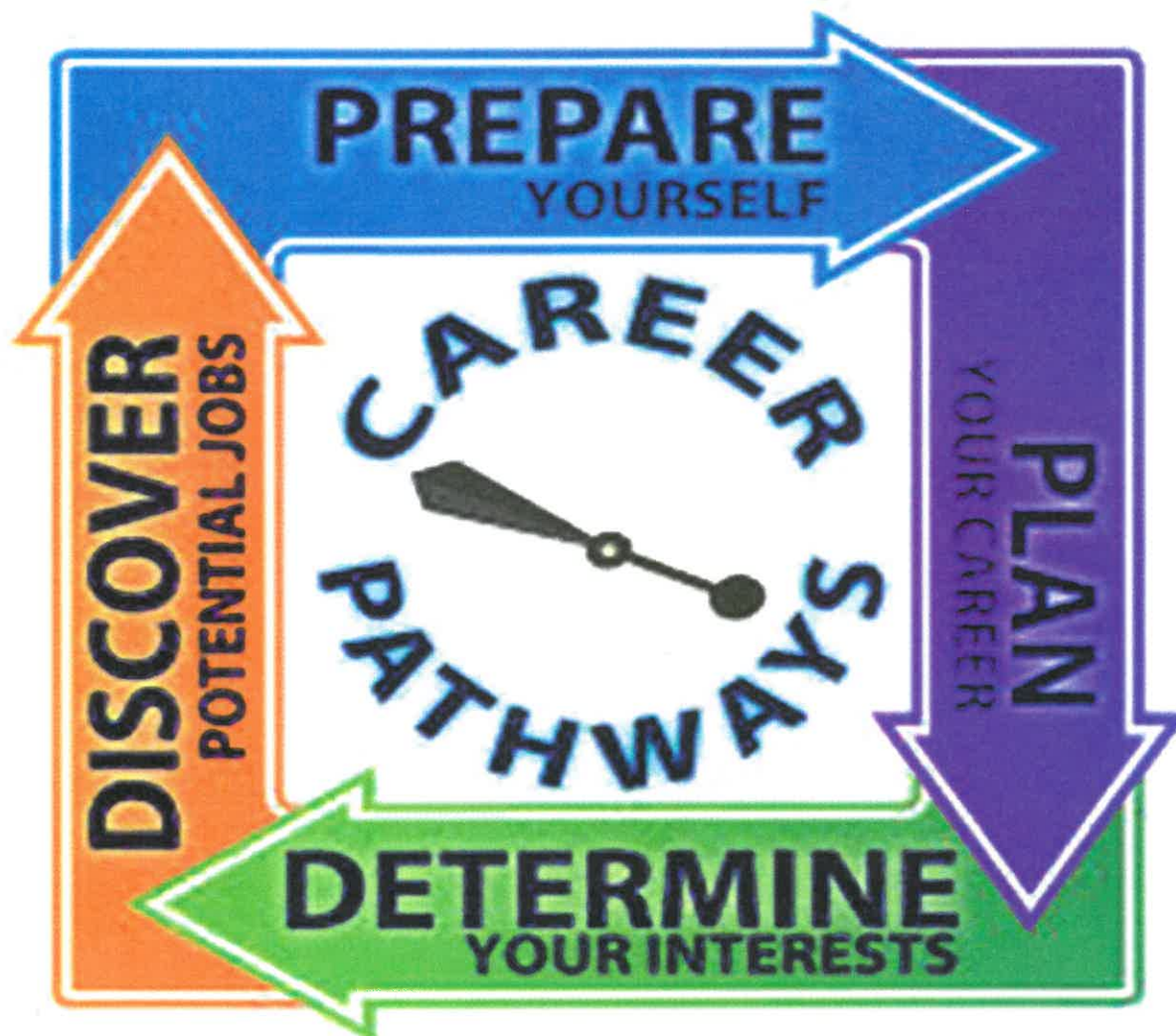


WELLSBORO AREA HIGH SCHOOL



CURRICULUM PLANNING GUIDE 2019-2020

Your Guide for Career Planning and Course Selection

PATHWAYS TO SUCCESS
WELLSBORO AREA SCHOOL DISTRICT

K - 4
Career Awareness



5 - 8
Career Exploration



PATHWAYS CHOICE
Arts and Communications
Business, Finance, and Information Technology
Engineering Industrial Technology
Human Services
Science and Health



Wellsboro Area High School
9-12
Follow Pathway for Course Selection

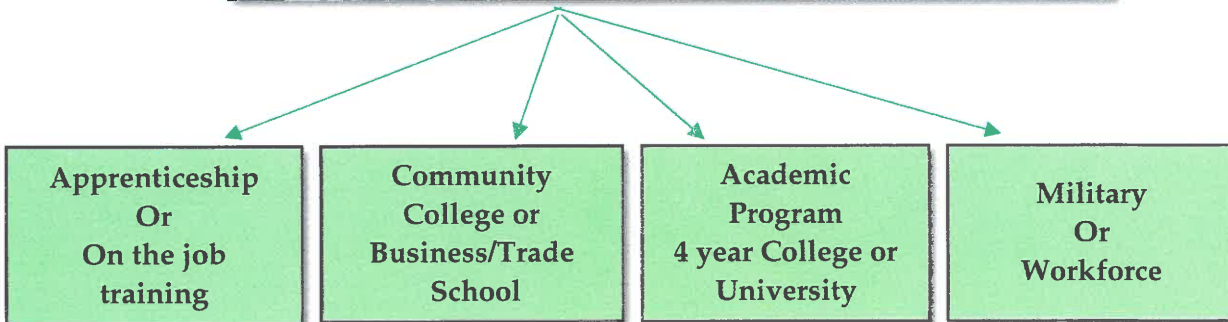


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What are Career Pathways?

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 chosen Pathway focuses a student's elective courses toward preparing for a specific goal area.

Why should I choose a career pathway?

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

How do I choose a career pathway?

- You will research various career fields in middle school and designated career development activities such as Futures I in grade 9.
- Your counselors, parents and teachers can assist you with this choice.
- You can complete the self-assessment in the Career Planning Guide

Will there be any change in my major academic studies?

No, you will still take all required core courses at AP, Honors, Academic and Applied levels. You will still follow the graduation requirements listed on page 25.

Self-Assessment – Who am I?

What do you want to be when you grow up? There are many adults who still don't know the answer to this question. How can they expect you to know?

One of the best ways to explore careers and get pointed in the right direction is to take an assessment test. These can measure things such as:

• *Interests* • *Skills* • *Values* • *Personality*

The nice thing about these is that there are no wrong answers. Your likes and dislikes are very important in career planning. They will supply you with ideas about the types of jobs that might be a "best fit" for you. Since these assessments are only part of the entire career puzzle, the results might not be exactly what you expect. Use these results and other experiences to broaden your search and explore careers that you might not have otherwise considered.

The assessment that follows is based on the Holland Interest Inventory. At the end of the assessment you will have an interest profile that matches different career areas. Once you have completed and scored your results, you will get a primary and secondary pathway option for your future planning.

Connecting Careers, Curriculum & Character Education

Wellsboro Area High School is committed to the integration of “Character” into the curriculum. Every department and pathway will promote the social, emotional, and ethical traits that will lead to the development of a students’ character. Service Learning opportunities will promote students’ character education through experiential learning, thus preparing students to become lifelong learners and active, productive members of the communities and society in which they live. The core character traits that will guide the Pathways to STING program are defined as follows:

SPEAK APPROPRIATELY:

- Say nice things to others
- Speak respectfully

THINK POSITIVELY:

- If at first I don’t succeed try again
- You can do it

INSPIRE OTHERS:

- Step up
- Speak up

NOTICE ACTIONS:

- Encourage others

GO HORNETS:

- School and community pride

HOLLAND TYPES AND PATHWAYS MATCHES

STEP ONE: In each group, ✓ check the items that describe you. Then, count up the number of check marks and fill in the total. Be as honest as you can. Remember, there are no wrong answers.

R

Are You?		Can You?		Like To?	
<input type="checkbox"/>	Practical	<input type="checkbox"/>	Fix mechanical things	<input type="checkbox"/>	Tinker with mechanics
<input type="checkbox"/>	Athletic	<input type="checkbox"/>	Solve mechanical problems	<input type="checkbox"/>	Work outdoors
<input type="checkbox"/>	Straightforward	<input type="checkbox"/>	Pitch a tent	<input type="checkbox"/>	Be physically active
<input type="checkbox"/>	Mechanically inclined	<input type="checkbox"/>	Play a sport	<input type="checkbox"/>	Use your hands
<input type="checkbox"/>	A nature lover	<input type="checkbox"/>	Read a blueprint	<input type="checkbox"/>	Build things
<input type="checkbox"/>		<input type="checkbox"/>	Work on cars	<input type="checkbox"/>	Operate tools & machinery

R = REALISTIC

R Total =

Realistic people like to take a concrete approach to problem solving rather than rely on abstract theory. They generally show an interest in activities that require motor coordination, skill and physical strength.

Pathways related to this type:

- Engineering and Industrial Technology

Are You?		Can You?		Like To?	
	Creative		Sketch, draw, paint		Attend concerts, theater, art exhibits
	Intuitive		Play a musical instrument		Read fiction, plays, poetry
	Imaginative		Write stories, poetry, music		Work independently
	Observant		Do complex calculations		Work on crafts
	Innovative		Design fashions or interiors		Take photographs
	An individualist		Sing, act, dance		Express yourself creatively

A = ARTISTIC

- Science and Health
- Business, Finance and Information Technology

A Total =

Are You?		Can You?		Like To?	
	Inquisitive		Think abstractly		Explore ideas
	Analytical		Solve math problems		Use computers
	Scientific		Understand physical theories		Work independently
	Observant		Do complex calculations		Perform lab experiments
	Precise		Use a microscope		Read scientific and technical magazines
			Analyze data		

I = INVESTIGATE

I Total =

Investigative people prefer to think, rather than act, to organize and understand rather than persuade. They tend to be good at math and science.

Pathways related to this type:

- Science and Health
- Engineering and Industrial Technology
- Business, Finance and Information Technology

Artistic people like to work on unstructured situations where they can use their creativity. They enjoy performing (theater and music) and the visual arts.

Pathways related to this type:

- Arts and Communications
- Human Services

Are You?		Can You?		Like To?	
	Friendly		Teach/train others		Work in groups
	Helpful		Express yourself clearly		Help people with problems
	Idealistic		Lead a group discussion		Participate in meetings
	Insightful		Moderate disputes		Do volunteer service
	Outgoing		Plan and supervise an activity		Work with young people
	Understanding		Cooperate well with others		Play team sports

S = SOCIAL

S Total =

Social people like to work with other people and seem to satisfy their need in teaching, counseling or caring for other people. They are often good public speakers with helpful, empathetic personalities.

Pathways related to this type:

- Human Services
- Science and Health
- Business, Finance and Information Technology

Are You?		Can You?		Like To?	
	Self-Confident		Initiate projects		Make decisions affecting others
	Assertive		Convince people to do things your way		Be elected to office
	Sociable		Sell things or promote ideas		Win a leadership sales award
	Persuasive		Give talks or speeches		Start your own political campaign
	Enthusiastic		Arrange activities and events		Meet important people
	Energetic		Lead a group		

E = ENTERPRISING

E Total =

Enterprising people are verbally skilled and enjoy influencing and persuading others. They like to lead and tend to be assertive and enthusiastic.

Pathways related to this type:

- Business, Finance and Information Technology
- Human Services

Are You?		Can You?		Like To?	
	Well groomed		Work well within a system		Follow clearly defined procedures
	Accurate		Do a lot of paperwork in a short time		Use data processing equipment
	Numerically inclined		Keep accurate records		Work with numbers
	Methodical		Use a computer terminal		Type or take shorthand
	Conscientious		Write an effective business letter		Be responsible for details
	Efficient				

C = CONVENTIONAL

C Total =

Conventional people don't mind rules and regulations and demonstrate self-control. They prefer structure and order in their work, are highly organized and generally place value on prestige and status.

Pathways related to this type:

- Business, Finance and Information Technology
- Human Services
- Arts and Communications

Step Two: Using your totals, identify the three letters that have the *highest scores*. Record the letter and number of checks in the box below:

My Interests Codes Are:

1.	2.	3.
#	#	#

Step Three: Now we will match your Holland Interest Type with Career Pathways. In the columns below, circle your three interest code letters wherever they appear.

Interests Codes:

A C S E
R I S E C
R I
S A E C
R I S

Pathway:

Arts and Communications (AC)
Business, Finance and Information Technology (BFIT)
Engineering and Industrial Technology (EIT)
Human Services (HS)
Science and Health (SH)

Step Four: Count the number of circles in each Pathway to determine your Primary and Secondary Pathways.

Primary Pathway _____ (most number of circles)

Secondary Pathway _____ (second most number of circles)

In the case of a tie, go back and review the assessment for more indicating factors or contact your counselor for assistance.

Note: This tool, as well as a series of other types, will be used to assist students and parents in the selection process. As always, this is an ongoing process.



ARTS AND COMMUNICATIONS (AC)

Designed to cultivate students' awareness, interpretation, application and production of visual, verbal and written work.

Cluster Areas:

- Performing Arts (PA)
- Visual Arts (VA)
- Publishing Arts (PU)



BUSINESS, FINANCE AND INFORMATION TECHNOLOGY (BFIT)

Designed to prepare students for careers in the world of business, finance and information services.

Cluster Areas:

- Marketing, Sales and Service (MS)
- Finance (F)
- Business Management (BM)



ENGINEERING AND INDUSTRIAL TECHNOLOGY (EIT)

Designed to cultivate students' interests, awareness and application to areas related to technologies necessary to design, develop, install or maintain physical systems.

Cluster Areas:

- Construction and Architecture (CA)
- Manufacturing (M)
- Engineering and Engineering Technology (ET)
- Transportation, Distribution and Logistics (TDL)



HUMAN SERVICES (HS)

Designed to cultivate students' interests, skills and experience for employment in careers related to familiar and human needs.

Cluster Areas:

- Counseling and Personal Care (CPC)
- Education (E)
- Law, Public Safety and Government (PU)
- Hospitality and Tourism (HT)



SCIENCE AND HEALTH (SH)

Designed to cultivate students' interests in the life, physical and behavioral sciences. In addition, the planning, managing and providing of therapeutic services, diagnostic services, health information and biochemistry research development.

Cluster Areas:

- Health Science (HS)
- Agriculture, Food and Natural Resources (AFN)
- Science, Technology and Math (STM)



ARTS AND COMMUNICATIONS (AC) PATHWAY

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

PATHWAY CLUSTER AREAS

◆ Performing Arts (PA) ◆ Visual Arts (VA) ◆ Publishing Arts (PU)

Are you interested in...	Can you...	Do you enjoy...
<ul style="list-style-type: none"> • News Reporting and Writing • Interviewing and Reviewing 	<ul style="list-style-type: none"> • Sing • Play an Instrument 	<ul style="list-style-type: none"> • Writing • Making Videos

<ul style="list-style-type: none"> • Multi-Media Productions • Acting • Radio, TV, Film, Video • Performing in a Band, Chorus • Attending Concerts • Drawing, Painting/Creative • Artwork 	<ul style="list-style-type: none"> • Be Creative • Act • Articulate Clearly • Write and Conduct Interviews • Meet Deadlines • Sell • Draw • Sculpture 	<ul style="list-style-type: none"> • Working with Film Props • Seeking Creative Ideas • Working with Sound Effects • Performing in Front of a Live Audience • Work with Computers
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If you answered “yes” to most of these questions, you might consider a future in one of the sample occupations listed below based on their level of post-secondary training.

SAMPLE CAREERS

Entry (OJT)	Technical/Skilled (1-3 yrs)	Professional (4 or +yrs)
<ul style="list-style-type: none"> • Model (PA) • Radio Operator (PA) • Stage Hand (PA) • Stunt Performer (PA) • Announcers (PA) • Dancer (PA) • Film Loader (VA) • Photographer (VA) • Floral Designer (VA) • Florist (VA) • Sound Technician (VA) • TV, Video & Motion Picture Operator (VA) • Desktop Publisher (PU) • Circulation (PU) • Copy Person (PU) • Newsroom Worker (PU) 	<ul style="list-style-type: none"> • Actor (PA) • Book Illustrator (PA) • Choreographer (PA) • Dancer (PA) • Disc Jockey (PA) • Musician (PA) • Talent Agent (PA) • Animator (VA) • Artist (VA) • Broadcast Technician (VA) • Fashion Designer (VA) • Jeweler (VA) • Make-up Artist (VA) • Recording Engineer (VA) • Video Manager (VA) • Computer Graphic Artist (VA, PA) • Web Designer (PU) • Desktop Publisher (PU) 	<ul style="list-style-type: none"> • Art or Music Teacher (PA) • Cinematographer (PA) • Composer (PA) • Film Editor (PA) • Multi-Media Artist (PA) • Music Critic (PA) • Music Director (PA) • News Broadcaster (PA) • Producer & Director (PA) • Editor (PA) • Curator (VA) • Advertising Creator (VA) • Art Director (VA) • Interior Designer (VA) • Fashion Designer (VA) • Industrial Designer (VA) • Copy Writer (PU) • News Writer (PU) • Telecommunications (PU) • Writer (PU)

ARTS AND COMMUNICATIONS (AC) PATHWAY ELECTIVES

Please Note: Before selecting any elective, be sure all prerequisites have been met.

Check the course description pages of this booklet for elective requirements.

9 th	10 th	11 th	12 th
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Intro to Art Music Theory 9 Music Band Chorus Spanish 1 French 1 Freshman Seminar	Yearbook Drawing and Painting Spanish 2 French 2 Band Chorus	Adv. Drawing and Painting Photography Color and Design Band Chorus Oil Painting Journalism Yearbook School to Work Drafting Spanish 3 French 3 Future Seminar	Adv. Drawing and Painting Photography Color and Design Band Chorus Oil Painting Journalism Yearbook School to Work Drafting Spanish 3 French 3 Dual Enrollment Spanish
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Career Development Transitional Opportunities Pathway Cluster Areas

◆ Performing Arts (PA) ◆ Visual Arts (VA) ◆ Publishing Arts (PU)

9 th	10 th	11 th	12 th
Career Panels (All) Career Expo (All) Guest Speakers in elective courses (All) Field Trips (All) Band/Jazz Band (PA) Chorus/Choraliers (PA) Plays/Musicals (PA) PA State Men's/Women's Hamilton-Gibson (PA) Deane Center Youth Symphony (PA) Summer Music Camps (PA) Honors ensembles (PMEA, ACDA, collegiate) (PA) Private music lessons (PA)	College Panels (All) Career Expo (All) Guest Speakers in elective courses (All) Field Trips (All) Band/Jazz Band (PA) Chorus (PA) Plays/Musicals (PA) PA State Men's/Women's Honor Choir (PA) District/Regional Chorus (PA) Hamilton-Gibson (PA) Deane Center Youth Symphony (PA) Summer Music Camps (PA) Honors ensembles (PMEA, ACDA, collegiate) (PA) Private music lessons (PA) Tioga Publishing (PU)	Shadow Day (All) Post-Secondary Fair (All) ASVAB Test (All) Career Expo (All) Dual Enrollment (All) Guest Speakers in elective courses (All) Field Trips (All) College Visits (All) Yearbook (PU) Band/Jazz Band (PA) Chorus/Choraliers (PA) Plays/Musicals (PA) PA State Men's/Women's Honor Choir (PA) District/Regional Chorus (PA) Hamilton-Gibson (PA) Deane Center Youth Symphony (PA) Tioga Publishing (PU) Summer Music Camps (PA) Honors ensembles (PMEA, ACDA, collegiate) (PA) Private music lessons (PA)	Senior Interview Workshop (All) Career Action Plan Presentation (All) Resume Workshop (All) Career Expo (All) Dual Enrollment (All) Internships (All) Work Experience (All) Guest Speakers in elective courses (All) Field Trips (All) College Visits (All) Yearbook (PU) Band/Jazz Band (PA) Chorus/Choraliers (PA) Plays/Musicals (PA) PA State Men's/Women's Honor Choir (PA) District/Regional Chorus (PA) Hamilton-Gibson (PA) Deane Center Youth Symphony (PA) Summer Music Camps (PA) Honors ensembles (PMEA, ACDA, collegiate) (PA) Private music lessons (PA) Tioga Publishing (PU)



BUSINESS, FINANCE AND INFORMATION TECHNOLOGY (BFIT) PATHWAY

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

PATHWAY CLUSTER AREAS

◆ Marketing and Sales (MS) ◆ Finance (F)

◆ Information Technology (IT) ◆ Business Management (BM)

Are you interested in...	Can you...	Do you enjoy...
• A business environment	• Work easily with others	• Meeting with groups

<ul style="list-style-type: none"> • Office management • Sales • Computers and technology • Presentations to groups • Telecommunications • Advertising • Different work sites • Insurance • Record keeping 	<ul style="list-style-type: none"> • Organize your time efficiently • Work with statistics • Use computers and other technology • Pay attention to details • Solve problems • Work independently • Show initiative • Work on a team 	<ul style="list-style-type: none"> • Making budgets • Organizing a project • Planning an event • Working with technology • Selling products and services • Processing numbers and figures • Preparing financial reports • Following directions • Learning new software programs
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If you answered “yes” to most of these questions, you might consider a future in one of the sample occupations listed below based on their level of post-secondary training.

SAMPLE CAREERS

Entry (OJT)	Technical/Skilled (1-3 yrs)	Professional (4 or +yrs)
<ul style="list-style-type: none"> • Customer Service Representative (MS) • Shipping and Receiving Clerk (MS) • Telemarketer (MS) • Advertising Sales Agent (MS) • Bank Teller (F) • Cashier (F) • Payroll Clerk (F) • Title Searcher (F) • Computer Operator (IT) • Accounts Payable Office Mgr (BM) • Administrative Assistant (BM) • Data Entry (BM) • Retail Sales Clerk (BM) • School Secretary (BM) • Account Executive (BM) 	<ul style="list-style-type: none"> • Computer Salesperson (MS) • Graphic Designer (MS) • Retail Tech (MS) • Bank Collection Officer (F) • Claims Adjuster (F) • Legal Secretary (F) • Tax Preparer (F) • Paralegal (F) • Computer Support Specialist (IT) • Software Engineer (IT) • Computer Programmer (IT) • Production Support Analyst (IT) • Desktop Publisher (IT & MS) • Medical Secretary (BM) • Real Estate Agent (BM & MS) • Restaurant Manager (BM & MS) • Sales Representative (BM & MS) 	<ul style="list-style-type: none"> • Marketing Manager (MS) • Certified Public Accountant (F) • Economist (F) • Financial Manager (F) • Securities Sales Representative (F) • E-Commerce Analyst (IT) • Systems Software Engineer (IT) • Systems Analyst (IT) • Hospital Administrator (BM) • Human Resources Manager (BM) • Chief Executive Officer (BM) • Manufacturing Sales Representative (BM & MS) • Business Analysts (BM) • Project Manager (BM) • Sports & Entertainment Agent (BM)

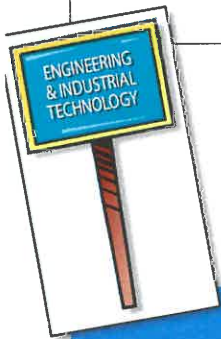
BUSINESS, FINANCE & INFORMATION TECHNOLOGY (BFIT) PATHWAY ELECTIVES

Please Note: Before selecting any elective, be sure all prerequisites have been met.
Check the course description pages of this booklet for elective requirements.

9 th	10 th	11 th	12 th
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Spanish 1 French 1 Freshman Seminar	Accounting 1 Spanish 2 French 2 Business Law	Accounting 2 Business Management Spanish 3 French 3 Financial Record Keeping Web Design School to Work Future Seminar	Spanish 4 French 4 Financial Record Keeping Web Design School to Work
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Career Development Transitional Opportunities Pathway Cluster Areas ◆ Marketing and Sales (MS) ◆ Finance (F) ◆ Information Technology (IT) ◆ Business Management (BM)			
9 th	10 th	11 th	12 th
Career Panels (All) Career Expo (All) Guest Speakers in elective courses (All) Field Trips (All) Business Side of Sports-Crosscutters, LL (All) FBLA (All)	College Panels (All) Career Expo (All) Guest Speakers in elective courses (All) Field Trips (All) PA Free Enterprise Week-Summer (BM, F, MS) Business Side of Sports-Crosscutters, LL (All) FBLA (All)	Job Shadow Day (All) Post-Secondary Fair (All) ASVAB Test (All) Career Expo (All) Dual Enrollment (All) Guest Speakers in elective courses (All) Field Trips (All) College Visits (All) PA Free Enterprise Week-Summer (BM, F, MS) Accounting Career Day-(F) Careers in Video Gaming (IT) Business Side of Sports-Crosscutters, LL (All) FBLA (All)	Resume Workshop (All) Career Expo (All) Dual Enrollment (All) Internships (All) Work Experience (All) Guest Speakers in elective courses (All) Field Trips (All) College Visits (All) Accounting Career Day- (F) Careers in Video Gaming (IT) Business Side of Sports-Crosscutters, LL(All) FBLA (All)



ENGINEERING AND INDUSTRIAL TECHNOLOGY (EIT) PATHWAY

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

PATHWAY CLUSTER AREAS

◆ Construction and Architecture (C) ◆ Manufacturing (M)

◆ Engineering and Engineering Technology (ET) ◆ Transportation, Distribution and Logistics (TDL)

Are you interested in...	Can you...	Do you enjoy...
<ul style="list-style-type: none"> Building and Construction Tools, Equipment and Materials Woodworking Math and Science Classes Fitness and Sports 	<ul style="list-style-type: none"> Apply science and math to real world Read and understand directions Solve problems of a complex nature 	<ul style="list-style-type: none"> Travel Working with your hands Designing/working with projects, models and prototypes Working in a lab setting

<ul style="list-style-type: none"> • Precision Work • Design and Architecture • Engineering • Computer Technology • Production Management • How things work 	<ul style="list-style-type: none"> • Understand directives and read maps • Organize reports and people • See a task through to completion • Use a computer 	<ul style="list-style-type: none"> • Working on a team • Building with your hands • Operating tools and equipment • Paying close attention to detail
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If you answered “yes” to most of these questions, you might consider a future in one of the sample occupations listed below based on their level of post-secondary training.

SAMPLE CAREERS

Entry (OJT)	Technical/Skilled (1-3 yrs)	Professional (4 or +yrs)
<ul style="list-style-type: none"> • Carpet Installer (C) • Drywall Worker (C) • Roofer (C) • Machine Operator (M) • Industrial Machine Mechanic (M) • Baggage Handler (TDL) • Dockworker (TDL) • Freight Handler (TDL) • Laborer (C, M, TDL) • Warehouse Worker (C, M, TDL) 	<ul style="list-style-type: none"> • Grader & Dozer Operator (C) • Electric Technician (M) • Metal Engineering Technician (M) • Supervisor (M) • Welder (M) • Civil Engineering Technician (ET) • Robotics Technician (ET) • CAD/CAM Technician (M & ET) • Laser Technicians (M & ET) • Auto Mechanic (TDL) • Air Traffic Controller (TDL) • Auto Body Repair (TDL) • Bus Driver (TDL) • Diesel Mechanic (TDL) • Dispatch (TDL) • Motorcycle Mechanic (TDL) • Taxi Driver (TDL) • Truck Driver (TDL) • Truck Terminal Manager (TDL) • Production & Operating Workers 	<ul style="list-style-type: none"> • Construction Manager (C) • Cost Estimators (C) • Industrial Production Manager (M) • Purchasing Agent (M) • Astronaut (ET) • Nuclear Engineer (ET) • Petroleum Engineer (ET) • NASA Scientist (ET) • Chemical Engineer (ET) • Computer Network Engineering (ET) • Technical Writer (ET) • Architect (ET & C) • Civil Engineering (ET & C) • Industrial Engineer (ET & M) • Mechanical Engineering (ET & M) • Aeronautical Engineer (ET & TDL) • Aerospace Engineer (ET & TDL) • Airline Pilot (ET & TDL) • Transportation Engineer (ET & TDL) • Navigator (TDL)
Apprenticeships		
<ul style="list-style-type: none"> • Brick Mason (C) • Carpenter (C) • Electrician (C) • HVAC (C) • Plumber (C) • Machinist (M) • Surveyor (TDL & ET) • Diesel Mechanic (TDL) 		

ENGINEERING & INDUSTRIAL TECHNOLOGY (EIT) PATHWAY ELECTIVES

Please Note: Before selecting any elective, be sure all prerequisites have been met.
Check the course description pages of this booklet for elective requirements.

9 th	10 th	11 th	12 th
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Intro to Art Woodworking Metal Computer Spanish 1 French 1 Freshman Seminar	Color and Design Electricity Woodworking Metal Photography Accounting 1 Chemistry Spanish 2 French 2	Drafting 1 Computer Programming Accounting 2 Business Management Chemistry School to Work Spanish 3 French 3 Future Seminar	Drafting 2 Web Design Computer Programming Business Management Physics School to Work Spanish 4 French 4
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Career Development Transitional Opportunities Pathway Cluster Areas

◆ Construction and Architecture (C) ◆ Manufacturing (M)

◆ Engineering and Engineering Technology (ET) ◆ Transportation, Distribution and Logistics (TDL)

9 th	10 th	11 th	12 th
Career Panels (All) Career Expo (All) Guest Speakers in elective courses (All) Field Trips (All) Apprenticeship Expo (C)	College Panels (All) Career Expo (All) Guest Speakers in elective courses (All) Field Trips (All) Apprenticeship Expo (C) Careers in Video Gaming (M) GIS Day (ET) Engineering Day (ET) Transportation Technology Career Day (TDL)	Shadow Day (All) Post-Secondary Fair (All) ASVAB Test (All) Career Expo (All) Dual Enrollment (All) Guest Speakers in elective courses (All) Field Trips (All) College Visits (All) Mentoring Program (C, ET) Apprenticeship Expo (C) Careers in Video Gaming (M) GIS Day (ET) Engineering Day (ET) Transportation Technology Career Day (TDL)	Resume Workshop (All) Career Expo (All) Dual Enrollment (All) Internships (All) Work Experience (All) Guest Speakers in elective courses (All) Field Trips (All) College Visits (All) Mentoring Program (C, ET) Apprenticeship Expo (C) Careers in Video Gaming (M) Engineering Day (ET) Transportation Technology Career Day (TDL)



HUMAN SERVICES (HS) PATHWAY

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

PATHWAY CLUSTER AREAS

◆ Counseling, Personal Care (CPC) ◆ Education (E)

◆ Law, Public Safety and Government (LPG) ◆ Hospitality and Tourism (HT)

Are you interested in...	Can you...	Do you enjoy...
<ul style="list-style-type: none"> • Working with People • Owning Your Own Business • Aging Adults • Child Development • Family & Social Services • Food Preparation • Teaching • Counseling 	<ul style="list-style-type: none"> • Organize Well • Plan and Direct Programs • Be Creative • Communicate Well • Assume Leadership • Work with a Team • Use Inter-personal Skills • Be Conscientious and Dependable • Plan Budgets 	<ul style="list-style-type: none"> • 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 • Searching for Answers to Human Problems

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

SAMPLE CAREERS

Entry (OJT)	Technical/Skilled (1-3 yrs)	Professional (4 or +yrs)
<ul style="list-style-type: none"> • Child Care Worker (CPC) • Cosmetics Representative (CPC) • Dry Cleaning Operator (CPC) • Home Health Aide (CPC) • Home Care Aide (CPC) • Library Assistant (E) • Teacher's Assistant (E) • Armed Services Career (LPG) • Bailiff (LPG) • Postal Services Worker (LPG) • Security Guard (LPG) • Utility Worker (LPG) • Aerobics Instructor (HT) • Travel Agent (HT) • Waitress (HT) • Baker (HT) 	<ul style="list-style-type: none"> • Barber (CPC) • Cosmetologist (CPC) • Fashion Designer (CPC) • Manicurist (CPC) • Massage Therapist (CPC) • Mortician (CPC) • Truck Driver (CPC) • Personal Trainer (CPC) • Teacher's Aide (E) • Armed Services Career (LPG) • Crime Lab Technician (LPG) • Fire Fighter (LPG) • Postmaster (LPG) • Bartender (HT) • Chauffeur (HT) • Flight Attendant (HT) • Meat Cutter (HT) • Chef (HT) 	<ul style="list-style-type: none"> • Funeral Director (CPC) • Marriage & Family Therapist (CPC) • Mental Health Counselor (CPC) • College Professor (E) • Principal (E) • Teacher (E) • City Manager (LPG) • Criminologist (LPG) • FBI Agent (LPG) • Lawyer (LPG) • Parole Officer (LPG) • Park Ranger (LPG) • Workforce Director (LPG) • Athletic Agent (HT) • Executive Chef (HT) • Family Planner (HT) • Food Services Manager (HT) • Hotel/Motel Management (HT)

HUMAN SERVICES (HS) PATHWAY ELECTIVES

Please Note: Before selecting any elective, be sure all prerequisites have been met.
Check the course description pages of this booklet for elective requirements.

9 th	10 th	11 th	12 th
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Psychology Sociology Spanish 1 French 1 Freshman Seminar	Psychology Sociology Justice Ed. Intro to Foods Spanish 2 French 2	Business Management Child Care Food and Nutrition Teacher's Aide AP Psych School to work Spanish 3 French 3 Future Seminar	Child Care Teacher's Aide AP Psych Dual Enrollment Psych School to work Spanish 4 French 4
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Career Development Transitional Opportunities Pathway Cluster Areas

◆ Counseling, Personal Care (CPC) ◆ Education (E)
◆ Law, Public Safety and Government (LPG) ◆ Hospitality and Tourism (HT)

9 th	10 th	11 th	12 th
Career Panels (All) Career Expo (All) Guest Speakers in elective courses (All) Field Trips (All) Youth and Government (LPG)	College Panels (All) Career Expo (All) Guest Speakers in elective courses (All) PA State Police Youth Week-Summer (LPG)	Shadow Day (All) Post-Secondary Fair (All) ASVAB Test (All) Career Expo (All) Dual Enrollment (All) Guest Speakers in elective courses (All) Field Trips (All) College Visits (All) Criminal Justice Day (LPG) Forensics Day (LPG)	Senior Interview Workshop (All) Career Action Plan Presentation (All) Resume Workshop (All) Career Expo (All) Dual Enrollment (All) Internships (All) Work Experience (All) Guest Speakers in elective courses (All) Field Trips (All) College Visits (All) Youth and Government (LPG) Criminal Justice Day (LPG) Forensics Day (LPG)

SCIENCE AND HEALTH (SH) PATHWAY

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

PATHWAY CLUSTER AREAS

◆ Health Science (HS) ◆ Agriculture, Food & Natural Resources (AFN)
◆ Science, Technology and Math (STM)



Are you interested in...	Can you...	Do you enjoy...
<ul style="list-style-type: none"> • Health Care Environment • Science and Medicine • Medical Research • Food Production • Environment & Conservation • Pharmacy • Physical Therapy • Sports/Fitness • Information Systems • Conservation • Radiology 	<ul style="list-style-type: none"> • Pay attention to detail • Use a computer and technology • Work in a lab setting or medical facility • Apply a 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 	<ul style="list-style-type: none"> • Diagnosing and caring for sick animals • Work outdoors with wildlife • Solving problems • 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 most of these questions, you might consider a future in one of the sample occupations listed below based on their level of post-secondary training.

SAMPLE CAREERS

Entry (OJT)	Technical/Skilled (1-3 yrs)	Professional (4 or +yrs)
<ul style="list-style-type: none"> • Hospital Worker (HS) • Patient Care Technician (HS) • Dialysis Technician (HS) • EEG Technician (HS) • Home Health Aide (HS) • Nurses Aide, Orderlies (HS) • Pharmacy Technicians (HS) • Physical Therapy Aide (HS) • Animal Caretaker (AFN) • Breeder (AFN) • Extension Service Worker (AFN) • Food Conservation Worker (AFN) • Wildlife Reserve Worker (AFN) • Hazardous Waste Technician (STM) • Optician (STM) • Data Entry (STM) • Surgical & Mapping Technicians (STM) 	<ul style="list-style-type: none"> • Certified Nursing Assistant (HS) • Dental Hygienist (HS) • Emergency Medical Tech. (HS) • Licensed Practical Nurse (HS) • *Medical Lab Technician (HS) • Personal Trainer (HS) • Radiological Technician (HS) • Respiratory Therapist (HS) • Dental Lab Technician (HS & STM) • Fish & Game Worker (AFN) • Forest Conversationalist (AFN) • GPS Technician (AFN) • Surveyor (AFN) • Veterinary Technician (AFN) • Nano Technician (STM) • Sound Engineer (STM) • *Biological Technicians (STM) • Chemical Technicians (STM) 	<ul style="list-style-type: none"> • Athletic Trainer (HS) • Speech/Language Pathologist (HS) • Dietician (HS) • Physician Assistant (HS) • Medical Examiner (HS) • Pharmacist (HS) • Physician (HS) • Physical Therapist (HS) • Registered Nurse (HS) • Agronomist (AFN) • Geologist (AFN) • Marine Biologist (AFN) • Soil Conversationalist (AFN) • Veterinarian (AFN) • Chemist (STM) • Environmental Scientist (STM) • Geneticist (STM) • Statistician (STM) • Zoologist (STM) • Nuclear Engineer (STM)

SCIENCE & HEALTH (SH) PATHWAY ELECTIVES

Please Note: Before selecting any elective, be sure all prerequisites have been met. Check the course description pages of this booklet for elective requirements.

9 th	10 th	11 th	12 th
Freshman Seminar	Micro Biology Natural Resource Management	Anatomy and Micro Biology Advanced Biology Chemistry	Advanced Biology Sports and Social Sciences Supervised AG experience School to work

		Personal Fitness Physical Science Animal Bio Plant Bio Environmental Bio Supervised AG experience School to work Future Seminar	
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Career Development Transitional Opportunities Pathway Cluster Areas ◆ Health Science (HS) ◆ Agriculture, Food & Natural Resources (AFN) ◆ Science, Technology and Math (STM)			
9 th	10 th	11 th	12 th
Career Panels (All) Career Expo (All) Guest Speakers in elective courses (All) Field Trips (All) zSpace logged hours (HS, STM)	College Panels (All) Career Expo (All) Guest Speakers in elective courses (All) Field Trips (All) Extreme Nursing (HS) Destination Imaging (HS, STM) Extreme Lab (HS, STM) Live Surgery (HS)	Shadow Day (All) Post-Secondary Fair (All) ASVAB Test (All) Career Expo (All) Dual Enrollment (All) Guest Speakers in elective courses (All) Field Trips (All) College Visits (All) Governors School-Sciences-Summer (All)	Resume Writing (All) Career Expo (All) Dual Enrollment (All) Internships (All) Work Experience (All) Guest Speakers in elective courses (All) Field Trips (All) College Visits (All)



WHICH OPTION SUITS YOU?

TYPE	DESCRIPTION
OJT (On-the-Job Training)	Employer-designed training established for the worker to gain the necessary work skills while he is getting paid on the job. Usually these will last weeks to months.
Diploma or Certificate Program	Short-term programs of 6 months to 1 year to gain specific skills to gain employment at the entry level. These can be found at technical schools, community colleges, junior colleges and even some universities.
Military Training	All branches of the military have skilled training for 3 years or more. Students can use their GI Bill to pay for college after their discharge or serve for 20 years until retirement with full benefits.

<p align="center">Apprenticeship Program</p>	<p>Industry-based program training workers on the job and in a classroom setting as well. Upon completion the worker will gain journeyman status in the specific industry (3-4 years in length). Apprentices are paid as they go to school.</p>
<p align="center">Bachelor’s Degree Programs</p>	<p>These are four-year degrees with a combination of general education course work and a specific major. They can be liberal arts colleges, private colleges, public colleges or universities.</p>
<p align="center">Graduate and Professional Degree Program</p>	<p>These are the post-graduate fields such as law, medicine and Ph.D. or other professional fields, typically 1 to 5 years beyond the bachelor’s degree.</p>

POLICIES AND PROCEDURES

College Athletic Eligibility

Student athletes who want to practice and play sports their freshman year in a National Collegiate Athletic Association (NCAA) Division I or Division II College must satisfy the initial requirements of the NCAA. The NCAA adopted new standards for core courses and academic eligibility. It is essential to discuss these requirements with your respective guidance counselor. The guidance office will have a comprehensive list of approved courses if you have interest in participating in NCAA athletics. For further details about the conditions for initial eligibility, refer to one of the following web sites: www.ncaa.org www.eligibilitycenter.org

COURSE OPTIONS

Independent Study: The Wellsboro Area School District policy regarding Independent Study is School Board policy #118. The policy states: The board will consider approval of a course of independent study for a properly qualified student as recommended by the Superintendent in order that such students may

- extend the learning experience outside the classroom
- develop judgment and self-reliance in the conduct of their learning experience
- use community resources in their educational program
- include a greater variety of learning experiences within the educational program
- explore an area of particular interest
- achieve personal goals
- learn to base conclusions on research

Audit: Students wishing to participate in band or chorus may attend class once every six days. Students will receive a participation grade; however, no credit will be received.

College Preparatory Curriculum (CP): The purpose of the College Preparatory Curriculum is two-fold. It is designed to provide students with exposure to various career pathways as well as prepare students for

entrance into a two (2) or four (4) year college or university. Since some colleges/universities have special entrance requirements, students need to consult with their guidance counselor and check the college catalogues closely. College preparatory students are required four (4) credits of English, four (4) math, four (4) social studies and four (4) science at the college preparatory level and two (2) credits in the same foreign language.

Career and Technical Education Curriculum: The Career and Technical Education Curriculum will prepare students for a smooth transition from our secondary CTE program into a postsecondary education program of study. Students are encouraged to take courses that challenge them and lead them on a pathway to postsecondary success. Technical sequences will meet the minimal technical core area competencies of articulated postsecondary institutions.

Career Pathways Curriculum: The purpose of this curriculum is to provide student exposure to and training for various careers. Within this curriculum are various career pathways along with the capability of taking core area courses at the college preparatory level. The various career pathways are: Business Education, Industrial Technology, Industrial Trades, and Home Economics.

Advanced Placement (AP): AP courses are offered in 11th and 12th grades and those wishing to take the Advanced Placement test must pay a fee, roughly \$93.00. Financial aid may be requested.

Dual Enrollment (DE): There will be two options for Dual Enrollment at WAHS this year. The first is one is the offering through Lackawanna College. The second option agreement we will be through Mansfield University. There are specific criteria that students need to meet in order to be eligible to take these courses. Dual Enrollment courses have a fee structure associated with them if the student desires college credit. If interested in any of these courses, please contact the guidance office.

Lackawanna College: credit offered at a reduced tuition rate, juniors and seniors may elect to take these courses, these courses will be scheduled into their high school schedule. Payment is required by the first day of school for students enrolling in these courses. If payment is not received within first 10 days of course student will be removed from course. Courses that are taken through Lackawanna College will be taught at Wellsboro Area High School by Wellsboro Area High School faculty that have been approved as adjunct faculty by Lackawanna College.

Course Code	Course Name	University
8251	Intro to Psychology	Lackawanna
8359	College Algebra	Lackawanna
8157	College Writing	Lackawanna
8548	Elementary Spanish	Lackawanna

Mansfield University: credit offered at a reduced tuition rate, juniors and seniors may elect to take these courses, these courses will be scheduled into their high school schedule. The student will be responsible for the balances of the tuition and fees and meeting university payment deadlines. Students must register through MU and their online system. An information sheet can be obtained through the guidance office. These courses are subject to change based on Mansfield University offerings.

Course Code	Course Name	University
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8971MU	Introduction to Art	Mansfield
8462MU	Personal Finance	Mansfield
8367MU	Introduction to Microcomputers	Mansfield
8158MU	Oral Communications	Mansfield
8263MU	Physical Geology	Mansfield
8223MU	History Since 1877	Mansfield
8360MU	Survey of Math Ideas	Mansfield
8346MU	Intro to Statistics	Mansfield
8243MU	Intro to Sociology	Mansfield
8775MU	Jobsite Safety	Mansfield

WELLSBORO ONLINE ACADEMY: The Wellsboro Online Academy (WOA) is committed to preparing the students at the Wellsboro Area School District for their future. WASD is committed to providing online programming to meet the needs of our students in a variety of capacities including the following:

- Full online schedule – students choosing this option are enrolled in all of their courses online; they are taught and maintain communication with their WASD online teachers through web technologies, but have the opportunity to schedule face to face meetings with their teachers at school.
- Supplemental online schedule – students choosing this option are enrolled in one or more online courses to supplement their traditional academic schedule; students may choose to be scheduled for a study hall to work on their online courses in school or schedule part of their day at home and part of their day at school depending on what meets the needs of the family / student; some students take advantage of this option to pursue work opportunities, credit recovery or credit advancement; some students use this opportunity to free up time within their regular schedule to take electives they may not have had room for otherwise.
- Online courses taught within the regular schedule – students choosing this option are scheduled for one of the 5 online courses that are taught during the regular school day (9 English, 10 English, Geometry, Justice Education, Field Biology); **these courses are designated as “Pearson-Connexus” sections in the course catalog**; students enrolling in these courses would attend regular scheduled classes and log onto their online class using a laptop provided to them with their teacher in the room to guide them through the online course; this option is a nice option for students that want to gain experience with online learning, but are hesitant to pursue it on their own; students may take these courses even if they are at home taking a fully online schedule allowing them to participate in a more synchronous online learning environment.

WOA Guidelines:

- **Enrollment** - The Wellsboro Online Academy classes are semester based courses. Although we encourage students to enroll at the beginning of each semester, we operate on an open enrollment system to meet specific needs of students. Students must first consult with their guidance counselor to enroll in the Wellsboro Online Academy.
- **Orientation** – Students who enroll in one or more online courses at the beginning of the semester will be required to attend an orientation session with their parents. This session will review the policies and procedures of the Wellsboro Online Academy and introduce students to their online teachers. Students will also be required to complete the Pearson-Connexus Orientation course to familiarize themselves with the technologies required to access the curriculum, submit assignments and take assessments.

Students (along with parents) enrolling in the middle of the semester will be required to meet with Dr. Largey, Coordinator of Online Programs, to review orientation materials individually.

- **Curriculum** – The Wellsboro Online Academy uses a PA Standards Based K-12 online curriculum through Pearson-Connexus taught by Wellsboro Area School District faculty. In addition, various online courses have been developed on Pearson-Connexus by WASD faculty.
- **Course Completion** - The Wellsboro Online Academy classes all follow a similar format. Each course has a course calendar tab posted on the course that outlines due dates for assignments and assessments throughout the semester. Although students are encouraged to adhere to the course calendar, late assignments are accepted until the end of each quarter.
- **Attendance** - Students are expected to log onto their online courses five out of seven days per week. Teachers will monitor student progress weekly and as long as a student is passing the course, it will be assumed attendance is satisfactory. If a student is failing a course, a weekly report will be generated that provides documentation of the hours the student has logging onto each course. Illegal absences will be recorded for days in which a student does not log onto their courses for at least one hour per course.

CREDIT REQUIREMENTS

All students are required to schedule and take a **minimum of 7 credits each year**. After a student’s schedule has been completed, the student may wish to add a course in place of a study hall. This will be permitted if there is room in the class. No course, however, will be moved to accommodate the addition. The following chart defines credit requirements for all students:

COURSE	CREDIT	COMMENT
English	4	Every Student, Every Year
Math	4	
Science	4	
Social Studies	4	
Arts/Humanities	2	Intro to Art (.5), Music Elective (.25)
Health/Physical Education	2	Every Student, Every Year
Foundations/Future Seminar	2	9 th Grade Year and 11 th Grade Year. This requirement will begin with the class of 2023.
Electives	5	

DROP / ADD PROCEDURES

The drop / add period will run from the time schedules are received in June through August 1st. All schedules are final as of the end of the counselor’s 10-day summer work period. Schedules after this point will only be addressed for failures of pre-requisites or credit recovery for seniors. If changes are needed due to misplacement, it will be per teacher, principal, guidance and parent approval.

FAILURE OF A SUBJECT

The successful completion of all graduation requirements is mandatory to participate in graduation. Required courses, if failed, must be retaken and passed. This has first priority in regard to future scheduling. The student will be placed in the repeat section of the subject and the remainder of the student's schedule will be built around the course.

GRADUATION REQUIREMENTS

Wellsboro Area School District will require 27 credits to graduate. All students must also achieve proficiency on the Keystone Exams in Algebra 1, Biology, and Literature or meet the expectations of Pennsylvania Department of Education. Graduation from the Wellsboro Area High School is based upon Pennsylvania Department of Education requirements and the successful completion of the minimum of Carnegie Credits as set by the Wellsboro Area School District's Board of Education. A student will not be allowed to participate in the graduation ceremonies, or receive a Wellsboro Area High School diploma unless all requirements are met.

HONOR ROLL

Distinguished Honor Roll and Honor Roll will be determined using the student's 9-week grades in each course. The grade reported in percentage form for each course will be multiplied by its credit value. These products will be added together and then divided by the total number of credits. This quotient will be the GPA percentage.

- Any student receiving a score equal to or below 76.999% in any course is not eligible for the Distinguished Honor Roll or Honor Roll.
- Students earning the classification of Distinguished Honor Roll must have a GPA percentage of 93 or greater.
- Students earning a classification of Honor Roll must have a GPA within the range of 85% and 92.999%.

KEYSTONE LOCAL ASSESSMENT

All students will be required to take the Keystone exams in Algebra 1, Biology, and Literature by the end of their junior year. If proficiency is not demonstrated students may graduate under the provisions of Senate Bill 1095.

NUMERIC GRADING SYSTEM

A	(93-100%)	Incomplete	I
B	(85-92%)	Medical	M
C	(77-84%)	Withdrawal	W
D	(70-76%)		
F	(below 70%)		

The "I" is used for incomplete work and zeros will be figured in for the assignments missing in two weeks after the grading period, if the work is not made up. It is the responsibility of the student to make up the work.

The "M" is used when a student is physically unable to complete course requirements. A valid medical excuse must be on file. The student will be required to attend class and take all written tests. Failure in written tests will result in failure in the course.

The "W" grade is given if a student withdraws from a class after 15 class periods.

Students with below a 70%, I or W will not be eligible for the Honor Roll. These grades also affect eligibility status for participation in extracurricular activities.

Testing Programs

PSAT: The PSAT/NMSQT is the Preliminary SAT/National Merit Scholarship Qualifying Test. The PSAT is a great primer for the SAT, and even the ACT, but it's more than just a trial run. PSAT scores are used to identify National Merit Scholars and award merit scholarships. More than 3.4 million high school students (mostly juniors and sophomores) take this nationwide, multiple-choice test every year.

SAT: The SAT is a college entrance examination created by the College Entrance Examination Board. Like the PSAT, the SAT is a standardized test which measures knowledge and skills that have been identified as most important for college and career readiness and success. The SAT consists of 2 sections: Evidence-Based Reading & Writing and Math. A third Essay Section is optional. Each section is given a scaled score ranging from 160 to 760. The SAT is offered seven times annually. Wellsboro Area High School is a test site three times per year in October, January, and March/April. Students can test at other local schools on the other testing days if they choose. The SAT is always administered on a Saturday. A listing of local testing sites and dates is available in the School Counseling Office. Students register for the SAT online at <https://www.collegeboard.org>. A photograph is required for registration. Students must print their admission ticket and have it with them at the time of testing. Students must also have appropriate photo identification even if testing at WAHS. When registering, students should be sure to include the WAHS school code (also called the CEEB code) of 395-135. If a student neglects to give this information, we will not receive their scores.

ACT: The ACT is a national college admission examination that consists of subject area tests in English, Math, Reading, and Science. They offer Writing as an optional testing category. The SAT is more commonly used in our region; however, either test is typically accepted at most colleges throughout the country. Students sometimes opt to take the ACT to present other strengths not covered on the SAT. Wellsboro Area High School is not an ACT test site; however, it is given nearby for all six administrations. A listing of local testing sites and dates is available in the School Counseling Office. Students register for the ACT online at www.actstudent.org. A photograph is required for registration. Students must print their admission ticket and have it with them at the time of testing. Students must also have appropriate photo identification when testing. When registering, students should be sure to include the WAHS school code of 395-135. If a student neglects to give this information, we will not receive their scores.

ASVAB: Students in 10th through 12th grade can elect to take the Armed Services Vocational Aptitude Battery (ASVAB). Students sign up through the School Counseling Office. The test is administered once a year at TAHS in November. This assessment measures aptitudes in areas such as word knowledge, arithmetic reasoning, general science, and mechanical comprehension. The ASVAB measures aptitudes that are related to success in different jobs and occupations. The assessment is scored in a manner that informs students of their abilities and readiness to become proficient in ten separate types of activities. ASVAB results are returned to participating students in a feedback session facilitated by a representative from Harrisburg.

An additional part of the ASVAB includes career exploration. The career exploration portion of the ASVAB is especially valuable in that it helps students identify areas for career exploration. The "Exploring Careers" workbook is used with this portion of the ASVAB. This workbook enables the test taker to compare personal interest (established through an interest inventory), with personal preferences, to explore over 200 types of different occupations. This information is utilized to help the student further explore his or her career interests.

AP Exam: Students in Advanced Placement courses are mandated to take the corresponding AP examination at the end of the course. WAHS has AP courses in Chemistry, English Literature & Composition, Government & Politics: US, Calculus AB, Calculus BC, Psychology— each AP Exam contains a free-response section (either essay or problem solving) and a section of multiple-choice questions. Each AP Exam is given an overall grade of 1, 2, 3, 4, or 5, with 5 indicating a student who is extremely well qualified to receive college credit and/or advanced placement based on an AP Exam grade. Most colleges require that a student earn a grade of 3 or

higher to be considered for college credit. Students are responsible for the cost of the test. The tests are administered in the month of May, during the normal school day. Results of the AP Exams are made available in July. Students are informed of the upcoming test through their AP classroom teacher. Tests are coordinated through the School Counseling Office for those students who opt to test. More information about AP is available at <https://apstudent.collegeboard.org/exploreap>.

NOCTI: The Pennsylvania Department of Education requires that all secondary students concentrating in or completing a career and technical education (CTE) program participate in occupational competency testing. The testing program mandated by PDE is the National Occupational Competency Testing Institute (NOCTI). At WAHS, Horticulture and Plant Science, Building and Construction Technology, Carpentry/Carpenter and Culinary Arts must take the NOCTI. Students required to participate are informed by their classroom teacher. In addition, a letter is sent home to parents informing them of their student’s participation. Students will have the opportunity to earn a Pennsylvania Skills Certificate, if they score at the Advanced Level on all portions of the exam. Students scoring at the Competent Level will earn a Certificate of Competency. NOCTI testing takes place at the end of April each year.

Keystone Exams: The Keystone Exams are state mandated end-of-course assessments designed to assess proficiency in the subject areas of Algebra I, Literature, and Biology. The Keystone Exams are a mandatory component of Pennsylvania’s system of high school graduation requirements. The graduating class of 2021, students will also be required to successfully demonstrate proficiency on all three Keystone Exams or complete one of the four options defined in Senate Bill 1095 on the Keystone Exams for graduation. There are four testing windows in the Keystone Exam calendar. WAHS tests its students during two of the testing windows: the Winter Wave 1 (December) and the Spring Testing Window (May). Students will be informed of which tests they must take and when.

Valedictorian/Salutatorian Requirements

If you are competing for the Valedictorian and Salutatorian honor, you MUST have taken the following courses to be eligible:

ENGLISH	MATH		SOCIAL STUDIES	SCIENCE
9 Honors	Algebra 2	Geometry	Historical Perspectives I: Honors Track	Keystone Biology I
10 Honors	Geometry	Pre-Calc	Historical Perspectives II: Honors Track	Keystone Biology II
11 Honors	Pre-Calc	AP Calc	Honors Government	Chemistry
AP Literature and Composition	AP Calc	AP Calculus BC	Need (1.0) credit of following: Sociology (.5) AP Psychology (.5) Dual Enrollment Psychology (.5) AP Government (1.0)	Honors Physics or AP Chemistry

Accelerated Graduation: Accelerated graduation is possible for students who desire an intense schedule with early graduation as their goal. This is accomplished through advanced planning with the approval of the administration and the support of parents, teachers, and guidance counselors. Candidates for the accelerated graduation are expected to maintain a grade point average of 3.0 with no failing grades in any subject and proficiency or advanced on the Keystones.

ENGLISH DEPARTMENT

4.0 CREDITS OF ENGLISH ARE NEEDED TO MEET WASD GRADUATION REQUIREMENTS

Three levels of English are offered at each grade level after ninth grade, which includes an honors and college prep level in addition to regular English. To be in the honors level English the student must maintain a minimum of a "B" average and have a recommendation by the previous English teacher.

****** Three selected books are required to be read over the SUMMER for the Honors level and Advanced Placement classes. ******

Grade 9	Grade 10	Grade 11	Grade 12
English 9	English 10	English 11	English 12
Honors English 9	Honors English 10	Honors English 11	AP English/AP Composition
			Dual Enrollment College Writing

English Electives (not for English Credit) PSAT/SAT Prep (0.5cr)

Students taking AP English courses are required to take the exam that follows the instruction. The students must pay (\$94 or more) for the exam prior to the start of the class. Financial aid may be requested.

8111 9 Honors English (36 wks. 1.0 cr.)

In ninth grade honors English, students analyze major works of literature from a variety of genre. In addition to the study of literature, emphasis is placed on the mastery of composition skills. Grammar is taught as it relates to composition, and vocabulary development is stressed throughout the year. Several individual and group projects are required. **Students in ninth grade honors class must have the recommendation of the eighth grade English teacher, recommended to have at least a 93% average in 8th grade English, and they must do the summer reading requirement. Those taking this class must take course number 8221 Honors American History.**

8113 9 English (36 wks. 1.0 cr.)

In these ninth grade English courses, students will study world literature of a variety of genres written by important literary figures. Reading strategies will be reviewed. Writing will focus on the narrative, expository, and persuasive essays. Grammar will be taught as it relates to writing, and vocabulary development will be stressed throughout the year.

8121 10 Honors English (36 wks. 1.0 cr.)

This course includes extensive study of American literature from the Colonial Period to the present. The first 9 weeks includes the 3 summer reading selections and a survey of American literature from the Colonial Period to the present. Four or more other major works are studied to broaden the literary experience. A mastery of literary terms is required. Composition, based on the literature, consists of a review of paragraph development and structure, major and minor support sentences, logical arrangement of ideas, and transitional devices. Composition writing based on the Pennsylvania Keystone Writing Assessment Domains will be practiced. Students are encouraged to think critically and independently and support ideas with facts. Pronunciation, vocabulary, word usage, spelling, punctuation and sentence structure are also stressed. What differentiates this class from 10CP English is the amount of homework and the student initiative required, starting with a summer reading program. Participation in this program is mandatory and failure to complete this class component could lead to failure of the 1st nine weeks

8123 10 English (36 wks. 1.0cr.)

This course surveys American literature from the Colonial period to the Present. Four or more works of major authors are studied for a broadening of literary experience. Mastery of literary terms is required. Composition, based on literature covered in class, consists of a review of paragraph development and

structure, major and minor support sentences, and logical arrangement of ideas. Areas receiving specific attention are speaking activities, vocabulary, word usage, and punctuation. Works by major authors are used to supplement the anthology. The composition program continues techniques begun in the first half of the year with particular attention given to the elimination of run-on sentences and sentence fragments, variety of sentence structures, word choice, and careful proofreading. Students are encouraged to think critically and to support their ideas with facts. Emphasis is placed on vocabulary, word usage, and oral expression. Project and problem-based learning encourage the student to make cross-curricular connections. Developing technology and 21st century skills are another focus of this course.

8129 PSAT/SAT Preparation (18 wks. .5 cr.)

This course includes preparation for the SAT-Reasoning Test. It will be taught as two nine-week units, one covering the critical reading and writing, the other covering the mathematics test. Other tests such as the SAT-II, the PSAT/NMSQT, and the ACT are also considered. The purpose of this course is to better prepare our students for college entrance testing. **Not for math or English credit.**

8131 11 Honors English (36 wks. 1.0cr.)

British literature from the Old English period to the twentieth century is surveyed. Several longer works of major authors are studied in depth, including Chaucer, Shakespeare, Milton, and Shelley. Emphasis is also on composition, mechanics, and spelling. Students will learn proper research techniques, including note taking, bibliography format, thesis writing, and MLA documentation. Speech opportunities include discussions, oral interpretations, and dramatic presentations.

8133 11 English (36 wks. 1.0 cr.)

During the first semester, English literature from the Old English period to the Middle English period is surveyed. In addition, two or three longer literary works of major authors are studied. The composition covers exposition, explication. Emphasis is placed on the correction of individual errors in grammar, mechanics, spelling, and sentence construction. Speech opportunities are provided in class discussion, oral explication, and panel discussion. The second semester surveys English literature from the seventeenth century poets to the major twentieth century authors. Three or more longer literary works of major authors are studied with emphasis on explication and critical analysis. Special emphasis is placed on vocabulary, pronunciation, individual reports, and poetry readings. The grammar studied will expand upon the material from first semester. Special emphasis is placed upon misplaced modifiers and parallel structure.

8141 Advanced Placement English - Grade 12 (36 wks. 1.0 cr.)

It is the purpose of Advanced Placement English to identify students who, having attained the reading and writing skills generally expected in introductory college courses in composition and literature, are ready for advanced, more specialized English courses when they arrive at college. Consequently, if students who take this course also take the Advanced Placement English Exam (given in May each year), and if they demonstrate a satisfactory degree (based on the standards of the college) of perceptiveness and proficiency in literary analysis and in writing skills, they may be excused from required English courses in the college of their choice. In AP English, students are engaged in the critical reading and analysis of literature. They study the individual work, its language, characters, action, and theme. They consider its structure, meaning, value, and its relationship to contemporary experience as well as the time in which it was written. The works studied are of recognized literary merit and worthy of careful scrutiny because they are complex and rich in thought and language. Advanced Placement English is a full year course.

8143 AP Composition – Grade 12 (18 wks. .5 cr.)

This composition course, taken in conjunction with Advanced Placement English, provides the writing background needed to master the principles of college composition.

8144 12 English (36 wks. 1.0 cr.)

Writing, literature, and vocabulary development will be stressed during this course. Instruction in writing will cover the following: a review of the purpose and structure of expository, narrative, descriptive, and

persuasive writing; utilization of the writing process; improving word choice; the use of parallel structure, transitions, active and passive voice; and the identification and elimination of problems in writing. In addition to essay writing, students will identify and complete the steps in writing and revising a ten-page research paper that follows MLA guidelines. This paper will include an outline, bibliography and internal citations. Literature will be studied with emphasis on comprehension and enjoyment. Students will also improve their vocabulary through systematic vocabulary study. A culminating activity will be an autobiography.

8157 Dual Enrollment College Writing- Grade 11, 12 (18wks. .5cr)

The purpose of this course is to introduce high school students to the types of assignments they can expect in a freshman college composition class. Upon successful completion of course requirements, students will earn college credit through Lackawanna College. Dual Enrollment College Writing familiarizes students with the writing process, enabling them to create polished, coherent academic essays that employ critical, analytical, and research skills. Using a holistic approach to academic writing, students will develop clear, thoughtful essays in standard academic forms. The course's culminating activity will be a properly organized, fully documented research paper.

8152 Creative Writing – Grade 9,10 (18wks. .5 cr.)

In this writing workshop course, students will develop writing and creative writing skills to create short stories, poetry, one-act plays, etc. Emphasis will be on the writing process, as well as the written product. Students who wish to become involved in a writing project and to improve their writing skills will find this course useful and instructive.

8441 Business English – Grade 12 (18 wks. .5 cr.)

This twelfth grade required course for business students teaches the individual to be more proficient in the recognition of proper grammar in written communication. Grammar, sentence structure, punctuation, capitalization, vocabulary, spelling and letter writing are covered.

SOCIAL STUDIES DEPARTMENT

4.0 CREDITS OF SOCIAL STUDIES ARE NEEDED TO MEET WASD GRADUATION REQUIREMENTS

Advanced Placement Course

Advanced Placement Government is offered to 11th or 12th graders, who are required to take the AP exam that follows the instruction. **Students must pay the cost (\$94 or more) of the exam prior to the start of the course. Financial aid may be requested.**

Grade 9	Grade 10	Grade 11	Grade 12
Historical Perspective I	Historical Perspective II	Government & Economics	AP Government
		Honors Government & Economics	AP Psych
		AP Government	Additional Courses
			Additional Courses

Social Studies Additional Courses

Sociology (0.5cr)
Applied Psychology (0.5cr)
Justice Education (0.5cr)
Dual Enrollment Psychology (0.5cr)

Crimes, Criminals & Courts (0.5cr)
Sports & Social Sciences (0.5cr)
Preparing for College (0.5cr)
AP Psychology (0.5cr)

8223 Historical Perspectives I (36 wks. 1.0 cr.)

Ninth grade historical perspectives will take you on a journey exploring both American and World events from roughly the 1760s through 1910. Students will spend 4 weeks with the American history teacher and then 4 weeks with the world history teacher exploring a similar world topic. The goal of this class is for students to understand the connection between events in the United States and the World and better understand the global world we live in today. Students will be graded on both their academic knowledge but also on Habits of Mind. Habits of Mind are traits, which will allow students to be successful in life.

There are no separate honors classes in Historical Perspectives. Every student has the opportunity through their work to earn the honors designation on their transcript at the end of the year. There will be NO additional work required to earn an honors designation. The quality of thought and work will be the determining factor. **Very simply, to earn the honors designation a student must achieve a 4 on the Habits of Mind being assessed over the entire year.**

8231 Government & Economics (36 wks. 1.0 cr.)

This course covers the structure and functions of the federal government—executive, legislative, and judicial branches—through examination of the Constitution and its limits on the power of the federal government. Students will also become familiar with state and local government, particularly Pennsylvania government. Students will learn how informed, involved citizens can affect the quality of government. Current events are used to demonstrate how the theories of government are applied outside of the classroom. It will also provide an overview of economic concepts, models and terminology. Economics is the study of how resources are allocated in various economic systems, and explores various types of businesses and how the banking system operates.

8235 Honors Government & Economics (36 wks. 1.0 cr.)

This course is designed for the student with an in-depth interest in the working of our American Government at the national level. The course will examine, from an analytical perspective, the institutions, participants and processes that characterize the nature and function of the American political system. The course begins with the study of political power, the Constitution and federalism. It continues with the exploration of our political culture, political parties, the election process, interest groups and the media. We will also examine the workings of the legislative, executive and the judicial branches of our federal government from their inception to the present. We will also discuss the major civil rights and civil liberties issues as well as the controversies in U.S. foreign policy that helped to shape our modern American political thought. It will also provide an overview of economic concepts, models and terminology. Economics is the study of how resources are allocated in various economic systems, and explores various types of businesses and how the banking system operates.

Prerequisite for the course is a 90% GPA for the previous school year in the Social Studies curriculum. This course is an alternative for Government 8231.

8233 AP Government - (36 wks. 1.0 cr.) SUMMER WORK INCLUDED

AP United States Government and Politics is a college-level introduction to key political concepts, ideas, institutions, policies, interactions, roles, and behaviors that characterize the constitutional system and political culture of the United States. Students will read and analyze U.S. foundational documents, Supreme Court decisions, and other texts and visuals to gain an understanding of the relationships and interactions between political institutions and behavior. They will read and interpret data, develop evidence-based arguments, and engage in an applied civics or political research-based project. Students will take the AP Government Exam given in May of each year. If the exam score is high enough the student may receive credit of the course by a participating college. **Pre-requisite: Student must have a 93% GPA for the previous (Freshman/Sophomore) school year in the Social Studies curriculum.**

8214 Historical Perspectives II (36wks. 1.0 cr.)

Tenth grade historical perspectives will take you on a journey exploring both American and World events from roughly the 1920's through today. Students will spend 4 weeks with the World History

teacher and then 4 weeks with the American history teacher covering a central thematic topic. The goal of this class is for students to understand the connection between events in the United States and the World and better understand the global world we live in today. Students will be graded on both their academic knowledge but also on Habits of Mind. Habits of Mind are traits, which will allow students to be successful in life.

There are no separate honors classes in Historical Perspectives. Every student has the opportunity through their work to earn the honors designation on their transcript at the end of the year. There will be NO additional work required to earn an honors designation. The quality of thought and work will be the determining factor. **Very simply, to earn the honors designation a student must achieve a 4 on the Habits of Mind being assessed over the entire year**

8243 Sociology – Grades 11, 12 (18 wks. .5 cr.)

Sociology is the scientific study of human society and social interactions. This course is designed to help students analyze the effects of society on the group. Emphasis is placed on contemporary social issues that influence the development of cultures, families, various groups and individuals. The course also takes an applied approach to the study of sociology so that the student has an opportunity to utilize these concepts in his/her everyday life.

8244 Applied Psychology – Grades 11, 12 (18 wks. .5 cr.)

Psychology is the study human behavior and mental processes. In this introductory course, a variety of topics are presented including memory, learning, stress and coping, sleeping/dreaming, psychological disorders, treatment/therapy, social behavior, and other related issues. The course takes an applied approach to the study of psychology so that the student has the opportunity to utilize these concepts in his/her everyday life.

8246 Justice Education – Grades 11, 12 (18 wks. .5 cr.)

This is an introductory course into our legal system, criminal procedures and civil actions. Areas of emphasis in the criminal area include definitions of crimes against the person and property, defenses, and criminal procedure laws. Current events related to the criminal justice system are also a major focus. An additional part of the course is a voluntary program for students to accompany an officer of the Wellsboro Police Department on a two-hour ride along.

8251 Dual Enrollment Psychology - Grade 11,12 (18wks. .5cr)

Students enrolled in Dual Enrollment Psychology have the potential to receive both high school and college credit if the course is completed successfully. DE Psychology will be structured as a college-level introductory course with higher expectations for independent study. Course topics will include the history of psychology, research methods, memory, learning, personality, lifespan development, social behavior, psychological disorders, mental health therapy/treatment, and others. Scholarly research will also be a major focus of the course.

8252 AP Psychology - Grade 11,12 (18wks. .5cr)

The AP Psychology course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. They also learn about the ethics and methods psychologists use in their science and practice. Students will take the AP test at the end of the course that may lead to college credits depending on score and University guidelines. AP Psychology must be taken along with Dual Enrollment Psychology.

8255 Crimes, Criminals and Courts- Grade11, 12 (18 wks. .5cr)

This course contains elements of all three social science courses – Psychology, Sociology, and Justice Education. It is intended for those students who have an interest in the criminal justice system. Topics include but are not limited to the FBI, profiling, etiology of criminal behavior, psychological disorders, insanity, police procedure, criminal investigation, forensics, and true crime cases.

The course is open to juniors and seniors who have completed one of the social science electives (Psychology, Sociology, or Justice Education) and passed 10th or 11th grade English.

8239 Sports and Social Sciences – (18 wks. .5cr.)

This course examines a wide variety of social science topics related to psychology, sociology, criminal justice, history, world cultures, and politics using examples from sports/athletics. Topics include but are not limited to the following: racism, gender equality, violence, aggression, the role of the media, motivation, technology, physical and mental health, terrorism, coaching, learning, advertising, drugs & alcohol, gambling, group dynamics, youth sports, and performance anxiety. We will focus heavily on current events and spend time evaluating various forms of media. **The course is open to juniors and seniors who have completed (or are currently enrolled in) one of the social science electives (Psychology, Sociology, or Justice Education) and passed 10th or 11th grade English.**

8019 Preparing For College – Grade 11,12 (online) (18wks. .5cr)

This course is open to juniors and seniors who are interested in preparing for college-level courses. The course will be offered online through Wellsboro Online Academy. Topics addressed will include transitioning to college, test preparation/studying, learning styles, college writing, active listening and note taking, stress management, time management, textbook reading/marking, test taking, and many others. In addition to the gaining practical knowledge about these topics, students will also be exposed to an online learning environment, which will also prepare them for higher education.

MATH DEPARTMENT

4.0 CREDITS OF MATH ARE NEEDED TO MEET WASD GRADUATION REQUIREMENTS

Advanced Placement Course

AP Calculus is a course offered to 12th graders, who are required to take the AP exam that follows the instruction. **Students must pay the cost (\$94) of this exam prior to the start of the course. Financial aid may be requested.**

Only one sequence of Accounting can count as a math credit; Accounting 1 or Accounting 2 - not both.

Grade 9	Grade 10	Grade 11	Grade 12
Pre-Algebra	Algebra 1	Algebra 2	Geometry
Algebra 1	Algebra 2	Geometry	Pre-Calculus
Algebra 2	Geometry	Pre-Calculus	Calculus or AP Calculus
Geometry	Pre-Calculus	AP Calculus	AP Calculus BC
		Additional Courses	Additional Courses

8311 Pre-Algebra (36 wks. 1.0cr.)

This course is the beginning of a sequence designed to provide the student with a solid background in algebra. The focus is to familiarize the student with pre-algebra concepts as put forth in the Pennsylvania Standards as well as to ensure success in subsequent courses. Topics covered include: manipulating algebraic variables and integers; applying algebraic properties; solving one-step equations and inequalities; and using decimals, fractions, ratios, and proportions to solve problems. Additional topics may include: solving equations and inequalities with two or more steps; graphing equations with two variables; working with multiple representations of data with two variables; and selected topics of data analysis.

8351 Algebra 1 (36wks. 1.5 cr.)

This course is the foundation for future courses in high school mathematics and is based on the Pennsylvania Common Core Mathematics Standards set forth by the Pennsylvania Department of Education. It is expected that students will formalize and expand on Algebraic concepts established in

previous coursework. Students will reason quantitatively, create equations that describe numbers or relationships, understand solving equations as a process of reasoning, and solve equations and inequalities in one variable including absolute value inequalities. Students will deepen and extend their understanding of linear relationships by creating linear models for data that exhibit a linear trend. Students will learn function notation and develop an understanding of domain and range. There will be a thorough study of linear equations and inequalities and their graphs, including systems of equations and inequalities where they will find and interpret their solutions. Students will master properties of integer exponents and factoring to simplify a rational function. Quadratic functions will be introduced. Lab activities will be utilized to reinforce student learning.

8353 Algebra 2 (36wks. 1.0 cr.)

The aim of this course is to expand upon the important concepts of Algebra 1 and is based on the Pennsylvania Common Core Mathematics Standards set forth by the Pennsylvania Department of Education. Specifically, students will study linear functions, equations, and graphs. There will be extensive work with quadratic equations and functions, polynomials and polynomial functions, radical functions and rational exponents, rational, exponential, and logarithmic functions. If time permits, students will be introduced to sequences, series, and probability and statistics. **Pre-requisite: Algebra 1**

8323 Geometry (36 wks. 1.0 cr.)

This course introduces students to basic geometric definitions, postulates, theorems, and proof. Students will also work with parallel and perpendicular lines, congruent triangles, and quadrilaterals, as well as investigate relationships within triangles. Students will become familiar with properties of quadrilaterals, circles, and similar triangles. In addition, students will calculate areas, and volumes of a variety of geometric figures. Students will also be introduced to right triangle trigonometry.

Pre-requisites: Algebra 1 and Algebra 2

8337 Algebra 3 (36 wks. 1.0 cr.)

This is a senior algebra course is designed as a capstone for desiring to prepare for freshman college algebra course, or math courses required at a trade school. The following concepts are covered in detail: a survey of algebra and geometry and their applications, followed by an introduction to trigonometry and its applications. The pacing of this course is less rigorous than the Pre-Calculus course, but some of the same topics will be covered.

8333 Pre-Calculus (36 wks. 1.0 cr.)

The aim of this course is to prepare the college bound student with a foundation needed for college math. It also serves as a bridge from Algebra 2 and Geometry to Calculus. First semester topics include trigonometric functions, circular measure, graphing, and solving trigonometric equations. Second semester topics include polynomial and rational functions, and logarithmic and exponential functions. Graphing calculators are used to study the nature of graphs. Concepts will be applied through problem solving in the various fields of math and science. **Pre-requisites: Algebra 2 and Geometry**

8342 Calculus (36 wks. 1.0 cr.)

This course is designed for the college bound student with interest in math and science. The course covers both differential and integral calculus with theory and application of the derivative and integral. **Pre-requisites: Geometry and Pre-Calculus**

8344 Advanced Placement Calculus AB (36 wks. 1.0 cr.)

This course is designed for the college bound student with interest in math and science. Since college credit may be obtained for the course through the Advanced Placement Testing Program of the College Entrance Examination Board, the pace is strenuous. The course covers both differential and integral calculus with theory and application of the derivative and integral. **Pre-requisites: Geometry and Pre-Calculus.**

8346 Probability and Statistics (36 wks. 1.0 cr.)

This course serves as an introduction to probability and statistics. The student who completes this course will be prepared for further study at the college level. The first quarter will involve the study of descriptive statistics, including designing and carrying out a plan to gather sample data, and the ability to display and analyze the data using current software. The second quarter of the first semester will focus on a study of probability. The entire second semester will be an introductory study in the field of inferential statistics. Students will learn how to run a variety of statistical tests on sample data to make decisions and solve problems. The majority of problems will be current and come from the fields of business, science, economics, and politics.

8357 Advanced Placement Calculus BC (36 wks. 1.0cr.)

This course is open only to those who have successfully completed a full year of calculus; Students will study topics in advanced calculus (with an option to prepare for the BC Calculus Test), vector calculus, differential equations, linear algebra, calculus-based probability and statistics, and other assorted topics. Most of the work will be done independently. Only students with a strong interest and background in mathematics should consider this course.

8359 Dual Enrollment College Algebra - Grade 11, 12 (18wks. .5cr)

This course will be structured as a college-level introductory course. Students enrolled in Dual Enrollment College Algebra may receive both high school and college credit, if the course is completed successfully. Upon successful completion of course requirements, students will earn college credit through Lackawanna College. Course topics include: mathematical modeling, functions, slope and related formulas, inequalities (including absolute values), polynomials, factoring, synthetic division, rational expressions, quadratic functions, radicals, radical functions, rational exponents, and exponential and logarithmic functions. To cover the material in a semester, the course will move at an accelerated pace and students will be expected to spend the requisite time outside of class in order to master course material.

SCIENCE DEPARTMENT

4.0 CREDITS OF SCIENCE ARE NEEDED TO MEET WASD GRADUATION REQUIREMENTS

Grade 9	Grade 10	Grade 11	Grade 12
Keystone Biology I	Keystone Biology II	Physical Science-Chem & Physics	Science Course
Honors Biology	Chemistry	Physics (Conceptual, CP or Honors)	Chemistry
	Additional Courses	Chemistry	Physics (Conceptual, CP or Honors)
		AP Chemistry	Honors Physics
		Additional Courses	Additional Courses

8627 Keystone Biology I (36 wks. 1.0 cr.)

This course will focus on foundational processes of life in terms of chemistry, genetics, cellular types and components, photosynthesis and cellular respiration, cellular reproduction, and Mendelian Genetics. It will also take a focused look at gene and chromosome activity, as well as the role of nucleic acids in protein synthesis. Genetic concepts are applied to varying living systems. The history of life and evolutionary concepts are examined. Current classification schemes of organisms, followed by a discussion of various ecological concepts concludes the year. Throughout the year, emphasis is placed on completion of lab exercises that serve to reinforce concepts discussed, and are scheduled on alternating days.

Student progress in these courses is measured using a variety of assessments. Such assessments include, but are not limited to, a considerable amount of graded instructional reinforcements (homework) completed outside of class, completion of numerous laboratory exercises (major components of which are completed outside of class), as well as formative and summative assessments (written exams). The majority of test items are designed to align with PA Department of Education expectations for demonstrating student mastery of biological concepts using higher levels of cognitive thinking (comprehension, application, analysis, etc.)

8629 Keystone Biology II (36 wks. 1.0 cr.)

The course will focus on the foundational processes of life in terms of chemistry, genetics, cellular types and components, photosynthesis and cellular respiration, cellular reproduction, and Mendelian Genetics. Then will continue with a look at gene and chromosome activity, the role of nucleic acids in protein synthesis, and genetic concepts applied to living systems. Concepts relating to the history of life and evolution are examined, followed by current classification schemes of organisms. The year concludes with a discussion of ecological concepts. Completion of laboratory exercises reinforcing concepts discussed throughout the entire year. Lab periods are scheduled on alternating days.

Laboratory activities and demonstrations will be used to reinforce key concepts discussed during class. Students will be responsible for the execution of activities and data analysis/reporting. Experimental design and set-up will be teacher-led and student assisted.

Extended thinking strategies will be teacher – led in a cooperative learning environment. Review activities and instructional supplemental information will be completed within the educational environment for the majority of assignments; however, the student will regularly be assigned reinforcement materials for completion outside of the classroom setting.

Daily and weekly formative assessments will be administered in alignment with state standardized assessments. Summative assessments will reinforce content material in a manner similar to Keystone Assessment materials. The majority of test items are designed to align with PA Department of Education expectations for demonstrating student mastery of biological concepts using higher levels of cognitive thinking (comprehension, application, etc.)

8625 Physical Science – Chemistry (18 wks. .5 cr.) (Not intended for students who have previously taken CP Chemistry)

Chemistry topics include: the study of matter and changes, kinetic molecular theory, gas laws, atomic theory, the periodic table, chemical bonding, chemical reactions. Topics are more focused towards everyday uses and occupational aspects of the course are tied in throughout the semester. **Pre-requisites: Keystone Biology I,II**

8626 Physical Science - Physics (18 wks. .5 cr.)

Study of motion (straight-line, projectile and circular), forces, energy, momentum, waves, electricity and magnetism are investigated through laboratory investigation, reading and discussion. Environmental, consumer, career and occupational educational aspects are tied in throughout the course. **Pre-requisites: Keystone Biology I,II**

8631 Chemistry (36 wks. 1.0 cr.)

Chemistry topics include: the scientific method, changes in matter and energy, experimentation, atomic theory, periodic table, quantum levels, nomenclature, bonding, reactions, the mole concept, stoichiometry, gas laws, and nuclear chemistry. **Pre-requisites: Algebra 1 & 2, Keystone Biology I, II**

8661 AP Chemistry (36 wks. 1.5 cr.)

Students in this course will use modern technology to perform inquiry based laboratories to explore the AP Chemistry curriculum. The curricular framework for this course is based off the College Board AP

Chemistry content. Topics include: atomic structure, bonding and properties, chemical reactions, kinetics, thermodynamics, and chemical equilibrium. College credit at most universities will be awarded to students who earn a 4 or 5 on the AP Chemistry Exam.

Pre-Requisites: Chemistry, Pre-Calculus, Teacher Recommendation

8633 Advanced Biology – Grades 11, 12 (18 wks. .5 cr.)

This biology course is based on a college text and is designed to challenge students with more technically accurate models of life processes. Emphasis is placed on the chemical and molecular aspects. We will also explore new techniques in biology by completing numerous “hands on” labs and activities. **Pre-requisites: 9 Honors Biology, Keystone Biology I,II; Chemistry can be taken concurrently**

8634 Field Biology – Grades 11, 12 (18 weeks .5cr.)

This one semester course is designed to introduce students in all curricula to the plants and animals native to the Wellsboro Area. Students will become familiar with field characteristics of organisms through the use of identification keys and field guides. Areas stressed will include: identification, external anatomy and taxonomy. Organisms studied will include: insects, fish, amphibians, reptiles, birds, mammals, wildflowers, ferns, and deciduous trees.

Pre-requisites: Keystone Biology I,II

8647 Conceptual Physics - (36 wks. 1.0 cr.)

This course is provided as an alternative to the algebra/trigonometry based physics course for those college bound seniors who fail to meet the mathematical pre-requisites for the traditional course. Areas of study include, but are not limited to, kinematics, dynamics, properties of matter, thermodynamics, waves, optics, electricity and magnetism. Laboratory investigations using graphical analysis software and probe ware (motions sensors, photogates etc.) are used to reinforce the physics content.

Environmental, consumer, career and occupational educational aspects are tied in throughout the course. **Pre-requisites: Physical Science: Chemistry and Physical Science: Physics, Chemistry, Algebra 1 and Algebra 2**

8641 CP Physics – Grade 12 (36 wks. 1.5 cr.)

In this course of basic principles of classical physics, the student will utilize modern technology in the form of motion sensors, photogates, force sensors and graphical analysis software to quantitatively analyze experimental data, while gaining an understanding of kinematics, dynamics, projectile and circular motion, momentum and energy during the first semester. During the second semester students will investigate mechanical waves, sound, optics and electricity and magnetism. Considerable time is spent in problem-solving and laboratory investigation. **Pre-requisites: Algebra 1, Algebra 2, Physical Science: Chemistry and Physical Science: Physics, (Pre-Calculus, may be taken concurrently with CP Physics)**

8643 Honors Physics – Grade 12 (36 wks. 1.5cr.)

In this course of basic principles of classical physics, the student will utilize modern technology in the form of motion sensors, photogates, force sensors and graphical analysis software to quantitatively analyze experimental data, while gaining an understanding of kinematics, dynamics, projectile and circular motion, rotational motion, momentum, work and energy during the first semester. During the second semester students will investigate mechanical waves, sound, optics, electricity and magnetism. Good problem solving skills are a must for successful completion of this course.

Pre-requisites: Algebra 1, Algebra 2, and Pre-Calculus

HEALTH SCIENCES

8655 Anatomy/Physiology (36 wks. 1.0 cr.)

This course will study the structure and function of the human body using a body systems approach, with emphasis on correlation between form and function at the gross and microscopic levels of

organization. This is an ideal course for those considering the medical or veterinary fields. **Pre-requisite: 9 Honors Biology, Keystone Biology I,II and “Proficient” on the Keystone Biology Exam**

8657 Microbiology (18 wks. .5 cr.)

This semester course covers the fundamentals of microbiology and the role of microorganisms in the environment and in human affairs. Emphasis is given to medical aspects such as bacterial and viral diseases, resistance to disease, and characteristics of antimicrobial drugs. **Pre-requisite: 9 Honors Biology, Keystone Biology I,II and “Proficient” on the Keystone Biology Exam**

AGRICULTURE/NATURAL SCIENCE

What is FFA?

FFA is the largest national student organization in the country with over 500,000 members. The focus of this organization is premier leadership, personal growth, and career success. FFA is NOT an organization just for farmers. It is about all areas of agriculture including veterinary science, floriculture, biotechnology, agricultural mechanics, and wildlife to name a few areas. In the FFA, students participate in competitions, leadership conferences and community service on local, state, and national levels. Students must be in an agriculture class to be a part of the FFA. Participation in FFA activities is optional.

What is an Ag. Experience?

An Ag (agriculture) experience is a time for students to apply the skills they learn in an agriculture course outside of class time. It can happen in the summer before a student takes an agriculture course – or during the year. This can be through a job, volunteering, raising an animal, working with the animals at school, working with plants at school, promoting agriculture through posters, designing programs for local Ag. Safety day, or attending trainings to learn about local wildlife just to list a few examples. The instructor will assist the student in finding an appropriate Ag. Experience and check for the students' progress during this experience. Students will complete an Ag. Experience as part of class and/or if they complete enough hours they can earn an extra elective credit for their experience.

8851 Introduction to Agriscience, Food, and Natural Resources – Grade 9,10 (1 cr.)

Would you like to know more about animals, plants and the environment? If so – this course is for you. This course takes a hands on approach learning about the production of plants and animals, and the environment. Students will work with the small animals in the classroom, the plants in the greenhouse, as well as in the school forest areas. Additionally, students will complete lab activities and field trips to explore animal sciences, plant sciences, environmental sciences and the related fields. Students will complete an individual experience outside of the classroom related to one of these areas as part of their homework. An introduction to FFA will also be a part of the course.

8855 Natural Resource Management – (36 wks. 1.0 cr.)

If you love the outdoors this is the class for you. In this course students will gain an understanding and appreciation of the activities needed to manage natural resources. Major topic areas discussed include the management of soil, watersheds and wetlands, forests, wildlife and fisheries. Students will work in the school forest area, learn how to use tools in forestry, manage fish in an aquaculture setting in the lab, do stream studies, use GPS units and related software, and research problems in our local ecosystems. Students should be prepared to be outside. Students will complete an agricultural experience outside of the classroom as part of their homework. FFA topics and practical applications will be included as part of this course.

Pre-requisite: Keystone Biology I,II (may take concurrently). Recommended that you have taken Introduction to Ag.

8857 Plant Science & Horticulture 1 - (36 wks. 1.0 cr.)

In this course students will learn the principles and practices of horticulture and plant science. Students will learn about growth and reproduction of plant crops, disease and pest control, hydroponics, floral

design, and landscape and hardscape design and installation. Students will manage several crops grown in our greenhouse including bedding plants and vegetables in the spring. Students will actively be working in the greenhouse and outside to apply their learning. Students will also produce several floral designs throughout the year in the lab. Students will complete an agricultural experience outside of the classroom as part of their homework. FFA topics and practical applications will be included as part of this course. This course is designed to be a two-semester course. **Prerequisite: Keystone Biology I,II (may take concurrently). Recommended that you have taken Introduction to Ag.**

8859 Plant Science & Horticulture 2 – (36 wks. 1.0 cr.)

This course is the second level of plant science and horticulture. It is designed to prepare students for college or jobs in the plant and horticulture industries. Areas in floral design, arranging, bulb forcing, and raising plants for proper seasons will be covered. Students will be able to design flowerbeds and planting schedules for crops as well as gardens. Business economics will be covered in the areas of marketing, retailing, and maximizing profits. Significant portions of this course will be in the lab, greenhouse or outside. Students will take their pesticide applicator exam as part of this course. Other certifications may be offered through the course during the year. Students will complete an agricultural experience outside of the classroom as part of their homework. FFA topics and practical applications will be included as part of this course.

Prerequisite: Keystone Biology I,II and Plant Science & Horticulture 1. Recommended that you have taken Introduction to Ag.

8875 Environmental Science – Grade 11, 12 (36wks 1.0cr)

This is an applied, interdisciplinary science course which integrates aspects of biology, geosciences, chemistry and physics to understand the earth and the human impact on it. The goals of this course are to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world; to identify and analyze environmental problems both natural and human-made; to evaluate the relative risks associated with these problems; and to examine alternative solutions for resolving and/or preventing them. These goals will be accomplished individually and cooperatively through laboratory activities focusing on experimental design and critical thinking, field research and data collection, research projects, evaluation of current issues, demonstrations, lecture, and problem sets. **Pre-requisite: Students must score Proficient or higher on the Keystone for Biology.**

8863 Animal Science 1- (36 wks. 1.0 cr.)

Do you want to be a vet some day? Would you like to know more about taking care of animals? In this course students will study the science and practice of animal agriculture. All types of domestic animals will be studied including horses, livestock, dogs, cats, small pets, and fish among others. Students will study the production of these animals along with animal systems, health, nutrition, reproduction, health, welfare, and biotechnology. Students will work with the small animals in the lab as well as take field trips to see other animal facilities. Students will complete an agricultural experience outside of the classroom as part of their homework. FFA topics and practical applications will be included as part of this course. **Pre-requisite: Keystone Biology I,II (may take concurrently). Recommended that you have taken Introduction to Ag.**

8865 Animal Science 2 – Grades 11,12 (36 wks. 1.0 cr.)

This is the second level of animal science. Students will develop an understanding of large animal science and veterinary technology in this course. Through taking this course they will have a working knowledge of basic procedures that veterinary technicians perform including properly restraining animals, taking vital signs, bandaging, assisting in surgeries, and assisting with animal reproduction. They will work with small animals and large animals during the course with some sections of the course of focusing specifically on the handling and management of large animals including cattle, horses, sheep, goats, and pigs. Students will gain experience through field trips. Students will gain leadership skills, management experience, and learn how to properly keep records. Students will complete an agricultural experience outside of the classroom as part of their homework. FFA topics and practical applications will be included as part of this course.

Pre-requisite Keystone Biology I,II; Animal Science 1.

8853 Agricultural Leadership/FFA A - (18 wks. .25cr.)

8854 Agricultural Leadership/FFA B - (18 wks. .25cr.)

Students will develop skills in public speaking, leadership development, demonstrations, salesmanship and management. Other units of study include FFA history, agricultural careers and business, and etiquette. The class will read leadership development material and complete record books and degree applications for advancement in the FFA. Students will complete an agricultural experience outside of the classroom as part of their homework. Involvement in the FFA will be part of the grade in this course. This course meets every other day. This course can be taken more than once.

8872 Agricultural Leadership/FFA A (online)- (18 wks. .25cr.)

8873 Agricultural Leadership/FFA B (online)- (18 wks. .25cr.)

Online courses require the student to be self-disciplined, as well as possess strong time management and communication skills. Students will work independently through the course during a scheduled period in their regular day, allowing the classroom teacher to teach and encourage the process and content as well as address any student concerns or problems, which may arise. Although it is not required that the student have a computer and Internet access at home, it would be advisable to have a back-up plan in mind. The student should plan to use study halls and/or time before/after school in the Library Media Center if he/she needs to make up work for the course. In addition, students can use the Green Free Library in the evenings if necessary. Every Friday, the student will be required to email the teacher with a course progress update. This email should include a "cc" to the parent/guardian. This will allow for regular communication between the student, parent and teacher.

Students will develop skills in public speaking, leadership development, demonstrations, salesmanship and management. Other units of study include FFA history, agricultural careers and business, and etiquette. The class will read leadership development material and complete record books and degree applications for advancement in the FFA. Students will complete an agricultural experience outside of the classroom as part of their homework. Involvement in the FFA will be part of the grade in this course. This course meets every other day. This course can be taken more than once

8870 Supervised Agricultural Experience A – (18 wks. .5cr.)

8871 Supervised Agricultural Experience B– (18 wks. .5cr.)

This course must have prior approval from agricultural teacher as there is no classroom time. Students will choose a supervised agricultural experience outside of school hours that is related to a career objective. They will form an agreement with their teacher, parent, or other supervising adult to work in this experience for the length of the course. During this time the student will meet with the teacher on a weekly basis outside of class time to discuss their experience and review their record book. The student will be responsible for completing their record book for the duration of their experience. Students will gain valuable skills by working outside of class time to practice the skills they are learning in class. Students will also gain leadership skills, management experience, and learn how to properly keep records. This course may be taken more than once. ***Transportation must be provided by the student.***

8649 Introduction to Aviation (AOPA STEM Curriculum) (36 wks. 1.0 cr.)

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

Students will look at the problem-solving practices and innovative leaps that transformed space exploration from the unimaginable to the common in a single generation. Students will also gain historical perspective, starting from the earliest flying machines and leading to the wide variety of modern aircraft and the integral role they play in making today's world work.

8650 Aviation II (AOPA STEM Curriculum) (36 wks. 1.0 cr.)

Awaiting arrival of curriculum from AOPA

ACCOUNTING, BUSINESS, COMPUTER AND INFO TECH DEPARTMENT

8363 Computer (18 wks. .5 cr.)

This course, uses a Windows-based program to integrate the word processing, spread sheet and database files. The means by which the computer can be used as a tool after graduation with commercially written software will be explored.

****This course will NOT count for math credit,***

8364 CP Computer Technology (18 wks. .5 cr.) ****This course will NOT count for math credit.***

The objective of this course is to have students explore different aspects of how a computer can be used as a technological tool. Students will explore future trends of technology while increasing their proficiency in the uses of disk management tools, personal information managers. The student will also investigate further uses of power point, and data integration using spreadsheets, databases, the word processor, charts, and tables.

8365 CP Computer Programming (36 wks. 1.0 cr.)

The objective of this course is to provide the student with the tools to develop problem-solving skills. The process of defining a problem, breaking it down into a series of smaller problems, and writing a computer program to solve it is addressed with the student so that they will develop logical problem solving skills. In addition, the student is made aware of the capabilities and limitations of the computer and soon realizes that the programmer-the human element-is more important than the machine.

Topics to be covered are procedures and sub-procedures, static variables, and function procedures, mathematical and business functions, arrays, graphics, sequential access files random access files, sorting and searching.

Pre-requisites: Computer, Algebra 1-2

8411 Business Management - Grades 9-12 (36 wks. 1.0 cr.)

This is a two-semester course designed to teach the fundamentals of ALL areas of business and select areas of economics. Sports and Entertainment management units are now included in this course. Business Management provides each student with the foundation needed for advanced courses in the Business Curriculum. Students should leave the course with valuable information about not only working for or running a business, but how to be a better consumer and get the most from their disposable income.

8423 Financial Record Keeping - Grades 10, 11, 12 (36 wks. 1.0 cr.)

The primary objectives of these courses are to teach students how to produce the source documents necessary to efficiently operate a business. Students will complete checking accounts, budgets, financial statements, journals, and other entry-level accounting entries. Payroll and tax information is also covered in this course. Students are introduced to the world of credit from both a personal and business perspective.

8431 Accounting 1- Grades 11, 12 (36 wks. 1.0 cr.)

These courses are designed to teach students the fundamentals of double- entry accounting. Students will learn the "language" of business while interpreting information from key source documents. Students will learn to journalize this information and then post it to other crucial documents needed by management, owners, and investors. ALL businesses require accurate information and report to various government agencies. The first semester is used to build the foundation. The second semester of the course will continue to build on that foundation, branching out into partnership and corporate accounting. A "practice set" is used to simulate an entire accounting cycle of a real world business. This gives the students an idea of what to expect in the world of business.

8436 Office Procedures - Grades 10,11,12 (18 wks. .5 cr.)

This course helps to bridge the gap between the classroom and the office. The units with simulated projects related to real life situations are designed for study, discussion and application of the topics needed in the rapidly changing business environment.

8441 Business English – Grade 12 (18 wks. .5 cr.)

This twelfth grade required course for business students teaches the individual to be more proficient in the recognition of proper grammar in written communication. Grammar, sentence structure, punctuation, capitalization, vocabulary, spelling and letter writing are covered.

8443 Accounting 2 - Grade 12 (36 wks. 1.0 cr.)

Advanced Accounting continues building on the principles and concepts of Accounting 1. The emphasis in this course is on departmentalized accounting for corporations. Advanced topics include: management accounting, cost accounting, inventory control and valuation, taxation, and various budgets. **Prerequisite: Accounting 1.**

8447 Business Law - Grades 11, 12 (18 wks. .5 cr.)

The purpose of this course is to acquaint the student with the legal problems that are encountered in everyday business dealings, and includes units on contract and insurance.

8448 Project Management – Grade 12 (36 wks. 1.0 cr.)

Through the use of real life projects and a traditional class setting this course examines the classic functions of managers, including planning, organizing, implementing, leading, and controlling as related to the production and marketing of goods and services, with the focus on satisfying the customer creatively, efficiently, and effectively.

8460 Desktop Publishing - Grade 11,12 (18 wks. .5 cr.)

This course will introduce the student to desktop publishing by incorporating text and graphics using a specialized software package to produce professional-quality documents. **Pre-requisites: Computer**

8461 Automated Accounting - Grade 11,12 (18 wks. .5 cr.)

This course is designed to introduce students to automated accounting concepts and techniques. Content development follows the major cycles found in the current textbooks for first and second year accounting. Topics include: General ledgers, accounts receivable, payroll, bank reconciliation, depreciation, inventory and financial statement analysis.

8759 Web Design- Grades 9-12 (18 wks. .5 cr.)

Students will learn a wide range of web design techniques. Students will utilize HTML, Java Script, CSS and Photo Editing software to create multi-page websites.

FOREIGN LANGUAGE – FRENCH

8511 FRENCH 1 (36 wks. 1.0 cr.)

This course is designed to introduce the student to French language and culture through listening, speaking, reading, and writing activities.

8512 FRENCH 2 (36 wks. 1.0 cr.)

The second year course still emphasizes the language and culture through listening, speaking, reading, and writing activities with more in depth grammar.

8531 FRENCH 3 (36 wks. 1.0 cr.)

The third year course continues work on listening, speaking, and reading skills. More advanced grammar is studied with an emphasis on verb tenses and development of writing skills.

8541 FRENCH 4 (36 wks. 1.0 cr.)

The fourth year French course is designed to improve communication skills and to prepare students for college French. Materials covered include advanced grammar and various cultural topics.

FOREIGN LANGUAGE – SPANISH

A passing grade is a prerequisite for advancement to the next level in Spanish

8515 SPANISH 1 (36 wks. 1.0 cr.)

This course is designed to introduce the student to Spanish language and culture through listening, speaking, reading, and writing activities.

8525 SPANISH 2 (36 wks. 1.0 cr.)

The second year course still emphasizes the language and culture through listening, speaking, reading, and writing activities with more in depth grammar.

8535 SPANISH 3 (36 wks. 1.0 cr.)

The third year course continues work on listening, speaking and reading skills. More advanced grammar is studied with an emphasis on verb tenses and development of writing skills.

8545 SPANISH 4 (36 wks. 1.0 cr.)

The fourth year Spanish course is designed to improve communication skills and to prepare students for college Spanish. Materials covered include advanced grammar and various cultural topics.

8548 Dual Enrollment Spanish - Grade 11, 12 (18 wks. .5cr)

Dual Enrollment Spanish offers the benefits of 3 college credits in a small class size environment. Many topics are a review of first and second year Spanish but they will be covered more in depth and at the faster pace of a college level class. Evaluations will be both written and oral. Students will also learn about Hispanic countries and the influence of Hispanics in the United States. Students will strengthen their oral skills as well as prepare them for college level classes.

INDUSTRIAL TECHNOLOGY

- 8713 Drafting 1** (36 wks. 1.0 cr.)
Drawing is the oldest type of written expression and is known the world over. The course begins with sketching, lettering, geometric construction techniques, and orthographic projection. In addition to learning conventional drafting skills, students will be involved with CAD in Drafting.
- 8723 Technical Drafting 2** (36 wks. 1.0 cr.) **Pre-requisite: Drafting 1**
This course will be a continuance of the development and use of CAD. Some of the areas covered will be basic solid modeling, solids from 2D geometry, advanced solid modeling, and wire frame modeling.
- 8733 Technical Drafting 3** (36 wks. 1.0 cr.) **Pre-requisite: Technical Drafting 2**
Students will continue to explore the capabilities of CAD. The student will use CAD to develop working drawings and other drafting projects based on industry standards.
- 8743 Construction Drafting & Design** (36 wks. 1.0 cr.)
Students will learn the principles of residential construction and how to develop a basic set of architectural plans. The CAD system will be utilized in this development. Material estimates will be developed both manually and with the computer. **Pre-requisite: Drafting 1**
- 8745 Woodworking 1** (36 wks. 1.0 cr.)
This course introduces students to woodworking fundamentals as they pertain to furniture making. Instruction will cover hand and power tools. There are classroom assignments, required projects, and students chosen projects. Grading emphasis is on work ethic and quality of work.
- 8747 Woodworking 2** (36 wks. 1.0 cr.)
This course is designed to build on the skills that students gained in the first level course. Students should expect to learn about mass production, design, and fine craftsmanship. The chosen projects are to reflect the advanced artistic nature of the course. Grading emphasis is on work ethic and quality work. **Pre-requisite: Woodworking 1**
- 8721 Metalworking Technology 1** Grades 9,10,11,12 (36 wks. 1.0 cr.)
Students will advance their technological culture and skills by studying and working with metallic substances and related composition. Areas covered will be different types of welding, bench metal, foundry, forging, machining, and CNC machining. Class size limit 15.
- 8725 Metalworking Technology 2 -** Grades 9,10,11,12 (36 wks. 1.0 cr.)
Pre-requisite: Metal Working Technology 1
These courses are a continuation of Metalworking Technology I and II. In these courses students will be able to build upon the basic skills they learned in Metalworking Technology I and II, in hopes of developing their skills for a career related to metals. Advanced projects will be done in order to reinforce skills learned in machining and welding.
- 8731 Small Engines Technology** (18 wks. .5 cr.)
This course concerns the theory and operation of different types of fuel powered engines and the maintenance and repair of small gas engines.
- 8732 Modular Technology Education** (18 wks. .5 cr.)
This course will combine different technology areas such as drafting and fabrication, The design process will be studied, as students will design and fabricate solutions to different problems. The course will also be an introduction to hydraulics, pneumatics, and CNC machining.
- 8741 Carpentry -** Grades 10, 11,12 (36 wks. 1.0 cr.)
These courses are designed for students wishing to learn about the building industry. The class material covers all aspects of residential construction from layout to finish work. This includes but is not

limited to concrete, framing, roofing, and wiring. Students will be involved in discussions, demonstrations and hands-on activities. Much of the work is done outside.

8754 Plastics – Grades 10,11,12 (18 wks. .5 cr.)

Students will learn about the characteristics of different types of plastics along with the different types of plastic forming processes through presentations and hands on experiences. Students will also learn the Nine Step Design loop and how it is used to solve problems.

8755 Electricity – Grades 10,11,12 (18 wks. .5 cr.)

This course introduces the basic theory of electricity—what it is, how it is used, how it is produced, and how it is safely used. Practical aspects such as house wiring and basic electronics are stressed rather than the purely scientific aspects.

8753 Plumbing – Grades 10,11,12 (18 wks. .5 cr.)

This course introduces the basic properties and installation techniques used in plumbing. The course will cover various types of supply and drain lines and pipefittings; interpreting specifications and blueprints to install water distribution, waste, and vent systems; installation of appliances and equipment; and troubleshooting and repair of common plumbing problems. The safe and appropriate use of tools will be stressed throughout the course.

8780 Engineering 1 -(36 weeks, 1.0 credits)

The introduction to engineering course will focus on the basic principles of engineering. Safety and ethics will be covered at the beginning of the course. Through the use of hands-on projects, students will learn problem-solving and teamwork skills as they apply to the engineering field. Additionally, manufacturing and industrial systems will be introduced.

8757 Photography / Graphics – Grades 11, 12 (36 wks. 1.0 cr.)

This course will cover digital photography and graphic design. Digital photography will cover the use of digital cameras and digital photo editing programs. The areas of desktop publishing, vinyl graphics and screen printing will also be covered.

Students are responsible for costs of materials.

8759 Web Design- Grades 9,10,11,12 (18 wks. .5 cr.)

Students will learn how to create and design web pages. Students will use the HTML programming language to create web pages while focusing on good elements of design. A brief introduction to Photoshop will be covered, along with a look at advanced programming techniques.

A passing grade is a prerequisite for advancement to the next level in Carpentry Construction classes.

8761 Carpentry Construction Technology 1- Grades 9,10,11 (36 wks. 1 cr.)

Students will be taught safe handling and operation of hand and power construction tools. Our main focus will be placed on the safe handling and uses of a wide variety of materials. Through the use of hands-on activities students will learn proper building techniques and code requirements along with gaining an appreciation and respect for the construction trades. This is a single period course each semester.

8763 Carpentry Construction Technology 2- Grades 10, 11, 12 (36 wks. 2 cr.)

Students will gain knowledge and skill of framing techniques, roof construction, and exterior finishes. Students will study a variety of materials and their functions. Fabrication installation methods and techniques will be covered with constructive hands on building experiences. In the second semester students will learn basic technical drafting principles, which will include geometric construction and orthographic projection. Students will be introduced to basic masonry and concrete construction. Various principles, styles, and methods will be covered with practical hands on building experiences. **This is a double period class each semester.**

- 8765 Carpentry Construction Technology 3 - Grades 11,12 (36 wks. 2 cr.)**
Students will be introduced to Architectural Drafting with a main focus on plot plans, floor plans, and elevation drawings along with reading and interpreting blueprints. Students will also focus on a more in-depth study of masonry principles and materials. These principles and materials along with their applications will be learned through practical hands on building experiences. In the second semester students will be involved in designing and constructing the layout for a kitchen and bathroom. Cabinetry, countertops, plumbing, electrical, and interior finishing will be covered through practical hands on experiences. **This is a double period class each semester.**
- 8767 Carpentry Construction Technology 4- Grade 12 (36 wks. 2 cr.)**
Students will be involved in site preparation and layout using a transit and reading blueprints. Construction planning, scheduling, and management, along with basic job estimation will be covered. Students in both semesters will be involved in practical hands on building experiences using knowledge and skills acquired throughout the Building Construction Technology curriculum. **This is a double period class each semester.**
- 8769 Carpentry Construction Supervised Lab Experience - (18 wks. .5 cr.)**
Supervised Carpentry Construction experience is made up of planned practical activities that support the development of the skills, tasks and abilities incorporated in the construction curriculum. It is designed to be an extended classroom/work base learning experience related to the industry. The various lab activities will include in-school and after-school projects, college and industry visitations, and SkillsUSA sponsored functions. This is a single period class to be scheduled with carpentry construction class levels 1-4.

INDUSTRIAL TRADES

- 8771 Intro to Shop Skills (18 wks. .5 credit)**
This first semester course will introduce the basic fundamentals of shop safety, hand tools, and power tools. The focus of this course includes basic woodworking and shop projects.
- 8772 Shop Skills (18 wks. .5 credit)**
This second semester course will cover shop safety, hand tools, and power tools. The hands-on component will focus on more complex projects using a wider variety of operations and procedures in metals and wood. **Pre-requisite: Intro to Shop Skills**
- 8773 Shop Maintenance and Repair (18 wks. .5 cr.)**
This one semester course will cover preventative maintenance and repair on shop machinery, the properties of AC/DC motors, diesel engines, hydraulic, pneumatic, and electronic system on machinery, clutches and transmissions, as well as rigging and lifting of heavy load. Also included will be instruction on tool sharpening, electrical repair, and basic fabrication. Students will complete the OSHA 10-hour training for general industry.
- 8774 Industrial Service and Installation (18 wks. .5 cr.)**
This second semester, level two course will cover the manufacturing, fabricating and installation of industrial machinery. Included in this course will be instruction in trouble shooting, problem solving and repairing machines.

FAMILY & CONSUMER SCIENCE

- 8821 Child Development (36 wks. 1.0 cr.)**
During the first 9 weeks, topics will include the family unit, parenting readiness and responsibilities, the challenges of teen pregnancy and single parenthood, and prenatal development. Medical and dietary needs of the pregnant woman will be examined along with environmental hazards to avoid during

pregnancy, such as the effects of drugs, alcohol, and tobacco on the unborn baby. During the second 9 weeks, students will study the decisions and preparations of expectant parents, the process of birth, and care of the newborn. The second semester covers the social, emotional, intellectual, and physical development of infants and toddlers and will begin with the use of the “Baby Think it Over” dolls, which students will care for over a 24-hour period to experience simulated life as a new parent. Students will learn how to form positive relationships with children and develop effective parenting and caregiver skills. Other topics will include preventing accidents and illness, handling emergencies, care of exceptional children, and preventing child abuse and neglect, as well as an overview of possible careers relating to children.

8823 Child Care - Grades 10, 11, 12 (36 wks. 2.0 cr.)

This course will prepare students for a career in a variety of childcare settings. Building on the information covered in Child Development, students will explore the social, emotional, intellectual, and physical development of preschool and early elementary children. They will learn about different types of childcare facilities. They will discover what is needed to establish a child-friendly classroom environment and they will develop skills in story-telling and in presenting art, music, movement, math, and science activities for groups of children. This course continues by giving students the chance to put what they've learned into practice. They will create lesson plans, design bulletin boards, and create other teaching tools needed to operate a laboratory preschool for 2-to 5-year- old children. They will develop communication and management skills and demonstrate good attendance, healthy living habits and a commitment to families and pre-school education. This is a two-period class each semester.

Pre-requisite: Child Development

8835 Introduction to Foods (18 wks. .5 cr.)

This course is an introduction to the skills needed for managing the home kitchen. Topics to be covered include kitchen safety and sanitation, safe food storage, meal planning and preparation, shopping and budgeting, as well as information on food choices and our food supply. Students will have the opportunity to cook in and maintain a typical home kitchen, preparing snacks, main dishes, vegetables, desserts and seasonal items.

8841 Foods & Nutrition – Grades 9-12 (18 wks. .5 cr.)

This upper level course covers the nutritional needs of adolescents and adults in relation to the Food Guide Pyramid. Students will explore the importance of maintaining a healthy lifestyle and making wise food choices. Additional topics to be covered include the role of nutrients, energy and metabolism, weight management, eating disorders, and food and fitness trends. Students will have the opportunity to cook a variety of healthy foods throughout the course.

CULINARY ARTS

A passing grade is a prerequisite for advancement to the next level of Culinary Arts classes.

8833 Culinary Arts 1– Grades 10, 11, 12 (36 wks. 2.0 cr.)

This course is an introduction to a career and technical program that provides students with the essential skills needed for employment in the food service industry and as a foundation for a post-secondary education in Culinary Arts. Topics covered include food safety and sanitation, use and operation of kitchen equipment, and basic culinary skill development. Students will be involved in various culinary events including the retail food program and special functions. **This is a two period class.**

8843 Culinary Arts 2 – Grades 11, 12 (36 wks. 2.0 cr.)

This course builds on the knowledge gained in Culinary Arts 1. Topics covered include advanced culinary skills development, baked goods, product identification and use, menu development and kitchen management. Students will continue to be involved in the retail food program and special catering functions. **This is a two period class. (Pre-requisite: Culinary Arts 1)**

8845 Culinary Arts 3- Grade 12 (36 wks. 2.0 cr.)

This course continues to build on the knowledge gained during the first two years of the program. In addition, students will study dining room service management, international cooking, pastries, and the art of cold food presentation. Students will be assigned leadership roles for the retail food program and be responsible for managing the library coffee café. **This is a two period class. (Pre-requisite: Culinary Arts 2)**

8847 Culinary Arts Supervised Lab Experience- (36 wks. 1.0cr)

Supervised culinary arts experience is made up of planned practical activities that support the development of the skills and competencies incorporated in the Culinary Arts Curriculum. There is no set classroom time for this class. The various lab activities will include in-school and after-school catering functions, working in the student run café, college and industry visitations and SkillsUSA sponsored functions. This is a single period class and is open to second and third year culinary students.

HUMANITIES

8150 Journalism - Grades 10, 11, 12 (36 wks. 5 cr.)

This elective course offers students the opportunity to generate the school newspaper. Students will study basic elements of journalism and newspaper production including the following- journalism ethics; reporting and interviewing; style, editing, and headlines; multimedia and managing websites; social media and digital tools; polls and surveys; and basic design.

Students have the option to take this course in conjunction with Yearbook (courses will be offered on opposite days), but it is not a requirement to do so. **Not for English credit.**

8151 Yearbook - Grades 10, 11, 12 (36 wks. 5 cr.)

This elective course offers students the opportunity to participate in the creation of the Wellsboro High School yearbook. Students will learn how to utilize *Yearbook Avenue* (the yearbook publishing website), take high-quality photographs, write captions and short informative articles, design graphic layouts, conduct interviews, and sell advertising space. Students have the option to take this course in conjunction with Journalism (courses will be offered on opposite days), but it is not a requirement to do so. **Not for English credit.**

8911 9 Music (18 wks. .25 cr.)

This music appreciation course covers the Elements of Music; Voice as an Instrument, Instrument Families and Timbre Classifications; Music History: Medieval, Renaissance, Baroque, Classical, Romantic Periods, Early 20th Century American Music, Jazz; Modern Music: Rock and Roll, Atonal Music and Minimalism, Broadway, Music in Media, Drum Corps, and Music Advocacy. This music appreciation course will help fulfill their Arts and Humanities requirement. Students who do not take band or chorus must take this course.

8941 Teacher Aide Program A - Grade 12 (18 wks. 1.0 cr.)

8942 Teacher Aide Program B - Grade 12 (18 wks. 1.0 cr.)

This program provides an opportunity for students to explore their interest in and aptitude for a teaching career. It provides a realistic experience in working with children for those students who are considering professional level careers in related fields. Students will be assigned to an elementary or middle school teacher for each marking period. Students will also be required to complete weekly assignments in an online course. Excellent attendance is required and will be monitored. **Students must be prepared to arrange their own transportation.**

8951 Band A – Grades 9-12 (18 wks. .25 cr.)

Band A is offered in the first semester to learners who have the ability and interest in playing a standard band instrument as part of a large ensemble. Band members should already have a basic knowledge of a traditional band instrument although new members are always welcome and encouraged (please

see the instructor). Members will cover a variety of musical terms, styles, repertoire, and genre as they relate specifically to performance in band. Lifelong learning and involvement will be stressed. Band Members are required to participate in the winter/Christmas concert and will be graded on that performance. Likewise, members will be required to attend at least 6 graded lessons and take 1 playing proficiency assessment per marking period. The purpose of both of these items is to support musical learning on a more customized level while promoting growth. As a band member you are also eligible for our extracurricular Jazz Band. Please see the instructor if interested. In addition to concert band, ALL instrumental students are strongly encouraged to participate in our Fall field show marching band.

8952 Band B-Grades 9-12 (18 wks. .25 cr.)

Band B is a continuation of Band A, with all requirements being the same, except that students are required to participate in the spring concert plus participate in the Memorial Day, Little League, Pet and Laurel Festival Parade.

8961 Chorus A – Grades 9-12 (18 wks. .25 cr.)

8962 Chorus B – Grades 9-12 (18 wks. .25 cr.)

Chorus is offered to any learner who wishes to sing in a large vocal ensemble. No previous choral experience is necessary, however a cooperative focused attitude is a must. Emphasis is placed on learning good choral literature, building solid vocal technique, acquiring basis musicianship skills, and fostering a sense of ensemble belonging. Throughout the year the Chorus is involved in concerts, which may not be scheduled during the school day, but are graded. Since performance is a vital part of musicianship, members are required to attend all scheduled performances. As a member of the Chorus, you are also eligible for several select ensembles including; Dickens Singers, Men's Chorus, and Women's Choir to further your choral learning and enjoyment. All interested singers should discuss involvement with these ensembles with the instructor.

8969 Music Theory - Grades 10,11,12 (18 wks. .5 cr.)

This course is designed for those students who wish to pursue music as a career objective or for those students who wish to better understand the music, which surrounds them today. To elect this course, the student must be a member of band or chorus. The course will present a survey of music from the Renaissance through the Twentieth Century. Special emphasis will be placed upon basic music theory, analysis of music, sight-singing, and composition.

8008 Freshman Seminar – Grade 9 (36 wks. 1.0 cr.)

Beginning in the 2019-20 school year, all incoming ninth-grade students will take Freshman Seminar during their first year of high school. The course is designed to develop students in a number of ways that help them understand who they are as learners, community members, and friends. The course will be a credit-bearing elective course for students and will provide all students with a faculty mentor who will help to guide them to success in high school and beyond.

8009 Future Seminar – Grade 11 (36 wks. 1.0 cr.)

This course is currently being developed. Will not be offered until 2020-2021

ART

8971 Introduction to Art - Grades 9-12 (18 wks. .5 cr.)

This elective course is open to interested students who seek a general background in the visual arts. The course acquaints the student with basic materials and techniques through the use of drawing, painting, sculpture, graphics and fibers. Basic skills are developed to emphasize the relationships of creative ideas to the product. Students who will continue to study art in college are recommended to

take intro to Art in 9th grade. This will create a path to a successful secondary art education for the art driven student.

8972 Drawing & Painting - Grades 10,11,12 (18 wks. .5 cr.)

This elective course offers further exploration in drawing and painting. The course includes pencil, pen and ink, crayon, chalk pastels, oil pastels, charcoal, or other drawing objects and an introduction to watercolor, tempera, acrylic, and oil painting. Value will be introduced as an important element of design to increase skills in 3 dimensional representations.

Pre-requisite: Intro to Art

8977 Advanced Drawing & Painting - Grades 10,11,12 (18 wks. .5 cr.)

This advanced course offers exploration in drawing and painting. Special techniques in pencil, pen and ink, charcoal, pastels and other drawing objects as well as watercolor, tempera, acrylic and oil painting will be emphasized. The element of design value will continue to be emphasized in most assignments.

Pre-requisite: Drawing and Painting, Intro to Art

8978 Color & Design - Grades 10,11,12 (36wks. 1.0 cr.)

Starting with a review of color theory, the class will explore the full range of creative options combining color and design. Progressing to the basic elements of composition and pictorial structure, students will learn to observe, understand, and solve a wide range of problems on a two dimensional surface utilizing a variety of art materials applicable to the given problem. Ceramics will be included and utilized in creative problem solving through a few assignments. Color and design objectives will be included in ceramic projects. Exploration in clay using hand building techniques in the creation of clay objects both sculptural and functional. Also an introduction to the potter's wheel will be offered for those interested.

Pre-requisite: Intro to Art

8980 Oil Painting - Grades 11,12 (36wks. 1.0 cr.)

This course will be an opportunity to assist the serious art student in learning the basics of oil painting. Students will be taught simple steps to a successful finished piece through a series of oil painting assignments. Various color combinations, subject matter and painting surfaces will be explored. Oil paints are a durable and lasting medium that immortalizes one's vision! Students will research a famous master artist from the past. A short biography and description of the artist's style will be explained along with an oil painting by the student in that artist's style. Students will present their work and research to the class. **Pre-Requisites: Intro to Art, Drawing and Painting and Advanced**

Drawing and Painting

PHYSICAL EDUCATION

PE classes require a change of clothing. Students need a T-shirts, athletic shorts or sweatshirt and sweatpants in addition to sneakers. Lockers are available for students but they must supply their own combination locks.

8985 Personal Fitness - 9 – 12 Grade (18wks. .25 cr.) 1st semester

8986 Personal Fitness – 9 - 12 Grade (18wks. .25 cr.) 2nd semester

Personal Fitness is designed to educate students on the components of fitness and how to apply these components to their fitness habits. The students will learn how to enhance their flexibility, cardio respiratory system, muscular endurance, muscular strength, develop positive attitudes, and responsible fitness habits. This physical fitness class is for those students that want to make a commitment to their physical well-being.

8987 Team Sports - 9 -10 Grade (18 wks. .25 cr.) 1st semester

8988 Team Sports - 9 -10 Grade (18 wks. .25 cr.) 2nd semester

Team Sports include lacrosse, basketball, volleyball, soccer, field hockey, football, and softball plus any other games or adaptations of games deemed appropriate by the instructor. Games will be designed for

indoor as well as outdoor use. Emphasis will be on game playing but skill work will be required if needed. Students can expect to be responsible for learning sports history and some rules for each game. In addition, student involvement will be expected in designing, officiating, and charting tournament play. As always, the instructor has rules for conduct, cleanliness, co-operation, attendance, punctuality, and safety that will be used to determine the student's grade.

8989 Team Sports -11 - 12 Grade (18 wks. .25 cr.) 1st semester

8990 Team Sports -11 - 12 Grade (18 wks. .25 cr.) 2nd semester

Team Sports include lacrosse, basketball, volleyball, soccer, field hockey, football, and softball plus any other games or adaptations of games deemed appropriate by the instructor. Games will be designed for indoor as well as outdoor use. Emphasis will be on game playing but skill work will be required if needed. Students can expect to be responsible for learning sports history and some rules for each game. In addition, student involvement will be expected in designing, officiating, and charting tournament play. As always, the instructor has rules for conduct, cleanliness, co-operation, attendance, punctuality, and safety that will be used to determine the student's grade.

8993 Individual Sport/ Lifetime Activities – 9 – 12 Grade (18 wks. .25 cr.) 1st semester

8994 Individual Sport/ Lifetime Activities – 9 - 12 Grade (18 wks. .25 cr.) 2nd semester

Students will be able to demonstrate the requisite knowledge to be able to lead a physically active lifestyle. Students will engage in activities that they will participate in for the rest of their lives. The course will be comprised of individual and dual activities such as fitness walking, jogging, racquet sports plus any other activities deemed appropriate by the instructor.

8983 Adaptive Physical Education - (36 wks. .50 cr.)

Adaptive Physical Education is for identified students with extreme exceptionalities. The main focus will be on overall fitness development through walks and fitness center work outs. Aerobic stamina, balance, coordination, strength and flexibility components will be targeted. Skills for individual and team sports will be adapted to meet individual needs when necessary.

SCHOOL TO WORK

8100 School-to-Work A -Grade 11,12 (18 wks. .50 cr.)

8101 School-to-Work B – Grade 11,12 (18 wks. .50 cr.)

School-to-Work is designed for students who would like to extend their learning experience into the workplace. Students must apply and go through a competitive interview process with one of the numerous employers that have agreed to participate in the program. Students will be required to work (7) hours a week to receive credit. Students are required to make up all work missed in their regular classes. The employer will determine employee's salary compensation, if any.

Additional requirements for the STW Student are to complete a weekly log check and to complete a daily log.

CAREER AND TECHNICAL EDUCATION CURRICULUM SEQUENCES

The following courses with CIP codes have articulations with PA colleges and some of our programs have articulations with colleges outside of PA. This allows our students opportunities of receiving college credit for courses done while in high school.

Building Construction Technology

CIP 46.9999

Carpentry/Carpenter

CIP 46.0201

Students will be taught the safe handling and operation of hand and power tools. We will be Emphasizing will be on the safe handling and use of a wide variety of building materials. Through the use of hands-on activities,

students will learn proper building techniques and code requirements along with gaining an appreciation and respect for the Construction Trades.

Horticulture and Plant Science

CIP 01.0601

A combination of organized subject matter and practical experiences are used to prepare individuals to produce, process and market plants, shrubs and trees used principally for ornamental, recreational and aesthetic purposes and to establish and manage horticultural enterprises. Students will learn plant physiology, propagation techniques, and landscape and floral design. Students will manage the two greenhouses at the school and will landscape around the school and community.

Ag. General Scope and Sequence

CIP 01.0000

An instructional program that generally describes the principles and practices of agricultural research and production and may prepare individuals to apply such knowledge and skills to the solution of practical agricultural problems. This program includes instruction in basic animal, plant, soil science and mechanization, animal husbandry, plant cultivation, soil conservation and mechanical technology. Instruction may include an emphasis in aquaculture, hydroponics, food science and/or environmental science.

Agricultural Mechanics Scope and Sequence

CIP 01.0201

This is an instructional program that prepares individuals to sell, select, and service agriculture or agribusiness technical equipment and facilities including computers, specialized software, power units, machinery, equipment, structures and utilities. This program includes instruction in agriculture power units, mechanical systems, the planning and selection of materials for the construction of agriculture facilities, safe mechanical practices, water conservation, erosion control, and data processing systems.

Culinary Arts

CIP 12.0508

A three-year program, Culinary Arts provides students with classroom and hands-on experiences in large-scale food production. Students learn about food safety and proper preparation along with managing the school restaurant.

Engineering Technologies/Technician Program

CIP 15.9999

This program prepares individuals to apply knowledge and skills in the engineering field. Instruction includes, but is not limited to, safety, ethics, power, problem solving, teamwork, engineering graphics, automated systems, fundamental electronics, and manufacturing systems as well as adhering to the Science, Technology, Engineering and Mathematics (STEM) Initiative.

Course Descriptions:

Engineering 1 (36 weeks, 1.0 credits)

The introduction to engineering course will focus on the basic principles of engineering. Safety and ethics will be covered at the beginning of the course. Through the use of hands-on projects, students will learn problem-solving and teamwork skills as they apply to the engineering field. Additionally, manufacturing and industrial systems will be introduced.

Engineering 2 (36 weeks, 1.0 credits)

This second-level engineering course will have a more in-depth focus on design processes and materials used in engineering. Students will design and model a solution to an engineering problem. Additionally, the properties of materials and their appropriate uses will be investigated.

Pre-requisite: Engineering 1

Engineering 3 (36 weeks, 1.0 credits)

This third-level engineering course will examine fluid systems, electrical systems, and automated systems as they relate to engineering. Students will examine fluid dynamics and the maintenance of fluid system. Student will learn basic electronics. Additionally, students will learn how machine controls and automated systems are used in engineering.

Pre-requisites: Engineering 2 and Computer Programming

Engineering 4 (36 weeks, 1.0 credits)

This fourth-level engineering course will focus on manufacturing processes and quality control. Students will engage in solving an engineering problem that begins with defining the problem and ends with the development of a manufacturing process to create a solution to the problem. Students will have to consider quality control in their problem solving process. Additionally, students will spend time in this course preparing for the NOCTI exam.

Pre-requisite: Engineering 3; Co-requisite: Applied Business

CAREER AND TECHNICAL EDUCATION ARTICULATION AGREEMENTS

This is an agreement between secondary and postsecondary institutions that allow qualified programs and courses in the secondary to count for postsecondary education credits leading to an industry credential or certificate at the postsecondary level or an associate or baccalaureate degree. If you want to know what schools our programs have articulations with across PA you can look at www.collegetransfer.net. We have some out of state articulations depending on the program. Questions about this please talk with your guidance counselor.

CAREER AND TECHNICAL EDUCATION CURRICULUM SEQUENCES

The CTE Curriculum can prepare students for a smooth transition from our secondary CTE program into a postsecondary education program of study. Students are encouraged to take courses that challenge them and lead them on a pathway to postsecondary success. Technical sequences will meet the minimal technical core area competencies of articulated postsecondary institutions.

**Building Construction Tech.
Carpentry/Carpenter**

**CIP: 46.9999
CIP: 46.0201**

SUBJECT	Grade 9	Grade 10	Grade 11	Grade 12
MATH	Any sequence of four credits of Mathematics.			
ENGLISH (4.0 Credits that meet the graduation requirements of the school district)	9 English or 9 Honors English	10 English or 10 Honors English	11 English or 11 Honors English	12 English or AP English and AP Composition
SCIENCE (4.0 Credits that meet the graduation requirements of the school district)	Keystone Biology I	Keystone Biology II	Chemistry or Physical Science -Chemistry and Physical Science - Physics	Physics or Honors Physics or Conceptual Physics
SOCIAL STUDIES (4.0 credits of social studies that meet the graduation requirements of the school district)	Historical Perspectives I	Historical Perspectives II	Government & Economics Honors Government & Economics	Applied Psychology Dual Enroll Psych Justice Education Sociology Contemporary Affairs Crimes, Criminals & Courts AP Government (Must take 1.0 credit of classes)
HUMANITIES (2.5 credits of arts and humanities including one course in art and one course in music that can be taken any time)	Intro to Art (.5) Music (.25)			
PHYSICAL EDUCATION (2.0 Credits)	Health & Physical Education	Health & Physical Education	Health & Physical Education	Health & Physical Education
TECHNICAL	Building Construction Technology 1 (Single Period) Electricity .5	Building Construction Technology 2 (Double Period)	Building Construction Technology 3 (Double Period)	Building Construction Technology 4 (Double Period)

Possible Occupations: Mason, Drywall Installer, Painter, Electrician, Plumber Contractor, Carpenter

Engineering Technologies/Technician Scope and Sequence (CIP: 15.9999)

Subject – Hours	Grade 9 – Hours	Grade 10 – Hours	Grade 11 – Hours	Grade 12 - Hours
	Engineering 1	Engineering 2	Engineering 3	Engineering 4
	Drafting 1	Drafting 2	Electricity and Plumbing	Small Engines and Shop Maintenance

TECHNICAL – 360 Hours		Computer Programming	Environmental Science	Applied Business
				School to Work
English (4)	9 English or 9 Honors English	10 English; 10 English; or 10 Honors English	11 English; 11 English; or 11 Honors English	12 English; 12 English; or AP English and AP Composition
Math (4)	Any sequence of four credits of Mathematics.			
Science (4)	9 Science or 9 Science	Biology or Biology	Chemistry or Physical Science – Chemistry and Physical Science - Physics	CP Physics or Honors Physics
Social Studies (4)	American History or Honors American History	Honors Government and Economics Government and Economics	World History Honors World History	Applied Psychology Dual Enrollment Psychology Sociology Criminal Fiction Contemporary Affairs Justice Education AP Government
Humanities	Music	Intro to Art		
Physical Education	Health & Physical Education	Health & Physical Education	Health & Physical Education	Health & Physical Education
Required Electives	Computer			

Note: Courses highlighted in grey are courses that will be taught by a teacher with the Technology Education certification.

Horticulture and Plant Science

CIP: 01.0601

SUBJECT	Grade 9	Grade 10	Grade 11	Grade 12
MATH	Any sequence of four credits of Mathematics.			
ENGLISH (4.0 Credits that meet the graduation requirements of the school district)	9 English or 9 Honors English	10 English or 10 Honors English	11 English or 11 Honors English	12 English or AP English and AP Composition
SCIENCE (4.0 Credits that meet the graduation requirements of the school district)	Keystone Biology I	Keystone Biology II	Chemistry or Physical Science	Field Biology Adv. Biology Physics Conceptual Physics Honors Physics
SOCIAL STUDIES (4.0 credits of social studies that meet the graduation requirements of the school district)	Historical Perspectives I	Historical Perspectives II	Government & Economics Honors Government & Economics	Applied Psychology Dual Enrollment Psychology Sociology Crimes, Criminals & Courts Justice Education

				AP Government (Must take 1.0 credit of classes)
HUMANITIES (2.5 credits of arts and humanities including one course in art and one course in music that can be taken any time)	Music (.25)	Intro to Art (.5)		
PHYSICAL EDUCATION (2.0 Credits)	Health and Physical Education	Health and Physical Education	Health and Physical Education	Health and Physical Education
TECHNICAL		Intro to Ag Science Plant Science 1 (mandatory)	Plant Science 2 (mandatory)	Natural Resource Management
TECHNICAL		Keystone Biology I,II FFA\Leadership	Chemistry FFA\Leadership	FFA \Leadership
TECHNICAL (this course will be done outside of school)	Supervised Agricultural Experience	Supervised Agricultural Experience	Supervised Agricultural Experience	Supervised Agricultural Experience

*Foreign Language is recommended but not required. **Possible Occupations:** Plant breeder, Plant ecologist, Plant scientist, Tree surgeon, Park manager, Aqua culturist, Forest ranger, Timber manager, Flower grader, Floral designer, Horticulturist, Hydroponics grower, Beekeeper, Crop farmer, Equipment operator, Forester, Groundskeeper, Landscape architect, Landscape installation, Soil scientist, Tree farmer, Turf grass manager

Ag. General Scope and Sequence

CIP: 01.0000

Subject – Hours	Grade 9 – Hours	Grade 10 – Hours	Grade 11 – Hours	Grade 12 - Hours
TECHNICAL – 360 Hours	Intro to Ag.	Animal/Plant Science 1	Animal/Plant Science I	Shop Skills
	Woodworking 1/Metal 1	Natural Resource Management	Small Gas Engines + Electricity	Carpentry Construction
	SAE	SAE	SAE	SAE
	Leadership	Leadership	Leadership	Leadership
			Drafting	School to Work
English (4)	9 English or 9 Honors English	10 English; or 10 Honors English	11 English; or 11 Honors English	12 English; or AP English and AP Composition
Math (4)	Any sequence of courses that meet PSSA standards	Geometry		
Science (4)	Keystone Biology I	Keystone Biology II	Chemistry or Physical Science – Chemistry and Physical Science - Physics	Physics; Physics; or Honors Physics Field Biology and Advance Biology Plant Science Animal Science
Social Studies (4)	Historical Perspectives I	Historical Perspectives II	Government & Economics Honors Government & Economics	Applied Psychology Dual Enrollment Psychology Sociology Criminal Fiction Contemporary Affairs Justice Education AP Government
Humanities	Music	Intro to Art		

Physical Education	Health & Physical Education	Health & Physical Education	Health & Physical Education	Health & Physical Education
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Agricultural Mechanics Scope and Sequence

CIP: 01.0201

Subject – Hours	Grade 9 – Hours	Grade 10 – Hours	Grade 11 – Hours	Grade 12 - Hours
TECHNICAL – 360 Hours	Intro to Ag.	Leadership/FFA and SAE or NRM	Leadership/FFA and SAE or NRM	Environmental Science
	Woodworking 1 or Intro to Shop Skills	Electricity	Wood I or Wood II	Small Engines and Shop Maintenance
	Drafting	Carpentry Construction I	Metal	Business Management
				School to Work
English (4)	9 English or 9 Honors English	10 English; 10 English; or 10 Honors English	11 English; 11 English; or 11 Honors English	12 English; 12 English; or AP English and AP Composition
Math (4)	Any sequence of four credits of Mathematics.			
Science (4)	Keystone Biology I	Keystone Biology II	Chemistry or Physical Science – Chemistry and Physical Science - Physics	Conceptual Physics; Physics; or Honors Physics Field Biology and Advance Biology Plant Science Animal Science
Social Studies (4)	Historical Perspectives I	Historical Perspectives II	Government & Economics Honors Government & Economics	Applied Psychology Dual Enrollment Psychology Sociology Criminal Fiction Contemporary Affairs Justice Education AP Government
Humanities	Music	Intro to Art		
Physical Education	Health & Physical Education	Health & Physical Education	Health & Physical Education	Health & Physical Education

Culinary Arts

CIP: 12.0508

SUBJECT	Grade 9	Grade 10	Grade 11	Grade 12
MATH	Any sequence of four credits of Mathematics .			
ENGLISH (4.0 Credits that meet the graduation requirements of the school district)	9 English or 9 Honors English	10 English or 10 Honors English	11 English or 11 Honors English	12 English or AP English and AP Composition
		Keystone Biology II		

<p>SCIENCE</p> <p>(4.0 Credits that meet the graduation requirements of the school district)</p>	Keystone Biology I		Chemistry or Physical Science	Field Biology Adv. Biology Physics Conceptual Physics Honors Physics
<p>SOCIAL STUDIES</p> <p>(4.0 credits of social studies that meet the graduation requirements of the school district)</p>	Historical Perspectives I	Historical Perspectives II	Government & Economics Honors Government & Economics	Applied Psychology Dual Enrollment Psychology Sociology Crimes, Criminals & Courts Justice Education AP Gov't (Must take 1.0 credit of classes)
<p>HUMANITIES</p> <p>(2.5 credits of arts and humanities including one course in art and one course in music that can be taken any time)</p>	Music (.25)	Intro to Art (.5)		
<p>PHYSICAL EDUCATION</p> <p>(2.0 Credits)</p>	Health and Physical Education	Health and Physical Education	Health and Physical Education	Health and Physical Education
<p>TECHNICAL</p>		Culinary Arts 1 (Double Period)	Culinary Arts 2 (Double period)	Culinary Arts 3 (Double period)

Possible Occupations: Restaurant Chef, Frontline Server, Specialist in Culinary Departments (example given, Pastry Arts, Cake Decoration) Restaurant Manager, Hospitality Manager, Nutritionist, Cafeteria Manager

Updated 2/5/2019