional level of fluency allows them to communicate almost entirely in Spanish. There will be a concentration on longer, more complex pieces of literature, songs, and video arts to practice language skills and deepen their understanding of Hispanic culture and history.

705 German I (Grades 9-12)**1 credit**

This course introduces the German speech sounds and vowel combinations. Sentence structure patterns are introduced in sequence through oral exercises and dialogues. Oral and written drills on vocabulary and basic speech patterns move in progression toward mastery of basic grammatical concepts. The emphasis in this course involves oral comprehension, speech, and basic writing skills of the target language. Culture is discussed on an ongoing basis—each chapter contains a culture section. Maps, posters, film strips, and any authentic German articles are used to enrich the learning environment.

706 German II - (Grades 10-12)**1 credit**

This course is a continuation of German I. More emphasis is placed on culture.

707 German III - (Grades 11-12)**1 credit**

German III is a continuation of materials from German II. Students are expected to increase proficiency in oral comprehension as well as the ability to speak the German language. Cultural information includes more information on German history, as well as short articles written by German authors. Information is given on different dialects spoken. Current events as they occur are related and discussed, i.e., the deployment of Pershing and cruise missiles in West Germany, German reunification, and economic reforms as they relate to the 90's.

708 German IV - (Grade 12)**1 credit**

This course is a continuation of German III. This entire course is taught in the target language. This includes the review at the beginning of the semester. Emphasis is placed on vocabulary expansion (including idiomatic expressions); historical personalities from the areas of politics, art, music, and sports; and contemporary individuals. Discussions compare and contrast various aspects of German/American life.

Other Electives

796 Future Educator Experience - (Grade 12) (recommended to have taken Psychology)

1 credit

The Future Educator course is offered to students entering grade 12 and is intended for high-achieving students who plan to attend college in order to become teachers. It consists of formal instruction from the course director one period per week at the high school. Remaining days of the week will require 2 hours of on-site classroom observation and work with a cooperating teacher at the elementary or middle schools. Placement will depend on the student's interests and plans as well as teachers willing to welcome the students to their classrooms. Students will compile a portfolio of learning experiences throughout the year. This portfolio will serve as a reference tool for college, and the experience will enhance the student's resume for a future career in education.

Dual Enrollment or Concurrent Enrollment Opportunities Grades 11-12

Dual Enrollment courses can be taken for college credit and CASH elective credits. They will appear on the high school transcript. University transcripts are provided from the colleges for students to use with their future academic institutions.

Dual Enrollment may be offered online through universities such as Penn West, Gannon or Liberty. These offerings may vary from semester to semester. There is generally a discounted cost for tuition and possible cost for textbooks, which is paid by the student. The contract and billing agreement is between the student and the university.

Concurrent Enrollment courses will be University of Pitt classes taught by CASH faculty. These courses will be for one CASH credit and three college credits.

- *Physics
- *Intro to Human Nutrition
- *Theories of Leadership
- *Website Design and Development
- *AP Chemistry
- *AP Bio

CRAWFORD COUNTY CAREER AND TECHNICAL SCHOOL OFFERINGS

Aspiring Educator (3 Years)

This program is geared toward students interested in becoming educators, preparing them for a career at the elementary and/or secondary school building levels. This course facilitates teaching candidates the ability to apply leadership, ethics, communication, and decision-making skills from various settings to contemporary challenges in educational situations. It also serves as the platform that initiates development by planning lessons based on national and state teaching standards and the program task list outlined by the Pennsylvania Department of Education.

Auto Collision Technology (3 Years)

This course includes instruction in the removal of dents, repair of rusted or damaged panels, Replacement and installation of parts and accessories, preparation and refinishing of spot repairs, complete auto painting and refinishing, straightening of frame structures.

Automotive Technology (3 Years)

This NATEF certified course provides instruction in the diagnosis, repair and adjustment of problems related to gasoline powered motor vehicles.

The Automotive Technician must determine what tools and parts are necessary to repair the car, estimate the cost of repair, and discuss the entire situation with the customer before finally making the appropriate repairs.

Carpentry (3 Years)

Carpenters make up one of the largest groups of skilled workers in the nation's labor force. They deal with the construction of buildings, using assorted materials such as metal, wood, stone, brick, glass, or concrete. Instruction is provided in the basic skills of carpentry, masonry, and a variety of activities associated with building construction, such as cost estimating, cutting, fitting, fastening, and finishing various materials. Students will use a variety of hand powered tools, learn print reading, follow technical specifications, and acquire knowledge concerning the physical properties of materials.

Computer Information Sciences (3 Years)

The Computer and Information Sciences program is designed to prepare students to repair & maintain computers and to achieve their CompTIA IT Fundamentals and CompTIA A+ certifications. These nationally known certifications are vendor neutral and are recognized by major companies worldwide. Their focus is on PC hardware and software repair, and networking. The students will gain knowledge of how to perform tasks such as installations, configuration, diagnostics, and preventative maintenance of a PC. Students learn the skills through hands-on activities, research projects, and textbook assignments. The network portion focuses on the features and functions of networking components, and installing, configuring and troubleshooting basic networking hardware and services.

Cooperative Education- Co-Op (Grade 12)

Cooperative Education (Co-op) is a method of training whereby the student combines classroom instruction with on-the-job training in a career area of his/her choice. It is a unique plan of education designed to integrate classroom study with planned, supervised, practical work experience. "Learning by doing" is the key to Cooperative Education. The program helps students relate schoolwork to actual "real world" employment.

Cosmetology (3 Years)

Cosmetology graduates are creative, focused, and ambitious. They enjoy working with their hands and value the aesthetic. In this program, students will learn how to clean, shape, style, color, and texturize hair, as well as care for skin and nails. But, beyond these artistic skills, they'll also learn the structure and composition of specific human anatomy and basic business principles and practices.

Culinary Arts and Restaurant Management (3 Years)

The Culinary Arts & Restaurant Management course provides theory and practice for food preparation and service required for success in the food service industry. Students learn how to operate and care for kitchen equipment, prepare and serve food, plan menus and a variety of skills required to operate and maintain a restaurant. Students practice their serving techniques at the on-site restaurant. Participants have the opportunity to achieve multiple national certifications.

Diesel Technology (3 Years)

The Diesel Technology course prepares students for the future by including the study of small engine technology along with the training in diesel service and maintenance. The course offers training in all areas of mechanics including diagnosis, overhaul and maintenance for automotive, agricultural, trucking and recreational vehicles. Students are able to train, test and qualify for the PA State Inspection License. All this adds up to an exciting and valuable training opportunity for the future mechanical technician.

Diversified Occupations - CO-OP (Grade 12)

This is a unique educational program designed to integrate classroom study in employability and life skills with planned, supervised and practical work experience. Students are supervised by the CTC Co-Op coordinator. Students must work at least 15 hours during the work week and can earn up to 4 credits.

Drafting and Design Technology (3 Years)

Drafting & Design provides students with a thorough technical knowledge of the principle methods by which CADD operators, draftspersons, technicians, and designers communicate with those who fabricate material. The course stresses the relationship between theory and practice. The student learns application of principles that provide entry level skills and "hands-on" experiences on the drafting board and CADD. The course concentrates on communication, leadership skills, positive work attitude, self-discipline and safety. All this aids the students' transition to the world of work or college. Articulation agreements with area colleges provide proficient students with advanced placement credits.

Electrical Occupations (3 Years)

Electrical equipment is increasingly important in our high-tech society. There are numerous opportunities for individuals who would like to enter the electrical field. Electrical equipment technicians install, maintain, and repair the equipment found in factories, business offices, hospitals, schools, stores, and homes. The Electrical Occupations course will provide an opportunity for students to obtain an understanding of the many careers that involve electricity and electrical theory.

Electronic Technology (3 Years)

Trained personnel in the Electronics Industry design, develop, fabricate, install and service electronic equipment. The classroom, along with related laboratory experiences, form a trained foundation for personnel in Electronics. Electronic personnel usually specialize in one type of equipment or one area of industry. Some of these specialties are: Radio and TV broadcasting, aviation navigation & instrumentation, telephone equipment, medical monitoring and measurement, industrial process control & automation, communications equipment, computers and radar.

Health Occupations (3 Years)

The Health Occupations Program is designed to offer the foundation of knowledge and skills necessary for a career in the health field. A combination of classroom instruction and hands-on application prepares students for employment in this field. Students also learn clinical skills that are applicable toward the state-tested nurse aide exam. In addition, they receive education on the characteristics and expectations of a health care worker.

HVAC (3 Years)

The Heating, Ventilation, Air Conditioning (HVAC) Technology program will prepare students to apply technical knowledge and skills to repair, install, service and maintain the operating condition of heating, air conditioning, and refrigeration systems. The program will have a solid educational base on which to build a post-secondary degree or advanced certifications

Precision Machining (3 Years)

Precision Machinists are highly skilled workers who provide tools, molds and special guiding and holding devices that are used to mass-produce a variety of metal and plastic parts. Machinists set up and operate all types of basic and advanced machine tools using precision measuring instruments. Through our program, students gain a basic understanding of machine tools, measuring instruments, metals and blueprint reading to prepare them for entry level positions in manufacturing. Their desire for continuing education and willingness to learn puts them at a distinct advantage in this rapidly evolving industry.

Sports Medicine (3 Years)

The purpose of the Sports Medicine – Rehabilitative Sciences program is to prepare students to assist in rehabilitation services under the supervision of physical therapists, occupational therapists, speech/language pathologists, nutritionists, sports medicine professionals and other therapeutic professionals, and to perform routine functions in support of rehabilitation

Veterinary Sciences (3 Years)

The Veterinary technology program will prepare individuals, under the supervision of veterinarians, laboratory animal specialists, and zoological professionals, to provide patient management, care, clinical procedure assistance, and owner communication. Students will receive training to enter entry level positions, as well as a solid educational base on which to build a post-secondary degree.

Welding (3 Years)

Today's Welders must be able to do many kinds of welding. Students in the welding program gain a solid background in the theory and "hands-on" experience which meet today's employers' needs. Students learn through a competency based program which includes theory and blueprint reading. Safety is stressed in all areas of welding. Fabrication skills are experienced by completion of projects and related school work-orders.



CSD GRADUATION PATHWAYS

PATHWAYS TO GRADUATION

Act 158 of 2018 prescribed multiple pathways for students to meet Pennsylvania’s assessment requirement for graduation. The state released the criteria for alternate assessments in spring 2020. These requirements affect the **Class of 2023** and beyond. You must meet the criteria of one of the following pathways to achieve a diploma.

PATHWAY 1: KEYSTONE PROFICIENCY

Reach “Proficient” or “Advanced” on each Keystone Exam

PATHWAY 2: KEYSTONE COMPOSITE

Students must earn “**Proficient**” or “**Advanced**” on at least one Keystone Exam & earn at least a “**Basic**” score on the other two Keystone Exams & have a composite score of: **4452**

KEYSTONE EXAM CUT SCORES				
Content Area	Below Basic	Basic	Proficient	Advanced
Algebra I	1200-1438	1439-1499	1500-1545	1546-1800
Biology	1200-1459	1460-1499	1500-1548	1549-1800
Literature	1200- 1443	1444-1499	1500-1583	1584-1800

4452

PATHWAY 3: ALTERNATE ASSESSMENT

Students will meet local requirements for academic content covered by the Keystone Exams for all subjects where they did not earn proficiency on the Keystone exam (Algebra, Biology, Literature).

AND ONE OF THE FOLLOWING

Attain an established score on an approved alternate assessment or complete one of the last three bulleted items.

Approved alternate assessments are:

- **Advanced Placement Exam** - 3 or higher
- **PSAT**—970
- **SAT**—1010
- **ACT**—21
- **ASVAB**—minimum score required to gain admittance to a branch of the armed services in the year the student graduates
- **Successfully complete a dual enrollment course**
in an academic content area associated with each Keystone Exam in which the student did not achieve at least proficiency
- **Successfully complete a pre-apprenticeship program.** (This must be related to career choice, registered and approved)
- **Be accepted in an accredited 4-year, nonprofit institution of higher education** and evidence of the ability to enroll in college level coursework.

PATHWAY 4: EVIDENCE-BASED (THREE PIECES OF EVIDENCE REQUIRED)

Students will meet local requirements for academic content covered by the Keystone Exams for all subjects where they did not meet proficiency on the Keystone Exam (Algebra, Biology, Literature).

AT LEAST ONE OF THE FOLLOWING (OR MORE)

<u>Attainment of an established score on an alternate assessment:</u> • SAT Subject Test: 630 • AP: 3-5 related to student career choice	OR	<u>Acceptance to a 4-year accredited nonprofit institution of higher education</u> • Acceptance Letter • Placement Tests • College Registration • Local Profile of HS GPA	OR	<u>Attainment of an industry-recognized credential</u> • Documentation that verifies attainment as defined by the Office of Elem/Sec Education	OR	<u>Successful completion of dual enrollment or post-secondary course</u> • Credit-bearing • Aligned to Keystones
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AND UP TO TWO OF THE FOLLOWING

<u>Service Learning Project Completion</u> • Must include project learning goals, project activities, and the projects contribution to the community. • Supervised and assessed by an adult; completion is verified in writing by adult supervisor • Sufficient duration and intensity to address identified community needs and meet specified project learning goals	AND OR	<u>“Proficient” or “Advanced” on a Keystone Exam</u> • Scaled scored of <u>1500</u> or higher on one Keystone Exam	AND OR	<u>Letter Guaranteeing Full Time Employment</u>
AND OR	<u>Internship or cooperative education program</u> • Industry-based learning Indicator Guidance: Work-based learning experiences	AND OR	<u>Compliance with the National College Athletic Association’s (NCAA) core courses for college bound student athletes</u> • Minimum GPS requirements (2.0) in approved NCAA core courses	

PATHWAY 5: CAREER & TECHNICAL EDUCATION

Students will meet local requirements for academic content covered by the Keystone Exams for all subjects where they did not earn proficiency on the Keystone Exam	AND	Either attain an industry-based competency certification related to the career and technical education (CTE) concentrator’s program of study.	OR	Demonstrate a high likelihood of success on an approved industry-based competency assessment or readiness for continued meaningful engagement in the CTE concentrator’s program of study.
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For additional information contact your School Counselor or go to:

<https://www.education.pa.gov/K-12/Assessment%20and%20Accountability/GraduationRequirements/Act158/Pages/Requirements.aspx>