# PATHWAYS TO SUCCESS BIG SPRING HIGH SCHOOL



# HIGH SCHOOL COURSE SELECTION GUIDE

2023-2024

A Career Pathways Planning & Course Selection Guide For Students & Parents



#### **BIG SPRING SCHOOL DISTRICT**

www.bigspringsd.org
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Newville, PA 17241 (717) 776-2000

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#### **BIG SPRING HIGH SCHOOL**

#### **Administration**

Jason Shover, *Principal*Charles Smith, *Assistant Principal*Joseph Sinkovich, *Assistant Principal*Scott Penner, *Athletic Director* 

#### **School Counselors**

Jocelyn Kraus, *Classes of 2024 and 2027*Adam Oldham, *Class of 2026*Kylie Shaul, *Class of 2025* 

#### **BIG SPRING MIDDLE SCHOOL**

#### **Administration**

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#### **School Counselors**

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#### **MOUNT ROCK ELEMENTARY**

#### **Administration**

Karen Ward, Principal

#### **School Counselor**

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#### NEWVILLE ELEMENTARY

#### Administration

William Wonders, Principal

#### **School Counselor**

Kristen Boles

#### OAK FLAT ELEMENTARY

#### **Administration**

Stacey Kimble, Principal

#### **School Counselor**

Danielle Bingaman

#### NOTICE OF EQUAL OPPORTUNITY

Big Spring School District is an equal opportunity education institution and will not discriminate on the basis of race, color, national origin, sex or disability in its activities, programs or employment practices as required by Title VI, the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, and Section 504 of the Rehabilitation Act of 1973.



#### **BIG SPRING HIGH SCHOOL**

www.bigspringsd.org 100 Mount Rock Road Newville, PA 17241 (717) 776-2000

Dear Big Spring High School Families:

Welcome to planning for the 2023-2024 school year and beyond!

As Big Spring High School educators, our primary expectation is that all of our students will complete a challenging program of study that prepares them to pursue their postsecondary goals and dreams. A critical initiative that supports students' development of their own program of study are our Career Pathways. In Eighth and Ninth grades, students become familiar with the different Pathways. Near the end of the freshman year, students select one of five Career Pathways to help them:

- Focus on a career area that matches their interests, and
- Set goals and discover classes that connect to specific pathways

In the 2023-2024 Course Description Book you will find important information critical to course and Pathways planning:

- Big Spring High School graduation requirements
- Five Pathway Options and related careers for each
- Recommended sequence of courses
- Specific courses of study for each pathway
- Big Spring High School and Cumberland Perry Area Vocational Technical School course offerings and descriptions

Completing a challenging program of study, which includes a pathway or concentration of courses, is the best predictor of increasing student achievement. We look forward to working with our Big Spring students and parents to make these high school years challenging, gratifying, and a solid foundation for students' postsecondary pursuits.

Sincerely,

Jason Shover

Big Spring High School Principal

Jason Shover

#### **TABLE OF CONTENTS**

| Introduction -                | -         | -        | -         | -       | - | - | - | - | - | - | 5  |
|-------------------------------|-----------|----------|-----------|---------|---|---|---|---|---|---|----|
| Profile of a Graduate         | -         | -        | -         | -       | - | - | - | - | - | - | 6  |
| Ten Big Spring Compete        | ency Are  | as       | -         | -       | - | - | - | - | - | - | 7  |
| School Counseling Serv        | ices      | -        | -         | -       | - | - | - | - | - | - | 8  |
| Graduation Requirement        | nts       | -        | -         | -       | - | - | - | - | - | - | 9  |
| <b>Grade-Level Promotion</b>  |           | -        | -         | -       | - | - | - | - | - | - | 9  |
| Statewide High School         | Graduati  | on Requ  | uirement  | ts      | - | - | - | - | - | - | 10 |
| Big Spring Career Pathv       | vays      | -        | -         | -       | - | - | - | - | - | - | 11 |
| Naviance -                    | -         | -        | -         | -       | - | - | - | - | - | - | 12 |
| <b>High School Scheduling</b> | -         | -        | -         | -       | - | - | - | - | - | - | 12 |
| High School Credit Earn       | ied in Mi | ddle Scl | nool      | -       | - | - | - | - | - | - | 12 |
| Schedule Changes              | -         | -        | -         | -       | - | - | - | - | - | - | 13 |
| Course Override Proces        | SS        | -        | -         | -       | - | - | - | - | - | - | 13 |
| Grading System                | -         | -        | -         | -       | - | - | - | - | - | - | 14 |
| Big Spring Honor Roll         | -         | -        | -         | -       | - | - | - | - | - | - | 14 |
| Weighted Classes              | -         | -        | -         | -       | - | - | - | - | - | - | 15 |
| Dual Enrollment               | -         | -        | -         | -       | - | - | - | - | - | - | 15 |
| AP Classes -                  | -         | -        | -         | -       | - | - | - | - | - | - | 15 |
| Calculating GPA               | -         | -        | -         | -       | - | - | - | - | - | - | 16 |
| Late Arrival/Early Dismi      | issal     | -        | -         | -       | - | - | - | - | - | - | 16 |
| Summer School/Failed          | Classes/  | Credit R | ecovery   | -       | - | - | - | - | - | - | 17 |
| Big Spring Diploma Trac       | cking She | eet      | -         | -       | - | - | - | - | - | - | 18 |
| Big Spring Distinguished      | d Diplom  | ia       | -         | -       | - | - | - | - | - | - | 19 |
| NCAA Information              | -         | -        | -         | -       | - | - | - | - | - | - | 21 |
| Course Listings and Des       | scription | S        | -         | -       | - | - | - | - | - | - | 25 |
| Agriculture and               | l Techno  | logy Edı | ucation   | _       | _ | _ | - | _ | _ | _ | 26 |
| Art -                         | -         | -        | -         | -       | - | - | - | - | - | - | 34 |
| Business, Finan               | ce, and I | nforma   | tion Tecl | nnology | - | - | - | - | - | - | 37 |
| Computer Scier                | nce       | -        | -         | -       | - | - | - | - | - | - | 43 |
| English                       | -         | -        | -         | -       | - | - | - | - | - | - | 45 |
| Health and Phy                | sical Edu | ıcation  | -         | -       | - | - | - | - | - | - | 49 |
| Languages for t               |           |          | -         | -       | - | - | - | - | - | - | 52 |
| Mathematics                   |           |          | -         | -       | - | - | - | - | - | - | 56 |
| Music -                       | -         | -        | -         | -       | - | - | - | - | - | - | 59 |
| Science                       | -         | -        | -         | -       | - | - | - | - | - | - | 63 |
| Social Studies                | -         | -        | -         | -       | - | - | - | - | - | - | 68 |
| Cumberland Perry Area         | Career    | and Tec  | hnical Ce | enter   | - | - | - | - | - | - | 73 |
| Annendix A – Table of (       | Ourse O   | omnete   | ncies     | _       | _ | _ | _ | _ | _ | _ | 84 |

#### INTRODUCTION

Earning an education is one of the most important tasks young people have to accomplish as they transition into adulthood. This process becomes progressively more important and often more difficult as students move from middle school into high school.

Big Spring High School offers a broad curriculum with specific elective courses that will, to a large extent, determine the options available to students once they graduate and look for work. Creating a strong academic history that is both challenging and enjoyable will promote personal satisfaction and access to a wider world of opportunity after graduation!

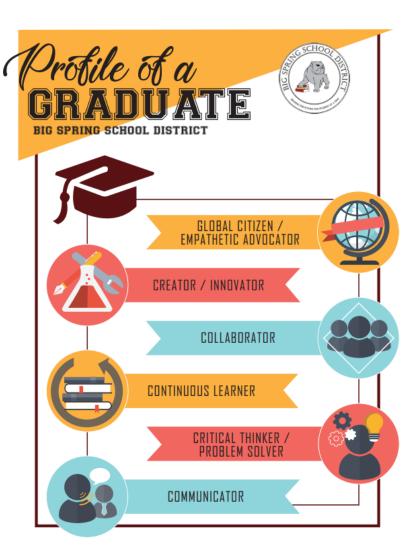
It is important to consider your future goals and dreams as you select courses for next year. The world of work is rapidly changing as existing jobs become more complex and new jobs demand increased levels of education. Career planning is a life-long process that begins with the selection of courses during the high school years.

It is important for all students to think two and three years ahead and consider how this year's course selections might have an impact upon future opportunities.

A decision about your program of studies is not made by you alone. It is a cooperative effort on the part of you the student, your parents, teachers, counselors, and administrators.

Choosing classes, however, is only part of the obligation students must undertake in school. Habits and qualities of character – studying, preparation, participation, hard work, and, above all, disciplined behavior and a positive attitude – are just as important as the classes you take in achieving a well-rounded high school education.





#### WHO ARE BIG SPRING GRADUATES?

The Profile of a Graduate



Big Spring graduates take risks, explore multiple possibilities, challenge the status quo, and seek to continually improve processes and products. They deliberate through a design process to solve problems and act on creative ideas.



Big Spring graduates adapt to varied roles, responsibilities, and contexts, working effectively in a climate of ambiguity and changing priorities. They persist to accomplish difficult tasks and to overcome academic and personal barriers to meet goals.



Big Spring graduates speak and write with clarity, listen actively, and read with comprehension. They know their audience, understand the purpose, choose precise language, and when appropriate, incorporate media to enhance ideas.



Big Spring graduates have an awareness of the responsibilities of contributing individuals in a diverse society. They recognize and respect the differences in values that may exist between themselves and people from other countries or from varying social and cultural backgrounds.

#### COLLABORATOR



Big Spring graduates work effectively, respectfully, and with empathy, both giving and receiving feedback, in a team of differing opinions, skills, and strengths. They assume shared responsibility for work focused on solving a problem or creating a product they otherwise would not be able to do alone.





Big Spring graduates reason effectively in order to identify, define, and solve complex problems and essential questions.

#### WHAT SKILLS DO BIG SPRING STUDENTS DEVELOP IN HIGH SCHOOL?

Ten Big Spring Competency Areas

| Arts and Humanities       | Students are engaged through participation in and appreciation of the arts with the intent that they will become supporters of the arts.   |
|---------------------------|--|
| Communications            | Students are able to articulate thoughts and ideas effectively using oral, written, and nonverbal communication skills in a variety of forms and contexts.   |
| Digital Literacy          | Students will gain the ability to use information and communication technologies to find, collaborate on, evaluate, create, and communicate information, requiring both cognitive and technical skills.  |
| Project-Based<br>Learning | Students will gain knowledge and skills by working for an extended period of time to investigate and respond to an authentic, engaging, and complex question, problem, or challenge. They will be able to demonstrate what they have learned by creating a public product or presentation for a real audience. |
| Global Studies            | Students will learn to recognize and respect the differences in values that may exist between themselves and people from other countries or varying social and cultural backgrounds.   |
| Lab Science               | Students will be engaged in the processes of science and engineering design.   |
| Literature                | Students will employ close reading skills to analyze and discuss a variety of literature, proving their critical thinking skills through performance-based assessments.  |
| Numerical Analysis        | Students will be proficient in using mathematical practices to problem solve and reason effectively.   |
| Research Writing          | Students will be able to conduct research and present their findings in an academic manner.  |
| Wellness                  | Students will be able to transfer learning to lifelong fitness and wellness habits.  |

#### SCHOOL COUNSELING SERVICES

School Board Policy 112

School Counselors at Big Spring High School are available to help students engage successfully in the school setting, to understand their strengths and abilities, and to help them connect these interests with a career path for life after graduation. They can help students define goals and learn about occupational areas. Most important, they wish to help students develop as individuals and to be able to obtain the tools and skills to reach future goals. Students are highly encouraged to meet with their counselors to discuss course selection.

Academic planning is a key component of career planning and as such, Big Spring school counselors encourage students to consider three big questions as they select their courses each year:



Who am I?

What are my unique gifts, talents, and interests?

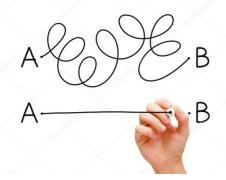


Where am I going?

What kind of lifestyle do I want in my future?



What training/education, skills, and employment do I need to have the lifestyle I want to have?



#### **School Counselor Contact Information**

| Class of 2024 and Class of 2027    | Ms. Jocelyn Kraus    | ikraus@bigspring.k12.pa.us   | 717-776-2429 |
|------------------------------------|----------------------|------------------------------|--------------|
| Class of 2026                      | Mr. Adam Oldham      | aboldham@bigspring.k12.pa.us | 717-776-2428 |
| Class of 2025                      | Mrs. Kylie Shaul     | kshaul@bigspring.k12.pa.us   | 717-776-2466 |
| School Counseling Office Secretary | Mrs. Laurie Miller   | Imiller@bigspring.k12.pa.us  | 717-776-2437 |
| School Counseling Office Secretary | Mrs. Carissa Roberts | croberts@bigspring.k12.pa.us | 717-776-2483 |

#### **GRADUATION REQUIREMENTS**

School Board Policy 217

Utilizing Career Pathways and Core Course Competencies, Big Spring High School is dedicated to combining academic excellence and hands-on learning to provide a comprehensive, personalized, and well-rounded college and career program for all of its students. This individualized plan will allow the student to obtain a high school diploma that meets the needs of each student's post-secondary plan while earning the required 28.0 credits for graduation.

Big Spring High School also offers a <u>Distinguished Diploma</u> for students who participate in Honors/AP/Dual Enrollment courses, world language, and community service (see page 18 for more information).

|                     | 2 Credits of English        |   | Arts and Humanities |
|---------------------|-----------------------------|---|---------------------|
|                     | 2 Credits of Math           |   | Communications      |
| GRADES<br>9 AND 10  | 2 Credits of Science        |   | Digital Literacy    |
| 371112 13           | 2 Credits of Social Studies | 10 COMPETENCY   | Global Studies      |
|                     | 2 Credits of Health/PE      |   | Lab Sciences        |
|                     |                             | (Competencies can be met with Core and/or Elective Courses) | Literature          |
|                     | 8 Core Credits              |   | Numerical Analysis  |
| GRADES<br>11 AND 12 |                             |   | Project Based       |
| 11 /110 12          | Career Project Seminar      |   | Research Writing    |
|                     | Personal Finance            |   | Wellness            |

#### **GRADE LEVEL PROMOTION**

School Board Policy 215

Each year at the high school, students schedule 8 credits that they will earn if they successfully pass all of their classes. In order to be promoted to the next grade level, students must earn a minimum number of credits each year. A total of 28 credits is required to earn a Big Spring diploma, as outlined above.

Credits necessary to move into the next grade level are laid out in this chart.

| Promoted<br>to 10 <sup>th</sup> Grade | 4 credits  |
|---------------------------------------|------------|
| Promoted<br>to 11 <sup>th</sup> Grade | 12 credits |
| Promoted to 12 <sup>th</sup> Grade    | 20 credits |

#### STATE HIGH SCHOOL GRADUATION PATHWAYS

Act 158 of 2018 (Act 158), which was signed into law by Governor Tom Wolf on October 24, 2018, shifts Pennsylvania's reliance on high stakes testing as a graduation requirement to provide alternatives for high school students to demonstrate readiness for postsecondary success. This legislation expands the options for students to demonstrate postsecondary readiness through four additional pathways that more fully illustrate college, career, and community readiness.

Therefore, in addition to earning sufficient credits and meeting all competency areas, <u>students graduating as</u> <u>part of the Class of 2023 and beyond</u> must satisfy one of the five state graduation requirement pathways as outlined below in order to earn a diploma from the Big Spring High School:

| pennsylvania PENNSYLVANIA STATE GRADUATION REQUIREMENT PATHWAYS                          |   |   |  |   |
|--|---|---|--|---|
| Keystone Proficiency Pathway   | Keystone Composite Pathway  | Career and Technical Education<br>Pathway   | Alternative Assessment<br>Pathway  | Evidence Based<br>Pathway   |
| Student passes all three<br>Keystone exams with a<br>score of proficiency or<br>advanced | Student passes at least ONE Keystone exam with proficiency or advanced  AND  Student attains a composite score of at least 4452 | Student passes the Keystone-related courses  AND  Student passes their NOCTI  OR  Student demonstrates "a high likelihood of success to pass their NOCTI" | Student passes the Keystone-related courses  AND  One of the following:  Attainment of an "Established Score" on an approved alternative assessment  ASVAB (31) PSAT (970) SAT (1010) ACT (31)  Gold Level on the ACT WorkKeys Assessment  Attainment of an "Established Score" on an AP/IB exam in academic content area associated with the Keystone exam a student did not pass  Successful completion of concurrent enrollment course in academic content area associated with the keystone exam a student did not pass  Successful completion of concurrent enrollment course in academic content area associated with the Keystone exam a student did not pass  Successful completion of a preapprenticeship program  Acceptance into an accredited 4-year nonprofit institution of higher education and evidence of the ability to enroll in college level work | Student passes the Keystone-related courses  AND  Three Pieces of Evidence  One of the following:  Attainment of an "Established Score" on an ACT WorkKeys assessment, an SAT Subject Test, or AP/IB Exam  Acceptance into "nonprofit, not 4-year college, postsecondary institution" and evidence of the ability to enroll in college level work  Attainment of an industry recognized credential Successful completion of a dual enrollment postsecondary course  AND  Two of the following:  Complete a service learning project Attain a score of proficient or advanced on a Keystone exam Attain a letter guaranteeing full-time employment Certificate demonstrating completion of an internship or a cooperative education program Compliance with the NCAA's core courses for college-bound student athletes with a minimum GPA of |

Keystone Exams will continue as the statewide assessment that Pennsylvania uses to comply with accountability requirements set forth in the federal Every Student Succeeds Act (ESSA). Although a student may not be required to achieve proficiency on the Keystone Exams in order to graduate, students are required to take the Keystone Exams for purposes of federal accountability.

All students will attempt the three Keystone exams, Algebra I, Literature, and Biology, at the conclusion of the semester in which they take the course.

NOTE: The State High School Graduation Requirement Pathways go into effect for the graduating Class of 2023 and beyond.

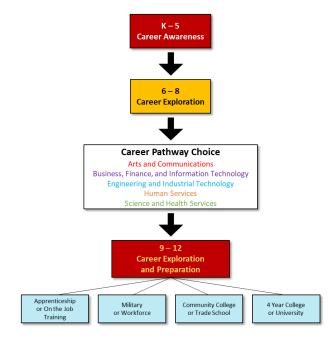
#### **BIG SPRING CAREER PATHWAYS**

To support the career development of our students, the Big Spring School district delivers career awareness, exploration, and preparation activities K-12. As a culminating activity of their K-8 career development, students identify a **career pathway** in 8th grade to support their high school course selection process. Career pathways help students connect course offerings to their personalized areas of interest.

Each of the five (5) career clusters represent major sectors/industries of the workforce and economy. In addition to courses offered in our building, program offerings through the Cumberland-Perry Area Career and Technical School (CPACTC) are also available to students in each of the career pathways.

Students are <u>not</u> obligated to take courses only in a specific career pathway, however as all students have many choices and options for how they complete courses at the Big Spring High School, it is advised that they use their scheduling effectively to explore potential career interests and/or to develop skills and background knowledge necessary to an intended career field.

| BIG SPRING CAREER PATHWAY OPTIONS   |  |   |   |  |
|---|--|---|---|--|
| ARTS AND COMMUNICATIONS   | BUSINESS, FINANCE,<br>AND INFORMATION<br>TECHNOLOGY  | ENGINEERING AND<br>INDUSTRIAL<br>TECHNOLOGY   | HUMAN SERVICES  | SCIENCES AND HEALTH<br>SERVICES  |
| Designed to cultivate students' awareness, interpretation, application and production of visual, verbal and written work. | Designed to prepare students for careers in the world of business, finance and information technology. | Designed to cultivate students' interests, awareness and applications areas related to technologies necessary to design, develop, install or maintain physical systems. | Designed to cultivate students' interests, skills and experience for employment in careers related to human and family needs. | 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. |
|   |  | FOCUS AREAS   |   |  |
| Performing Arts Visual Arts Publishing Arts  Publishing Arts  | Marketing, Sales, and Service     *Finance     *Information Technology     *Business Management        | *Engineering and Engineering Technology *Construction and Architecture *Manufacturing *Transportation, Distribution, and Logistics                                      | Counseling and Personal Care  Education  Law, Public Safety, and Government  Hospitality and Tourism                          | •Health Science •Agriculture, Food, and Natural Resources •Science, Technology, and Math   |



| On the Job Training (OTJ)             | Employer-designed training established for the worker to gain the necessary work skills while he/she is getting paid on the job. Usually these will last weeks to months  |
|---------------------------------------|---|
| Diploma/Certificate<br>Programs       | 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 college, 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.  |
| Apprenticeship<br>Programs            | Industry-based program training works 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.  |
| Associate's Degree<br>Programs        | These are terminal 2-year degrees allowing the person to gain entry-level employment in a specific career. Many times these workers will begin employment after 2 years of school then go on for future degrees at the employer's expense. Typical locations are community and junior colleges. Some technical schools and universities have associate degree programs. |
| Bachelor's Degree<br>Programs         | These are four-year degrees with a combination of general education course work and specific major. They can be liberal arts colleges, private colleges, public colleges, or universities.  |
| Graduate/Professional Degree Programs | These are the post-graduate fields such as law, medicine, and Ph. D or other professional fields, typically 1 to 5 years beyond a bachelor's degree.  |



#### **NAVIANCE**

Electronic Career Portfolios (22 Pa. Code 339)

Naviance is a college and career readiness tool that provides students with college planning and career assessment tools. Naviance's web-based software provides students with a variety of features, including college research and matching tools, career assessment and personality tests, and surveys to help students connect what they are doing in school to what they would like to do once they complete their education.

Every student receives a Naviance account when they enter 6th grade. At the start of each year of high school, students are assigned tasks to complete throughout the year to help them develop their post-secondary plans. These activities are housed in each student's Naviance account, which serves as an electronic career portfolio.

Students who choose to apply to colleges and universities their senior year will use their Naviance portal to request transcripts and letters of recommendation as well. Students who need to use the Common Application to apply to college(s) will match their Naviance account to their Common Application account for a streamlined college application process.

#### HIGH SCHOOL SCHEDULING

Big Spring High School operates on a **Modified Block Schedule**. Periods 1AB, 2, 4 and 5 are 80 minutes in length and Periods 1A, and 1B are 40 minutes in length. Students have a 60-minute block of time during our Flex where they can receive enrichment and/or remediation in their classes.

Students are encouraged to speak with their School Counselor about their plans of study. It cannot be over emphasized that this process requires **collaboration** of all parties, with the primary responsibility falling on the student to help create the most appropriate schedule.

Students will input their course selection requests using their Aspen portal. Each student will meet individually with their school counselor each year in the spring during the scheduling process to ensure that students are taking courses that align with their career plans, as well as making sure students meet all requirements for graduation.

#### HIGH SCHOOL CREDIT EARNED IN MIDDLE SCHOOL

School Board Policy 217

Credits earned at the Big Spring Middle School in courses listed in the High School Course Selection Guide (Algebra I, French I, and Spanish I) will be transferred onto student transcripts. The grade associated with the course at the middle school will not be factored into Grade Point Average (GPA) or class rank. Middle school courses cannot be used to satisfy high school competency requirements. Students successfully completing one of these courses will be able to move onto the next course in the sequence at the high school, and the credit will count as an elective toward their cumulative credit total toward graduation.

#### **SCHEDULE CHANGES**

Students desiring to change their schedule should contact their counselor prior to the beginning of the course. Course changes once a course has begun will require principal approval.

- 1. Schedules will not be changed after the third day of the start of a course.
- 2. Schedules will be changed if the student no longer meets the prerequisite for a scheduled class.
- 3. Schedules may be changed if a student has failed a required class and if the following conditions are met:
  - The student schedules an appointment with his/her counselor.
  - There is "space" available in the desired course. Classes will not be over-allocated to accommodate a student who has failed.
  - There is an available class with a teacher other than the one the student has "failed".
- 4. Schedules may be changed based on teacher recommendations that a student's placement due to their ability to successfully complete the course or if the teacher feels the student belongs in a higher-level course. The following procedures must be followed:
  - The teacher must contact the student's counselor to review the student's educational plan and the effects which would result from any change.
  - The student and parent will be contacted to discuss the recommended change, and if both agree, the change will be made.
- 5. Schedules may be changed if a post high school program requires a certain course for admission or placement.
- 6. Students enrolled at Cumberland-Perry CTC are considered to be enrolled in a yearlong course. Credit will be awarded at the conclusion of the course. As in all classes, partial credit is not awarded.

#### **COURSE OVERRIDE PROCESS**

In order to be successful in specific courses, students must possess a knowledge background and ability level. To aid in the student's success and keep frustration level to a minimum, teachers make recommendations regarding certain sequential courses for all students.

The parent has the right to override the teacher's recommendation. To do this, a parent must obtain and sign a course override form from the counseling office to acknowledge the request for an override.

Signing the form will grant permission for the course to be taken regardless of the recommendation, if there are available seats in the selected course. Please be aware that once this course has begun, the student will be expected to remain in this course for the duration regardless of the degree of success or failure he/she may experience. Schedule changes should occur prior to the beginning of the course. Course changes once a course has begun will require principal approval.

#### **GRADING SYSTEM**

Grades earned in any course shall reflect student fulfillment of academic and other requirements as may be established by the District. Grading is based on straight percentage from 0 to 100 percent. To earn credit for any course, a student is obliged to:

- 1. Fulfill the established course requirements.
- 2. Meet other standards prescribed for the course.

|   | *BIG SPRING HS GRADING SCALE  *GPA is reported on a 4.0 scale* |                  |  |  |
|---|--|------------------|--|--|
| Α | 90-100%  | 4 Quality Points |  |  |
| В | 80-89%   | 3 Quality Points |  |  |
| С | 70-79%   | 2 Quality Points |  |  |
| D | 60-69%   | 1 Quality Point  |  |  |
| F | Below 60%  | 0 Quality Points |  |  |
| I | Incomplete   |                  |  |  |
| Р | Pass   |                  |  |  |
| F |  | Fail             |  |  |

|   | CUMBERLAND PERRY AREA CAREER AND TECHNICAL CENTER GRADING SCALE* |                  |  |  |
|---|--|------------------|--|--|
| Α | 93-100%  | 4 Quality Points |  |  |
| В | 85-92%   | 3 Quality Points |  |  |
| С | 77-84%   | 2 Quality Points |  |  |
| D | 70-76%   | 1 Quality Point  |  |  |
| F | Below 70%  | 0 Quality Points |  |  |

<sup>\*</sup>Students taking classes at CPACTC will earn grades in their shop and social studies classes based on this scale

| MARKING PERIOD AND FINAL EXAM PERCENTAGES OF FINAL GRADE |                    |                       |                       |                      |
|--|--------------------|-----------------------|-----------------------|----------------------|
|  | Quarter<br>Courses | Semester 1<br>Courses | Semester 2<br>Courses | Full Year<br>Courses |
| Quarter 1 (Q1)   | 80%                | 40%                   |                       | 20%                  |
| Quarter 2 (Q2)   | whichever          | 40%                   |                       | 20%                  |
| Quarter 3 (Q3)   | quarter the course |                       | 40%                   | 20%                  |
| Quarter 4 (Q4)   | takes place        |                       | 40%                   | 20%                  |
| Final Exam (E1)  | 20%                | 20%                   | 20%                   | 20%                  |
| Final Grade (F1)   | 100%               | 100%                  | 100%                  | 100%                 |

#### **BIG SPRING HONOR ROLL**

In order to be recognized for the Big Spring High School Honor Roll, the following criteria will be used:

| HONOR ROLL                                | DISTINGUISHED HONOR ROLL         |
|---|----------------------------------|
| Student earns at least Bs in all courses. | Student earns As in all courses. |

#### **WEIGHTED COURSES**

Big Spring High School offers academic courses as Advanced Placement (AP), Dual Enrollment/College, and Weighted Internships in the classroom that provide challenging educational opportunities requiring in-depth research, writing, and advanced study skills. Students are recognized for meeting the academic challenges of these courses with grade weighting.

The following quality point weighting system which utilizes letter grades to report student achievement will be utilized. Final letter grades for courses will be assigned quality point values:

| Quality Points Earned                          | А   | В   | С   | D   | F |
|--|-----|-----|-----|-----|---|
| Academic and Honors Courses                    | 4   | 3   | 2   | 1   | 0 |
| AP/Dual Enrollment/Weighted Internship Courses | 4.5 | 3.5 | 2.5 | 1.5 | 0 |

#### **DUAL ENROLLMENT**

High School juniors and seniors who meet admissions criteria may take college courses sponsored by Harrisburg Area Community College (HACC) and/or Shippensburg University. When the course is completed, a HACC/SHIP transcript records the class, credits and grades earned. Dual enrollment courses are eligible to be considered for transfer to other post-secondary colleges/universities or towards a HACC/SHIP credit bearing degree program. Students may be approved to take dual enrollment courses with other colleges/universities if they have an acceptance letter to that college/university.

These courses will be added to a student's high school transcript and can be counted toward graduation requirements. Pre-approved summer college experiences can also be added to a student's high school transcript, but will not count toward their GPA. Students are limited to enrolling in two (2) dual enrollment courses per semester. Students are responsible for their own transportation.

#### **ADVANCED PLACEMENT (AP) COURSES**

For students interested in earning college credit while in high school, Big Spring currently offers fourteen AP courses to prepare students for AP exams, which can earn college credits for successful completion. Students who plan to take any AP courses are advised to check with their potential colleges of choice regarding acceptance of AP exam scores for credit.

AP US Government and Politics
AP World History
AP US History
AP Psychology

AP Biology
AP Chemistry
AP Environmental Science
AP Physics C – Mechanics

AP English Literature and Composition
AP English Language and Composition
AP Studio Art
AP Music Theory

AP Calculus AB AP Calculus BC AP Statistics

#### **CALCULATING GRADE POINT AVERAGE (GPA)**

School Board Policy 214

The cumulative measure of a student's academic achievement is their Grade Point Average (GPA). A student's GPA only updates each time they complete a course, when credit is earned. To calculate GPA, final course grades are converted into Quality Points. Class rank is determined using cumulative GPA. Weighted classes receive additional Quality Points. This formula is demonstrated below.

| STEP ONE - | - TRANS                               | LATE FINAL COURS   | E GRADES INT | O QUAL | ITY POINT UNITS    |  |  |  |
|------------|---------------------------------------|--------------------|--------------|--------|--------------------|--|--|--|
| Non-       | Non-Weighted Courses Weighted Courses |                    |              |        |                    |  |  |  |
| 90-100%    | А                                     | 4.0 Quality Points | 90-100%      | А      | 4.5 Quality Points |  |  |  |
| 80-89%     | В                                     | 3.0 Quality Points | 80-89%       | В      | 3.5 Quality Points |  |  |  |
| 70-79%     | С                                     | 2.0 Quality Points | 70-79%       | С      | 2.5 Quality Points |  |  |  |
| 60-69%     | D                                     | 1.0 Quality Points | 60-69%       | D      | 1.5 Quality Points |  |  |  |
| <60%       | F                                     | 0 Quality Points   | <60%         | F      | 0 Quality Points   |  |  |  |

| STEP TWO – CALCULATE QUALITY POINTS PER CLASS    |
|--|
| (Course Quality Points ÷ Credit Value of Course) |

| STEP THREE – CALCULATE GPA                           |  |
|--|--|
| (Sum of Quality Points ÷ Sum of Total Credits) = GPA |  |

| SAMPLE STUDENT          |              |               |              |                         |                      |  |  |
|-------------------------|--------------|---------------|--------------|-------------------------|----------------------|--|--|
| Course Name             | Course Grade | Letter Grade  | Credit Value | Quality Points          | Total Quality Points |  |  |
| Concert Band            | 94           | А             | 1            | 4.0                     | 4.0                  |  |  |
| Earth and Space Science | 96           | А             | 1            | 4.0                     | 4.0                  |  |  |
| AP World History        | 89           | В             | 1            | 3.5                     | 3.5                  |  |  |
| Honors Physics I        | 90           | А             | 1            | 4.0                     | 4.0                  |  |  |
| Driver's Ed/PE          | 100          | А             | 0.5          | 4.0                     | 2.0                  |  |  |
| Career Project Seminar  | 92           | А             | 0.5          | 4.0                     | 2.0                  |  |  |
| AP English Literature   | 97           | А             | 1            | 4.5                     | 4.5                  |  |  |
| Honors Spanish IV       | 93           | А             | 1            | 4.0                     | 4.0                  |  |  |
| Honors Pre-Calculus     | 79           | С             | 1            | 2.0                     | 2.0                  |  |  |
|                         |              | Total Credits | 8            | Total Quality<br>Points | 30                   |  |  |

| Total Quality Points | Total Credits | GPA  |
|----------------------|---------------|------|
| 30                   | 8             | 3.75 |

#### LATE ARRIVAL/EARLY DISMISSAL (SENIOR PRIVILEGE)

Students who wish to participate in Senior Privilege Late Arrival/Early Dismissal for the first semester must apply when scheduling in the spring semester of their junior year. Second semester requests must be considered prior to the second semester. Late Arrival takes the place of Period 1AB, and Early Dismissal takes the place of Period 5. Senior students are permitted to arrive late OR leave early under the following criteria for eligibility:

- 1. Students must take and be passing the required number of courses set for graduation according to BSSD Board Policy. Seniors that have not taken or are not passing the required number of courses to graduate will NOT be eligible or will be removed from the program and enrolled into a regular full-day schedule of classes.
- 2. Students must carry a minimum of three (3) credits each semester.
- 3. Student has satisfied the state graduation requirements regarding Act 158 of 2018.
- 4. Parents must give written permission on a Senior Privilege form.
- 5. Transportation to and from school is the responsibility of the student.
- 6. Students must enter and sign-in at the office or sign-out and leave at the office.
- 7. Students who arrive early must report to the library. Students who choose to remain at school after signing-out must indicate on the sign-out form and report to the library.
- 8. Students are not permitted to loiter in the parking lot or any other area of the school.
- 9. Students are responsible for reporting to school at the appropriate time in the event the Bell Schedule is adjusted for weather conditions, testing, etc. Failure to sign-in at the appropriate time will result in an unexcused tardy to school.

#### SUMMER SCHOOL/FAILED COURSES/CREDIT RECOVERY

School Board Policy 124

If a student fails a course required for graduation, the course must be completed before a student can participate in the graduation ceremony and/or receive their diploma. Big Spring School District offers credit recovery courses for students to complete during the summer. The courses offered in summer school will be based, in part, on demand, availability and at the discretion of the administration. Students may not take more than two credits during summer school.

If a student does not make an attempt to recover their missing credits, it may be necessary for that student to return for an additional year of schooling. If a student returns for an additional year to make up failed courses, that student will attend only those classes. Please understand that if a student retakes a course during the school year, the same teacher may be assigned.

Student Name



|                    |             | GRAD       | ES 9 AN  | D 10         |         |                 |
|--------------------|-------------|------------|----------|--------------|---------|-----------------|
| 2 English Course   | s           |            |          | T            |         |                 |
| 2 Social Studies   | Courses     |            |          |              |         |                 |
| 2 Science Course   | es .        |            |          |              |         |                 |
| 2 Math Courses     |             |            |          |              |         |                 |
| 2 PE/Health Cour   | rses        |            |          |              |         |                 |
|                    |             | GRAD       | ES 11 AN | D 12         |         |                 |
|                    |             |            |          |              |         |                 |
| 8<br>Core          |             |            |          |              |         |                 |
| Course<br>Credits  |             |            |          |              |         |                 |
|                    |             |            |          |              |         |                 |
|                    |             | GRADUATION | REQUIRI  | D COURSE     | :S      |                 |
| Career Project Se  | eminar      |            | Pers     | onal Finance |         |                 |
| С                  | OMPETENCIES | ;          | EARNE    | D CREDITS    | DISTING | GUISHED DIPLOMA |
| Arts and Humanitie | es*         |            | 0.1      |              | LANG 1  |                 |
| Communications*    |             |            | · 9th    |              | LANG 2  |                 |
| Digital Literacy*  |             |            | 1011     |              | AP1     |                 |
| Global Studies     |             |            | - 10th   |              | AP 2    |                 |
| Lab Science        |             |            | 1111     |              | AP 3    |                 |
| Literature         |             |            | · 11th   |              | HON 1   |                 |
| Numerical Analysis |             |            | 1246     |              | HON 2   |                 |
| Project Based*     |             |            | · 12th   |              | HON 3   |                 |
| Research Writing   |             |            | Total    |              | HON 4   |                 |
| Wellness           |             |            | Total    |              | HON 5   |                 |
| NOTES              |             |            |          |              |         |                 |



The Distinguished Diploma is ideal for students intending to pursue post-secondary education. This option is designed to build a strong college-ready transcript. Courses toward categories can be achieved at any point between grades 9 and 12.

#### **BIG SPRING DISTINGUISHED DIPLOMA**

#### At Least Two Years of World Language

Students must complete at least two years of the same language (Spanish or French) in the high school level.

\*Language taken at the MS does not count toward this requirement\*

#### Minimum 3.5 GPA

#### **3 AP/College Courses**

#### **5 Additional Honors/AP/College Courses**

#### **Citizenship Hours**

Students must earn 150 total hours, with a maximum of 75 hours in each of these three categories

| SCHOOL  | COMMUNITY  | CAREER   |
|---|--|--|
| Any after-school activity can count toward this category. One season of a school sport/music/theater will count for 75 hours. | Any volunteer work outside of school (can include required club service hours done outside of school). | Work experience connected to the career field a student plans to pursue after graduation can count toward this category. |
| Examples: Athletics, Marching<br>Band, Musical, Theater   | Examples: Youth Group Work,<br>Scouts, Mission Trips, Required<br>Service Hours for Clubs              | Example: Pursuing a career in accounting while working at Cohick and Associates  NOT an Example: Pursuing a              |
|   |  | career in veterinary science while working at Sheetz   |

Tracking your citizenship hours is your responsibility as a student, however your Advisor can be a helpful resource in this process. All hours must be logged using the Citizenship Hours Tracking Forms, which can be turned into your Advisor for safekeeping until your senior year. Once you have achieved all 150 hours, you will submit these tracking forms to your school counselor, with a final deadline of April 30th of your senior year.



# BIG SPRING HIGH SCHOOL CITIZENSHIP HOURS TRACKING FORM

| Student Nar        | ame Grade                   |                          | Grade Level                           | Advisor Name             |
|--------------------|-----------------------------|--------------------------|---------------------------------------|--------------------------|
|                    |                             |                          |                                       |                          |
|                    |                             |                          |                                       |                          |
| Activity Date      |                             |                          | Brief Description of the              | Activity                 |
|                    |                             |                          |                                       |                          |
|                    |                             |                          |                                       |                          |
| 1                  |                             |                          |                                       |                          |
| Hours Participated |                             |                          |                                       |                          |
| School             |                             |                          | Student Signature                     |                          |
| Citizenship Hours  | Citizenship Hours Community |                          |                                       |                          |
| Category           |                             |                          | Activity Supervisor Signature         |                          |
|                    | Career                      |                          |                                       |                          |
|                    |                             |                          |                                       |                          |
| -                  |                             |                          |                                       |                          |
| BIG<br>CI          | SPRING                      | HIGH S<br>S <b>HIP I</b> | CHOOL<br><b>HOURS TRA</b>             | CKING FORM               |
| BIG                | TIZENS                      | HIGH S<br><b>SHIP I</b>  | CHOOL<br>HOURS TRA                    | CKING FORM  Advisor Name |
| BIG CI             | TIZENS                      | HIGH S<br>SHIP I         | HOURS TRA                             |                          |
| BIG CI             | TIZENS                      | HIGH S<br>SHIP I         | HOURS TRA                             |                          |
| BIG CI             | TIZENS                      | HIGH S                   | HOURS TRA                             | Advisor Name             |
| Student Nor        | TIZENS                      | HIGH S<br>SHIP I         | HOURS TRA                             | Advisor Name             |
| Student Nor        | TIZENS                      | HIGH S                   | HOURS TRA                             | Advisor Name             |
| Student Nor        | TIZENS                      | HIGH S<br>SHIP I         | HOURS TRA                             | Advisor Name             |
| Student Nor        | TIZENS                      | HIGH S<br>SHIP I         | Grade Level  Brief Description of the | Advisor Name             |
| Student Nor        | TIZENS                      | HIGH S SHIP I            | HOURS TRA                             | Advisor Name             |
| Student Nor        | TIZENS                      | SHIP                     | Grade Level  Brief Description of the | Advisor Name             |



#### NCAA INFORMATION FOR STUDENT ATHLETES

The NCAA Eligibility Center certifies the (1) academic and (2) amateur credentials of all students who want to play sports in an NCAA Division I or II institution as freshmen. In order to practice, play and receive an athletics scholarship, students need to meet certain academic benchmarks. An additional certification process exists to make sure the student is still an amateur, necessary in order for the student to compete.

The following requirements must be met in order for a student to be able to practice, play and receive a scholarship at an NCAA Division I or II college or university. **NOTE: NOT ALL BIG SPRING COURSES ARE APPROVED COURSES BY THE NCAA.** 

#### Division I:

- 1. Graduate from high school;
- 2. Complete a minimum of 16 core courses;
- 3. Present the required grade-point average (GPA);
- 4. Present a qualifying test score on either the ACT or SAT
- 5. Complete the amateurism questionnaire and request final amateurism certification.

#### <u>Division I Core-Course Breakdown</u> (Courses MUST appear on your list of Approved Core Courses)

- 4 years of English
- 3 years of math (Algebra I or higher)
- 2 years of natural or physical science (including one year of a lab science)
- 1 extra year of English, math, or natural or physical science
- 2 years of social science
- 4 years of extra core courses from any category above or world language

#### **Division II:**

- 1. Graduate from high school;
- 2. Complete a minimum of 16 core courses;
- 3. Present a minimum 2.000 core-course grade-point average (GPA);
- 4. Present a minimum 820 SAT score (critical reading & math only) or 68 sum ACT score qualifying test score on either the ACT or SAT
- 5. Complete the amateurism questionnaire and request final amateurism certification.

#### <u>Division II Core-Course Breakdown</u> (Courses MUST appear on your list of Approved Core Courses)

- 3 years of English
- 2 years of math (Algebra I or higher)
- 2 years of natural or physical science (including one year of a lab science)
- 2 years of social science
- 3 additional years of English, math, or natural or physical science
- 4 years of extra core courses from any category above or world language

#### NCAA CERTIFICATION PROCESS FOR STUDENTS

- In your SOPHOMORE year, log onto <u>www.eligibilitycenter.org</u> to register with the NCAA as a student athlete. This site will remind you of important tasks to complete over the course of your high school studies.
- 2. In your JUNIOR year, register to take the SATs/ACTs and use the NCAA Eligibility Center code "9999" as a score recipient to have your results sent to the NCAA.
- 3. At the END of your JUNIOR year, send an official transcript to the NCAA Eligibility Center using Naviance.
- 4. At the END of your SENIOR year, send an official transcript to the NCAA Eligibility Center using Naviance indicating you have graduated from high school successfully.



#### **BIG SPRING NCAA APPROVED COURSE LIST**

Not all high school classes count as NCAA core courses. Only classes in English, math (Algebra 1 or higher), natural or physical science, social science, foreign language, comparative religion or philosophy may be approved as NCAA core courses.

You can earn credit for a core course only once. If you take a course that repeats the content of another core course, you earn credit for only one of these courses and the higher grade counts toward your core-course GPA.

Remedial classes, credit recovery, and classes completed through credit-by-exam are not considered NCAA core courses.

| ENGLISH                 | МАТН                    | NATURAL/PHYSICAL SCIENCE | SOCIAL<br>STUDIES          | ADDITIONAL<br>CORE* |
|-------------------------|-------------------------|--------------------------|----------------------------|---------------------|
| English I               | Algebra I               | Biology                  | American Studies           | Spanish I           |
| English II Academic     | Algebra II              | AP Biology               | Government                 | Spanish II          |
| English II Honors       | Honors Algebra II       | Chemistry                | Honors Government          | Spanish III         |
| College Prep English    | Geometry                | Honors Chemistry         | AP US Govt and Politics    | Honors Spanish IV   |
| Honors English Veritas  | Honors Geometry         | AP Chemistry             | World Studies              | Honors Spanish V    |
| College Prep Writing    | Pre-Calculus            | Earth and Space Science  | Honors World Studies       |                     |
| College Prep Literature | Honors Pre-Calculus     | Environmental Science    | AP World History           | French I            |
| AP English Literature   | Honors Trigonometry     | AP Environmental Science |                            | French II           |
| AP English Language     | AP Calculus AB          | Physics I                | Intro to Psychology        | French III          |
|                         | AP Calculus BC          | Physics II               | AP Psychology              | Honors French IV    |
| Creative Writing (0.5)  | Statistics              | AP Physics C             | Sociology                  | Honors French V     |
| Public Speaking (0.5)   | AP Statistics           | Anatomy and Physiology   |                            |                     |
|                         |                         | Marine and Ocean Studies | Current Events (0.5)       |                     |
|                         | Computer Sci Principles | Microbiology             | Economics (0.5)            |                     |
|                         | JAVA (0.5)              | Biotechnology            | Geography (0.5)            |                     |
|                         |                         | Intro to Forensics (0.5) | Military History I (0.5)   |                     |
|                         |                         |                          | Honors Military History II |                     |
|                         |                         |                          | Law I (0.5)                |                     |
|                         |                         |                          | Honors Law II              |                     |
|                         |                         |                          | 11011013 2411 11           |                     |

<sup>\*</sup>Additional core courses also include any course listed in the table above



#### BIG SPRING HIGH SCHOOL

## NCAA DIVISION I TRACKING SHEET



| ents mast complete to                                | core courses to be e      | inglote to compete | III NOAA sports of               | aring their in | si yeur ut | u Division i sc |
|--|---------------------------|--------------------|----------------------------------|----------------|------------|-----------------|
| ent Name   |                           | Graduating Year    |                                  | Date Sheet     | Completed  |                 |
|  |                           | Name of Big        | Spring Course                    | Grac           | le Q       | uality Points   |
|  | English 1                 |                    |                                  |                |            |                 |
|  | English 2                 |                    |                                  |                |            |                 |
| 4 Years of English                                   | English 3                 |                    |                                  |                |            |                 |
|  | English 4                 |                    |                                  |                |            |                 |
|  | Math 1                    |                    |                                  |                |            |                 |
| 2 Years of Math                                      | Math 2                    |                    |                                  |                |            |                 |
|  | Math 3                    |                    |                                  |                |            |                 |
| 2 Years of Science                                   | Science 1                 |                    |                                  |                |            |                 |
| (Natural or Physical)                                | Science 2                 |                    |                                  |                |            |                 |
| 2 Years of Social                                    | Social Studies 1          |                    |                                  |                |            |                 |
| Studies  | Social Studies 2          |                    |                                  |                |            |                 |
| 1 Additional Year of<br>English, Math, or<br>Science | Additional 1              |                    |                                  |                |            |                 |
|  |                           | Name of Big        | Spring Course                    | Grac           | le Q       | uality Points   |
| \$2.550 MILES 100 MILES                              | Additional 1              |                    |                                  |                | - a-       |                 |
| 4 Years Total of<br>Additional English,              | Additional 2              |                    |                                  |                |            |                 |
| Math, Science,<br>Social Studies, or                 | Additional 3              |                    |                                  |                |            |                 |
| World Languages                                      | Additional 4              |                    |                                  |                |            |                 |
| To calc  | ulate NCAA GPA,<br>(D1 Ca | use the followi    | ng conversion<br>e 2.3 or higher | for course     | e grades   |                 |
| A = 4 points   | В = 3 ро                  | oints              | C = 2 poin                       | ts             | D          | = 1 point       |
|  |                           | Toto               | al Quality Points                |                |            |                 |
| Тс   | otal Core Course Cre      |                    | 3                                |                |            |                 |
| 500  |                           |                    | ION I NCAA GPA                   |                |            |                 |



#### BIG SPRING HIGH SCHOOL

## NCAA DIVISION II TRACKING SHEET



| dent Name   |  | Graduating Yea | ar                                 | Date Sheet Com | pleted         |
|---|--|----------------|------------------------------------|----------------|----------------|
|   |  | Name of B      | ig Spring Course                   | Grade          | Quality Points |
|   | English 1                                |                |                                    |                |                |
| 3 Years of English  | English 2                                |                |                                    | /              | 2              |
|   | English 3                                |                |                                    |                |                |
|   | Math 1                                   |                |                                    |                |                |
| 2 Years of Math   | Math 2                                   |                |                                    |                |                |
| 2 Years of Science  | Science 1                                |                |                                    |                |                |
| (Natural or Physical)                                       | Science 2                                |                |                                    |                |                |
| 2 Years of Social   | Social Studies 1                         |                |                                    |                |                |
| Studies   | Social Studies 2                         |                |                                    |                |                |
| 3 Years Total of<br>Additional English,<br>Math, or Science | Additional 1  Additional 2  Additional 3 |                | ig Spring Course                   | Grade          | Quality Points |
|   |  | Name of B      | ig Spring Course                   | Grade          | Quality Points |
|   | Additional 1                             |                |                                    |                | 2              |
| 4 Years Total of Additional English,                        | Additional 2                             |                |                                    |                |                |
| Math, Science,<br>Social Studies, or                        | Additional 3                             |                |                                    |                |                |
| World Languages   | Additional 4                             |                |                                    |                |                |
| To calcu  | late NCAA GPA,<br>(D2 Ca                 |                | wing conversior<br>be 2.2 or highe |                | rades          |
| A = 4 points  | В = 3 рс                                 | pints          | C = 2 poir                         | nts            | D = 1 point    |
|   |  |                | otal Quality Points                |                |                |
| Tot   | al Core Course Cre                       |                | ISION II NCAA GPA                  |                |                |



# BIG SPRING HIGH SCHOOL COURSE DESCRIPTIONS

AGRICULTURE AND TECHNOLOGY EDUCATION

ART

BUSINESS, FINANCE, AND INFORMATION TECHNOLOGY

**COMPUTER SCIENCE** 

**ENGLISH** 

HEALTH AND PHYSICAL EDUCATION

LANGUAGES FOR THE 21ST CENTURY

**MATHEMATICS** 

**MUSIC** 

**SCIENCE** 

**SOCIAL STUDIES** 

CUMBERLAND PERRY AREA CAREER AND TECHNOLOGY CENTER

#### **AGRICULTURE AND TECHNOLOGY EDUCATION**

#### AGRICULTURE CLASSES

| 7000           | Small Animal Science  |   | Grades: 9-12  |
|----------------|---|---|---|
| Credits:       | 0.5   | Career Pathways:  | SH  |
| Prerequisites: | None  | Competencies:   | Project-Based   |
| Description:   | This course is designed to introduce stitution handling of small animals as pets. United Classification Systems, Dogs, Cats, Ornand students are expected to analyze the serves as an introduction to the animal about taking care of their own companions. | s covered in this course include:<br>amental Fish, and Exotic Animal<br>he purpose behind the use and<br>I sciences and is designed for the | History of Domesticated Animals,<br>s. This will be a science-oriented class<br>development of animals. This course<br>e student who wishes to learn more |

the future for a career.

| 7010           | Animal Science   |  | Grades: 10-12  |
|----------------|--|--|--|
| Credits:       | 0.5 (Core Credit)  | Career Pathways:   | SH   |
| Prerequisites: | Biology recommended  | Competencies:  | Lab Science, Project-Based   |
| Description:   | participating in the Animal Science exciting hands-on activities, project anatomy, physiology, behavior, no students will acquire skills in meet economical rations. Throughout to | ce course will have experiences in<br>ects, and problems. Students' ex-<br>utrition, reproduction, health, so<br>eting the nutritional needs of an<br>the course, students will consider<br>and world markets. This course | nal science, and career options. Students in various animal science concepts with speriences will involve the study of animal selection, and marketing. For example, imals while developing balanced, er the perceptions and preferences of e requires participation in laboratory and applying knowledge. |

| 7020           | Veterinary Science  |                   | Grades: 11-12              |
|----------------|---|-------------------|----------------------------|
| Credits:       | 0.5 (Core Credit)   | Career Pathways:  | SH                         |
| Prerequisites: | Biology, Animal Science   | Competencies:     | Lab Science, Project-Based |
| Description:   | This course is designed to expose students to provide an overview of basic practices and skills used in veterinary medicine. Students will review livestock, physiology, ruminant microbiology, and small animal care, while learning the skills of dissection, injections, medication dosage, first aid care, routine physical exams and surgical techniques. Industry leadership and business applications will also be included. |                   |                            |
| Special Note:  | This course will have a required la   | b fee of \$10.00. |                            |

| 7030           | Welding  |  |   | <b>Grades:</b>                                | 10-12                        |
|----------------|--|--|---|---|------------------------------|
| Credits:       | 0.5  | Career Pathways:   | EIT   | <u> </u>                                      |                              |
| Prerequisites: | None   | Competencies:  | Project-Based   |   |                              |
| Description:   | This is an introductory study of princoxyacetylene cutting and welding, e course are required to pass all safet permitted). There is equal time sper permitted to design and construct that titude are critical for success in the | electric arc welding, MIG welding, y tests with 100% before working on tin theory and practical instruct heir own projects with provided r | and Plasma Arc C<br>in the shop (multion in this class. S | utting. Stude<br>tiple attempt<br>tudents may | ents in this<br>ts are<br>be |
| Special Note:  | This course will have a required lab   | fee of \$10.00.  |   |   |                              |

| /040           | ivietal Fabrication  |  |   | Grades:                                       | 11-12                    |
|----------------|--|--|---|---|--------------------------|
| Credits:       | 0.5  | Career Pathways:   | EIT, SH   |   |                          |
| Prerequisites: | Welding  | Competencies:  | Project-Based   |   |                          |
| Description:   | This is the final course in metalworking learned in Welding. Students in the contechniques, learning new processes, us one from an assortment of options. Eafabrication procedures, and bill of materials. | urse will continue to advance in<br>ing machines and power tools.<br>ich project includes: completed v | welding and me<br>Students can des<br>working drawing | talworking<br>sign a projec<br>s, list of mat | ct or select<br>terials, |

| 7040           | Living on Your Own   |  | Grades: 9-12  |
|----------------|--|--|---|
| Credits:       | 0.5  | Career Pathways:   | EIT, SH   |
| Prerequisites: | None   | Competencies:  | Project-Based   |
| Description:   | practices while riding an ATV, and help a student to save money no | d install/repair plumbing and ele<br>t only now, but also when they l<br>usly stated items, and create pro | cy while saving money, understand safe ectricity into their home. These activities can become a homeowner. The students will ejects or complete laboratory practices that |
| Special Note:  | This course will have a required                                   | lab fee of \$5.00.   |   |

7050 **Essential Home Projects Grades:** 10-12 Credits: 0.5 Career Pathways: EIT, HS Prerequisites: Living on Your Own Competencies: Project-Based Do you want to learn how to complete easy projects at home? Do you want to be able to answer the

questions "How do I lay tile and laminate flooring? What is the proper way to mix and pour concrete?" If you would like the answers to these questions and more, then this is the course for you. The course will study the principles and practices dealing with drywalling, flooring, concrete/masonry, laying out a square, and basic car maintenance. This course is designed as a hands-on course where class time will be spent constructing projects in the agricultural laboratory.

**Special Note:** This course will have a required lab fee of \$5.00.

Description:

| 7060           | Small Gas Engines   |  | Grades: 10-12  |
|----------------|---|--|--|
| Credits:       | 0.5   | Career Pathways:   | EIT, SH  |
| Prerequisites: | None  | Competencies:  | Project-Based  |
| Description:   | provided with a 3.5 to 6 horses will have the option to work on series. Students will learn engir | oower Briggs and Stratton engine a<br>n a vertical shaft or horizontal shaf<br>ne parts, tools, and the necessary<br>dents are completed with the clas | r of small gas engines. All students will be and all of the necessary tools. The students it engine, including the overhead valve components needed to disassemble and s, they should be able to perform basic |
| Special Note:  | There may be a required lab fe  | ee in the 2023-2024 school year.   |  |

| 7070           | Plant and Greenhouse Science   |  |   | <b>Grades:</b>   | 10-12                        |
|----------------|--|--|---|--|------------------------------|
| Credits:       | 1.0 (Core Credit)  | Career Pathways:   | SH  |  |                              |
| Prerequisites: | None   | Competencies:  | Lab Science   |  |                              |
| Description:   | Do you want to learn how to grow, sell, having fun and earning science credits? more! Plant and Greenhouse Science w greenhouse management, floral design modified plants, and more. The class w projects in the greenhouse. There will be and conducting hands-on labs and expe | This course will provide the ansial involve the study and hands-one of the study and hands-one of the structure of the struct | swers to this que<br>on applications of<br>uctures and biologous<br>vegetable plant | estion and so<br>of basic plan<br>ogy, genetica<br>ts, and other | o much<br>t science,<br>ally |

| 7080           | Fish and Wildlife Management   | t end of the second   | Grades: 9-12  |
|----------------|--|---|---|
| Credits:       | 0.5  | Career Pathways:  | SH  |
| Prerequisites: | None   | Competencies:   | Digital Literacy, Project-Based   |
| Description:   | This course covers four areas in the w<br>students will study various Pennsylva<br>include whitetail deer, black bear, co-<br>wildlife videos, dissect owl pellets, co-<br>great course for students who would<br>conservation has evolved over the ye | nia species that affect our enviro<br>yotes, owls, and more. Througho<br>implete hands-on labs, and partic<br>like to learn more about Pennsy | onment, and some of these species will<br>out the course, students will watch<br>cipate in wildlife activities. This is a |

| 7090           | Food Science and Safety   |   | Grades: 10-12  |
|----------------|---|---|--|
| Credits:       | 1.0 (Core Credit)   | Career Pathways:  | EIT, HS, SH  |
| Prerequisites: | None  | Competencies:   | Lab Science, Project-Based   |
| Description:   | concepts and situations found in the<br>knowledge and technical skills. Stud<br>chemistry, food processing, food pr<br>be highlighted as students develop | e food science and safety indo<br>lents will investigate areas of<br>oduct development, and mar<br>and conduct industry-based i | s, and problems that simulate actual ustry, allowing students to build content food science, including food safety, food keting. Research and sustainable design will nvestigations. The culminating project will any trials and many sampling sessions. |
| Special Note:  | This course will have a required lab  | fee of \$10.00.   |  |

| 7100           | Basic FFA Leadership   |                  | Grades: 9-10   |  |
|----------------|--|------------------|----------------|--|
| Credits:       | 1.0  | Career Pathways: | SH, BFIT, HS   |  |
| Prerequisites: | FFA Advisor Recommendation   | Competencies:    | Communications |  |
| Description:   | Leadership is mapping out where you need to go to "win" as an organization. Through this class, students will conquer their fears of public speaking, develop leadership skills to guide themselves and groups of their peers, analyze leaders of society, master communication, both written and oral, and broaden their knowledge about local and state agricultural issues. Students will study the stages of team work, launch the FFA career, develop a career exploration project, and more. Planning and execution of and involvement in FFA activities will also be part of the grade. |                  |                |  |
| Special Note:  | Students in this course are HIGHLY RI Sophomore FFA officers, but any 9th  |                  | •              |  |

| 7200           | Advanced FFA Leadership   |   | Grades: 11-12   |
|----------------|---|---|---|
| Credits:       | 1.0   | Career Pathways:  | SH, BFIT, HS  |
| Prerequisites: | FFA Advisor Recommendation  | Competencies:   | Communications, Research Writing  |
| Description:   | Do you want to learn how to become understand how to motivate others, participate in an interview, enhance understand their learning style. The course will help any student to bette careers. Involvement in the FFA activ | set goals and improve time man<br>speaking skills, and conduct vario<br>class will also read a leadership or<br>their leadership and teamwork | agement skills, write resumes,<br>ous types of personality surveys to<br>levelopment book and much more! This<br>skills which could be used in future |
| Special Note:  | encouraged to complete the require allow a student to compete or parti  | ements to be an active member<br>cipate at area, state, and nation<br>A Leadership course; the Advanc   | al events. All 9th or 10th grade<br>ced course is only open to 11th or 12th   |

| 7110           | Supervised Agriculture Experience (Record Book)   |                  | Grades: 9-12   |
|----------------|---|------------------|----------------|
| Credits:       | 1.0   | Career Pathways: | SH, HS         |
| Prerequisites: | None  | Competencies:    | Communications |
| Description:   | This course is required for any FFA member who is in one of the FFA Leadership classes, plans to show an animal at the Shippensburg Fair or Farm Show, and would like to obtain their FFA degrees and/or any member who would like to maintain an SAE project. Record keeping skills in budgeting, inventory, receipts, expenses, and net worth will be taught as well as maintaining a daily log. All projects will be evaluated 3 times a year for a grade. |                  |                |
| Special Note:  | Students must turn in their records on the assigned due dates in order to receive a grade and a credit for the class.   |                  |                |

| 7120           | Equine Science (Horses)   |   | Grades: 9-12   |
|----------------|---|---|--|
| Credits:       | 0.5   | Career Pathways:  | SH   |
| Prerequisites: | None  | Competencies:   | Digital Literacy, Project-Based  |
| Description:   | this is the course for you. It will in breeds, the anatomy and nutrition  | clude an introduction to the his<br>n of the species, and the prope | the equine species. If you love horses, then story of horses, classification of various r care and handling techniques. This class is would like to learn more about horses. |
| Special Note:  | This class is an introductory level the class will start at the basic lev | •   | r horse knowledge must understand that o take this course.   |

| 7300           | Intro to Agribusiness  |                              | Grades: 11-12                   |
|----------------|--|------------------------------|---------------------------------|
| Credits:       | 1.0 (Core Credit)  | Career Pathways:             | BFIT, SH                        |
| Prerequisites: | None   | Competencies:                | Digital Literacy, Project-Based |
| Description:   | Introduction to Agribusiness introduces students to business management in agriculture. Mathematics, reading, and writing components are woven in the context of agriculture. Throughout the course are practical and engaging activities, projects, and problems to develop and improve business and employability skills. Additionally, students investigate and develop viable business plans in order to solve local problems. The business plan ideas are communicated to student peers and members of the professional community |                              |                                 |
| Special Note:  | This course fulfills the graduation  | requirement of Personal Fina | nce for seniors.                |

#### **AGRICULTURE AND TECHNOLOGY EDUCATION**

#### TECHNOLOGY EDUCATION CLASSES

| 9000           | Introduction to Drafting   |  | Grades: 9-12   |
|----------------|--|--|--|
| Credits:       | 0.5  | Career Pathways:   | EIT  |
| Prerequisites: | None   | Competencies:  | Digital Literacy, Project-Based  |
| Description:   | This introductory course deals with Students will become familiar with Throughout the course, students with communicate the drafting language CADD (Computer Aided Design and focuses on mechanical drawings sur will be introduced to 3D modeling a | drafting tools, methods, and proce<br>ill develop and practice drafting sk<br>properly. This course will also allo<br>Drafting) with the use of the lates<br>ch as multi-view, isometric, and se | esses, which are used by industry.  cills and techniques in order to  by students to explore the area of |

| 9010           | Civil Engineering                    |   | <b>Grades: 10-12</b>   |
|----------------|--------------------------------------|---|--|
| Credits:       | 1.0 (Core Credit for EIT Pathway)    | Career Pathways:  | EIT  |
| Prerequisites: | None                                 | Competencies:   | Digital Literacy, Project-Based  |
| Description:   | <u> </u>                             | ning, Site Planning, Building Des<br>will be introduced using Autoc | sign, Surveying, Topography, and Bridge<br>desk Civil 3D software. Course Material |
| Special Note:  | This course will have a required lab | fee of \$10.00.   |  |

| 9020           | Sustainability Engineering          |                                      | Grades: 9-12   |
|----------------|-------------------------------------|--------------------------------------|--|
| Credits:       | 0.5                                 | Career Pathways:                     | EIT  |
| Prerequisites: | None                                | Competencies:                        | Communications, Digital Literacy, Project-Based  |
| Description:   | wind power, water filtration, and   | solar fuel cells. Students will also | ering concepts related to solar power, belarn many different ways to implement use through many different hands-on |
| Special Note:  | This course will have a required la | ab fee of \$10.00.                   |  |

| 9030           | Robotics   |  | <b>Grades: 10-12</b>  |
|----------------|--|--|---|
| Credits:       | 1.0 (Core Credit for EIT Pathway)  | Career Pathways:   | EIT   |
| Prerequisites: | None   | Competencies:  | Digital Literacy, Lab Science,<br>Project-Based   |
| Description:   | styles and levels can accomplish goa<br>of new skills. Additionally, students o<br>utilizing block programming through | Is by sequentially working the can advance in their skills to industry standard C++ prog | ed to ensure students with varying learning arough units, gradually increasing application create fully autonomous robotic systems ramming environments. This is a hands-on, to apply learning in creating robots through |

| 9040           | Architectural Design   |   | Grades: 9-12   |
|----------------|--|---|--|
| Credits:       | 1.0  | Career Pathways:  | EIT  |
| Prerequisites: | None   | Competencies:   | Digital Literacy, Project-Based  |
| Description:   | Aided Drafting and Design (CADE course will allow students to exp and construction. After completing | o) components of architectural d<br>lore the various components that<br>ng the course, the students will<br>have completed sets of resident | donents, drafting techniques and Computer lesign. By using the design process, this at are involved in the overall house planning leave with a general understanding of ial home floor plans created with AutoDesk e used in the architecture field. |
| Special Note:  | These floor plans can be used in   | a college application portfolio   | for prospective architecture students.   |

| 9050           | Electronics   |  | <b>Grades: 10-12</b>   |
|----------------|---|--|--|
| Credits:       | 1.0 (Core Credit for EIT Pathway)   | Career Pathways:   | EIT  |
| Prerequisites: | None  | Competencies:  | Digital Literacy, Lab Science,<br>Project-Based  |
| Description:   | supplies, power generation and distrib<br>equipment and supplies used in this co<br>and problem-solving activities will exp | onents, testing, electromagnetism<br>oution. Students will learn the sa<br>ourse plus information on career<br>ose students to areas of electron<br>ts. Participation in Technology St | m and inductance, capacitance, power<br>fe use of the tools, test instruments,<br>opportunities in this field. Hands-on<br>on theory, Ohm's Law, insulators,<br>tudent Association (TSA) would help to |

| 9060           | Engineering Design  |                  | Grades: 10-12  |
|----------------|---|------------------|--|
| Credits:       | 1.0 (Core Credit for EIT Pathway)   | Career Pathways: | EIT  |
| Prerequisites: | Introduction to Drafting  | Competencies:    | Digital Literacy, Project-Based  |
| Description:   | This course will allow students to have a greater understanding of the overall design process and how engineering plays a fundamental role incorporating drafting communications. This class provides students the opportunity to work with advanced features of AutoCAD and Inventor software packages to design an create 3D models and 3D printed projects. Additionally, students will be applying engineering principles to hands-on problem-solving activities and product development projects incorporating "real world" constraints to the design process. |                  | nmunications. This class provides students d Inventor software packages to design and s will be applying engineering principles to |
| Special Note:  | This course will have a required lab  | fee of \$10.00.  |  |

| 9070           | Wood Technology   |  | Grades: 9-12  |
|----------------|---|--|---|
| Credits:       | 0.5   | Career Pathways:   | EIT   |
| Prerequisites: | None  | Competencies:  | Project-Based   |
| Description:   | technology. Students receive instruhabits and attitudes, custodial laborequired to successfully plan and co | uction in the following: machine<br>bratory maintenance, and the pronted in the properties in the properties in the properties in the problem solving and versions are versions. | iation of problem solving in woodworking<br>t, tool, and personal safety, correct working<br>roper use of materials, tools, and processes<br>the allotted course time. Emphasis is<br>woodworking skills necessary for good<br>y construction begins. |
| Special Note:  | Cost per student for materials use  | d in required projects is \$20.00  | -\$30.00.   |

9080 **Wood Production Grades:** 10-12 Credits: 0.5 Career Pathways: EIT Prerequisites: Wood Technology Competencies: Project-Based This is the final course in woodworking technology. Students at this level are expected to apply advanced woodworking techniques learned in Wood Technology. Students in the course will continue to advance in wood working techniques learning new processes using machines and power tools. Students can design a Description:

project or select one from an assortment of options. The project includes: completed working drawings, list

of materials, construction procedure, board foot and cost computations. Students will pay for their material before work can begin.

9090 Structural Engineering Grades: 10-12
Credits: 1.0 (Core Credit for EIT Pathway) Career Pathways: EIT

Prerequisites: None Competencies: Project-Based

Students will develop a basic understanding of the design and behavior of structures. Through laboratory activities, students will learn how structures are designed, why certain materials are used, how structures withstand loads, and the impacts of structures on societal, biological, and technological systems.

Special Note: This course will have a required lab fee of \$10.00.

9100 **Design and Innovation Workshop** 9-12 Grades: Credits: 0.5 Career Pathways: **EIT** Prerequisites: None Competencies: Communications, Project-Based This "Makerspace" course will consist of separate units that aim to move the student from more prescribed, controlled projects to open-ended, self-initiated work. The first few weeks aim to introduce students to the space, the materials, and some basic skills that will be useful in all future projects. The majority of the year Description: will be spent with the students doing self-guided work. The philosophy behind this is that we want students to take ownership of their work, and thereby become genuine problem-solvers. At the same time, we recognize that certain skills need to be taught, and certain protocols need to be learnt when using tools in a makerspace.

Special Note: This course will have a required lab fee of \$10.00.

9120 **Grades:** 10-12 SkyOp Drones Credits: 1.0 Career Pathways: EIT Project-Based Prerequisites: None Competencies: SkyOp's Drone Training Curriculum takes high school juniors and seniors from beginners to FAA-certified commercial drone pilots, ready to do aerial imaging, data collection, and autonomous flight programming. Our unique and proven curriculum includes: Intro to Drones: Students will receive a basic overview of drones, how they function and fly, while also learning to fly effectively without GPS, and discuss how drones are currently being deployed for commercial and public safety use. Description: Part 107 Test Prep: Students will gain an understanding of the safety and operational requirements necessary to successfully complete the FAA Unmanned Aircraft - General test and become fully-licensed drone pilots. Hands-On Drone Flight Training – DJI Phantom 4 Pro: Students will receive comprehensive outdoor flight training on the versatile DJI Phantom 4 Pro including all of its advanced features.

• Intro to Autonomous Drone Apps with Hands-On Flight Training: Students will learn to program autonomous missions, becoming proficient in the execution of the autonomous flight protocols which enable many commercial drone deployments.

Special Note: Students must be 16 years of age as of September 1st to be eligible for the class. Students will have the option to take the FAA Drone Certification exam upon completion of the course.

| 9130           | Honors Technology Education  | <b>Grades: 11-12</b>  |   |
|----------------|--|---|---|
| Credits:       | 1.0 (Core Credit for EIT Pathway)  | Career Pathways:  | EIT   |
| Prerequisites: | 3 previous Technology Education courses  | Competencies:   | Digital Literacy, Lab Science,<br>Project-Based |
| Description:   | opportunity to apply all that you have your learning, stretch your potential, work of the Capstone Course consists and presentation. The goal is to choo | e learned in the four years of<br>and challenge your abilities<br>s of four major pillars: resea<br>se a topic of interest to you<br>been curious about or choo | osing something you know a little bit about     |

### **ART**

| 7500           | The Visual Experience   |                       | Grades: 11-12                            |
|----------------|---|-----------------------|--|
| Credits:       | 1.0 (Core Credit for AC Pathway)  | Career Pathways:      | AC                                       |
| Prerequisites: | "B" average or higher overall GPA recommended   | Competencies:         | Arts and Humanities,<br>Research Writing |
| Description:   | This course is not an art making course, rather it is an exploration of how art has developed and influenced our visual world. The course will start with an overview of artistic concepts, time periods, and art movements. Students will participate in research and discussions throughout the course that explore the relationships of art and history. |                       | c concepts, time periods, and art        |
| Special Note:  | Highly recommended as a prerequisi  | te for AP Studio Art. |  |

| 7605           | AP Studio Art   |  | <b>Grades: 11-12</b>   |
|----------------|---|--|--|
| Credits:       | 1.0 (Core Credit for AC Pathway)  | Career Pathways:   | AC   |
| Prerequisites: | "B" average or higher in Honors Drawing<br>and Painting II is recommended; The<br>Visual Experience is also recommended   | Competencies:  | Arts and Humanities, Project-Based   |
| Description:   | This is the fourth and final level that is a culmination of the drawing and painting skills from the first three levels. The course is based on the requirement of completing a portfolio that will be submitted to AP for scoring. The Portfolio has two main components: Selected works (work that shows the application of skills) and the Sustained Investigation (work on a theme or topic that shows practice, experimentation, and revision). The semester will be spent working on the Sustained Investigation portion of the portfolio requirements in an independent study environment. |  |  |
| Special Note:  | course is weighted .5 for a cumulative after the semester is over. There will   | e GPA calculation. There may l<br>be a fee for the portfolio revie | ed in AP courses take the AP Exam. This be work that needs to be completed ew in May (similar to the AP Exam fee). Inted supplies are available for purchase |

| 7600           | Drawing and Painting I   |                                    | Grades: 9-11                       |
|----------------|--|------------------------------------|------------------------------------|
| Credits:       | 1.0  | Career Pathways:                   | AC                                 |
| Prerequisites: | None   | Competencies:                      | Arts and Humanities, Project-Based |
| Description:   | This entry level course will focus on basic drawing and painting skills. The course will begin with learning about drawing from observation and progress into exploring new media including: pencil, charcoal, colored pencil, oil pastel, and paint. Students will work on projects that focus on sighting and proportions, value, facial proportions and portraits, and basic color theory and brush techniques. |                                    |                                    |
| Special Note:  | Prerequisite course for Drawing &  | Painting II. Materials fee of \$10 | - \$20 for the course.             |

| 7620           | Drawing and Painting II  |                                    | <b>Grades: 10-12</b>   |
|----------------|--|------------------------------------|--|
| Credits:       | 1.0  | Career Pathways:                   | AC   |
| Prerequisites: | Drawing and Painting I; "C" average recommended  | Competencies:                      | Arts and Humanities, Project-Based   |
| Description:   | This second level course that will continue to focus on drawing and painting skills. The course will start with review of drawing skills from level 1. Additionally, the course will progress to more advanced drawing skills and exploring new media including acrylic paint and chalk pastels. Students will work on projects that focus on drawing ellipsis and perspective, landscapes, working with reflections, and ending with a student choice painting. |                                    | ress to more advanced drawing skills<br>dents will work on projects that focus |
| Special Note:  | This course is for students who are se<br>Prerequisite course for Honors Drawin<br>course if students do not already have  | ng and Painting III. Materials fee |  |

| 7630           | Honors Drawing and Painting III  |                                  | <b>Grades: 11-12</b>   |
|----------------|--|----------------------------------|--|
| Credits:       | 1.0  | Career Pathways:                 | AC   |
| Prerequisites: | Drawing and Painting II; "B" average recommended   | Competencies:                    | Arts and Humanities, Project-Based   |
| Description:   | This is a third level course that continues building drawing and painting skills. The course will begin with a review of skills for level 1 and 2, Additionally, the course will progress to more advanced drawing skills using previous media and exploring the new medium of Gouache. Students will work on projects that focus on advanced perspective techniques, composition, symbolism, painting from observation, and expressive portraits. |                                  | to more advanced drawing skills using<br>will work on projects that focus on |
| Special Note:  | Prerequisite course for AP Studio Art do not already have the supplies.  | . Materials fee of approximately | \$30 - \$40 for the course if students                                       |

| 7700           | Sculpture I   |                  | Grades: 10-12   |
|----------------|---|------------------|---|
| Credits:       | 1.0   | Career Pathways: | AC  |
| Prerequisites: | None  | Competencies:    | Arts and Humanities, Project-Based  |
| Description:   | This entry level course will focus on constructing three-dimensional works using multiple sculptural skills an techniques. The course will begin with learning about sculptural techniques and progress into exploring new media including: clay, plaster, wire, cardboard and found objects. Students will work on projects that focus on modeling, carving, casting, construction, and assemblage to create final pieces. |                  | techniques and progress into exploring new s. Students will work on projects that focus |
| Special Note:  | Prerequisite course for Sculpture   | II.              |   |

| 7720           | Sculpture II   |                  | Grades: 11-12                      |
|----------------|--|------------------|------------------------------------|
| Credits:       | 1.0  | Career Pathways: | AC                                 |
| Prerequisites: | Sculpture I; "C" average recommended   | Competencies:    | Arts and Humanities, Project-Based |
| Description:   | This second level course will continue to focus on constructing three-dimensional works using multiple sculptural skills and techniques. The course will start with a review of skills from level 1. Additionally, the course will progress to new media including plastercraft. Students will work on projects that focus on geometric form construction, self-portrait, and student choice pieces. |                  |                                    |

| 7800           | Ceramics I                          |  | Grades: 9-12   |
|----------------|-------------------------------------|--|--|
| Credits:       | 0.5                                 | Career Pathways:   | AC   |
| Prerequisites: | None                                | Competencies:  | Arts and Humanities, Project-Based   |
| Description:   | while using clay. The course will b | egin with learning about basic de<br>vith finishes for final piece. Studer | works using basic hand building skills sign skills, the handbuilding techniques of onts will work on projects that use the citional and decorative pieces. |

| 7820           | Ceramics II   |                  | <b>Grades: 10-12</b>               |
|----------------|---|------------------|------------------------------------|
| Credits:       | 1.0   | Career Pathways: | AC                                 |
| Prerequisites: | Ceramics I; "C" average recommended   | Competencies:    | Arts and Humanities, Project-Based |
| Description:   | This second level course that will focus on teaching wheel throwing techniques using clay. The course beging with basic wheel throwing skills such as centering and throwing, and continues with throwing more advanced forms. Students will be required to throw a collection of pieces that are functional (microwave are dishwasher safe). |                  | ontinues with throwing more        |

| 7900           | Digital Photography I   |  | Grades: 9-12   |
|----------------|---|--|--|
| Credits:       | 0.5   | Career Pathways:   | AC   |
| Prerequisites: | None  | Competencies:  | Arts and Humanities, Project-Based, Digital Literacy |
| Description:   | This entry level course will focus on basic photographic skills that apply to any type of camera. The course will begin with a review of basic art concepts, compositional techniques, lighting techniques, digital photo editing, and digital file organization. Students will complete shooting assignments that practice these skills and capture quality digital photographs. |  |  |
| Special Note:  | with digital files. It is also camera, Point & Shoot car  | d that you have a basic understanding strongly recommended that you have a mera, or DSLR camera) of your own, as are available for sign out if needed. |  |

| 7920           | Digital Photography II  |                                 | Grades: 10-12  |
|----------------|---|---------------------------------|--|
| Credits:       | 1.0   | Career Pathways:                | AC   |
| Prerequisites: | Digital Photography I; "C" average recommended  | Competencies:                   | Arts and Humanities, Project-Based,<br>Digital Literacy                |
| Description:   | This second level course will continue to focus on photographic skills, but will require the use of a DSLR or Mirrorless camera. The course will begin with a review of level 1 concepts and introduce the DSLR and it's features and students will complete shooting assignments that practice using aperture, shutter speed, and advanced lighting techniques using the DSLR. In the second half of the semester, students will work on independent projects that will be assembled into a website portfolio with the assistance of a guest instructor. |                                 |  |
| Special Note:  | You will have access to school DSLR<br>DSLR or Mirrorless camera for the cl<br>CAMERAS WILL NOT BE ACCEPTABLE   | ass (if it meets the minimum re | for the class or you can use your own quirements for class). CELLPHONE |

# **BUSINESS, FINANCE, AND INFORMATION TECHNOLOGY**

| 5300           | Career Project Seminar  |                  | Grades: 11   |
|----------------|---|------------------|--|
| Credits:       | 0.5   | Career Pathways: | This course is required for                                  |
| Prerequisites: | None  | Competencies:    | graduation; all students must successfully pass this course. |
| Description:   | This course helps students choose a career path they are interested in pursuing and research the necessary preparation. Students will complete an interest Inventory and personality survey to determine careers suited to them, and will develop a resume and cover letter tailored to that career. Students will reinforce the experience by participating in a job shadow and mock interview in that career. |                  |  |
| Special Note:  | This course is required for graduation job shadow at their current place of   | · ·              | pass this course. Students may not                           |

| 5400           | Personal Finance                  |                                    | <b>Grades: 11-12</b>   |
|----------------|-----------------------------------|------------------------------------|--|
| Credits:       | 0.5                               | Career Pathways:                   | This course is required for  |
| Prerequisites: | None                              | Competencies:                      | graduation; all students must<br>successfully pass this course.  |
| Description:   | will learn how to set financial g | oals, budget their money, save and | effectively manage their money. Students d invest their money, understand insurance, d distinguish between the different sources |
| Special Note:  | This course is required for grad  | duation; all students must success | fully pass this course.  |

| 5020           | Marketing and Advertising                          |  | <b>Grades: 10-12</b>  |
|----------------|--|--|---|
| Credits:       | 0.5 (Core Credit for BFIT Pathway)                 | Career Pathways:   | AC, BFIT, HS  |
| Prerequisites: | None   | Competencies:  | Digital Literacy  |
| Description:   | advertisement we witness. This cours               | e will introduce students to bas<br>anning, advertising and promot<br>rk Tank®, Flo the Progressive La | me, every person we talk to and every sic marketing terminology and concepts ing, and selling. Dynamic examples such dy, Jake from State Farm, and many |
| Special Note:  | An emphasis is placed on group work group setting. | and a majority of the class gra  | ade will require students to work in a  |

| 5090           | Business 101  |   | Grades: 9-10                               |
|----------------|---|---|--|
| Credits:       | 1.0   | Career Pathways:  | BFIT                                       |
| Prerequisites: | None  | Competencies:   | Communications, Project-Based              |
| Description:   | to learn the key principles ethics, and teamwork thro | elevates students of all areas. Join this high<br>and components of business and leaders<br>ugh an array of self-discovery and mento<br>lored such as business types, structures, | ored activities. Additionally, entry level |
| Special Note:  | represented at many high component of this class. C   | schools all over the country and the wo   | will be \$25.00. Travel and outside-the-   |

| 5030           | Retail Management  |  | Grades   | s: 9-12          |
|----------------|--|--|--|------------------|
| Credits:       | 1.0  | Career Pathways:   | AC, BFIT, HS   |                  |
| Prerequisites: | None   | Competencies:  | Project-Based  |                  |
| Description:   | This course will teach the concepts school store during and after school merchandise for the student body univentory, market products, make properate the Square Point of Sale system. | II, fulfilling online orders, and or<br>using a Cricut and heat press. St<br>purchasing decisions, order mer | rdering and designing apparel<br>tudents will learn how to man<br>rchandise to be sold, price me | and other<br>age |

| 5040           | Exploring Presentations |   | Grades: 9-12                     |
|----------------|-------------------------|---|----------------------------------|
| Credits:       | 0.5                     | Career Pathways:  | AC, BFIT, EIT, HS, SH            |
| Prerequisites: | None                    | Competencies:   | Communications, Digital Literacy |
| Description:   | •                       | excite their audience with the ne<br>sentations and learning how to po<br>vice Announcement, Ted Talk, an | nd Pecha Kucha. Students will be |

| 5050           | <b>Event Planning</b>  |   | Grades:   | 9-12                         |
|----------------|--|---|---|------------------------------|
| Credits:       | 0.5  | Career Pathways:  | AC, BFIT  |                              |
| Prerequisites: | None   | Competencies:   | Project-Based   |                              |
| Description:   | have a lot of energy, are comfo<br>well organized, can handle mu | ottest new fields available to peoplortable with self-promotion, enjoy lti-tasking and have an eye for detage of event planning. It will also expense does. | talking to and socializing with str<br>ail will enjoy this career. This cou | angers, are<br>rse will give |

| 5080           | Sports and Entertainment Mar   | Grades: 9-10  |                             |
|----------------|--|---|-----------------------------|
| Credits:       | 0.5  | Career Pathways:  | BFIT                        |
| Prerequisites: | None   | Competencies:   | Project-Based               |
| Description:   | The field of sports and entertainment this course and are intended to be a gand entertainment. The course will for entertainment event. Students will be | guide in taking your first career socus on the management side of | running a sports team or an |

| 5100           | Fundamentals of Accounting            |                              | Grades: 10-12   |
|----------------|---------------------------------------|------------------------------|---|
| Credits:       | 1.0 (Core Credit for BFIT Pathway)    | Career Pathways:             | BFIT, HS  |
| Prerequisites: | None                                  | Competencies:                | Numerical Analysis  |
|                | _                                     |                              | e degree in business or who plan on owning I be introduced to accounting principles and |
| Description:   | · · · · · · · · · · · · · · · · · · · | nts of a business. Additiona | ng cycle through analyzing and interpreting llly, students will learn about accounting  |

| 5200           | INCubatoredu   |  | <b>Grades: 10-12</b>  |
|----------------|--|--|---|
| Credits:       | 1.0 (Core Credit for BFIT Pathway)   | Career Pathways:   | AC, BFIT, EIT, HS   |
| Prerequisites: | None   | Competencies:  | Project-Based   |
| Description:   | experts will serve as coaches and mer research, and business plan developm marketing, accounting, human resour | op their own product or service.<br>Intors guiding student teams through<br>Interest of the year<br>Interest of year<br>Interest of<br>Interest of | Real-world entrepreneurs and business ough the process of ideation, market r, student teams will learn about of running a business to get them investors to pitch their innovative idea |
| Special Note:  |  | <ul> <li>Students interested in taking<br/>pay the course fee. This course</li> </ul>  | <u> </u>  |

## CAREER INTERNSHIP OPPORTUNITIES

These opportunities are coordinated by the Business Department. Students can earn credit for participation. Speak with Mrs. Powell for more information. Internships can count as a Project-Based Competency.

#### C600 Career Internship

Description:

This program is a supervised, paid or non-paid occupational experience at a school-approved site. Students are given the opportunity to explore their intended career field to gain a better understanding and appreciation of the field and to help make more informed decisions regarding career choices and post-secondary education. Transportation and related costs of participation are the student/parent's responsibility.

#### C509 Art Exploration Program

Description:

This program is exploration with Carlisle Area art and design-related businesses. Students spend one quarter exploring various careers and business opportunities that are offered by the businesses. Based on a final evaluation of the student's work ethic during the exploration, they may be offered an additional quarter interning/volunteering at a specific business. Students are selected through an application process. Transportation and related costs are the student/parent's responsibility.

### C511 Hershey PULSE Program

Description:

This is an after-school program taught at Penn State Milton S. Hershey Medical Center. PULSE aims to cultivate interest in medicine, biomedical science and healthcare systems science by introducing learners to medical students, biomedical researchers and practicing clinicians. Students attend lectures, review patient cases, and gain shadowing opportunities. Transportation and related costs of participation are the student/parent's responsibility.

#### C512 ACE Mentoring Program

Description:

This is an after-school program that gives students a hands-on introduction to careers in architecture, construction management, and engineering. Industry professionals meet with the students at the Cumberland-Perry Vo-Tech once a week from 5:00 p.m. until 6:30 p.m. from October through March. Transportation and a one-time fee of \$40 are the student/parent's responsibility.

#### C513 CPARC Social Services Exploration

Description:

This is a social services exploration program at CPARC Carlisle/Mechanicsburg. The mission of CPARC is to empower, inspire, and educate adults with intellectual disabilities. Students will spend one quarter of their senior year exploring several departments within the organization. Based on a final evaluation of the student's work ethic during the exploration, they may be offered an additional quarter of interning/volunteering in a specific area. These students will be selected through an application process. Transportation and related costs are the student/parent's responsibility.

#### C514 Penn State Holy Spirit Health Careers Internship

#### Description:

This program is available through a partnership with Penn State Holy Spirit. Students spend the first quarter of their senior year exploring the many career opportunities offered at a large healthcare facility. Students are selected through an application and interview process. Only two students from Big Spring are selected to attend. Transportation and related costs are the student/parent's responsibility.

#### C516 Emergency Medical Technician (EMT) Program

#### Description:

This course is offered through HACC during Semester II. Students will gain the knowledge and skills required to provide basic pre-hospital emergency care. The class is held at Cumberland Goodwill EMS Station in Carlisle. Tuition for the course is \$925 and the cost of the textbook is \$143. Transportation and related costs of participation are the student/parent's responsibility.

### C517 Passion through the Process Business Program

#### Description:

This is a ten-week program where seniors chosen from 10 mid-state school districts have the opportunity to spend 90 minutes each day exploring careers at the JDK Group in Camp Hill. During the first five weeks students will rotate through five departments. The departments included are Sales/Event Planning, Marketing, Warehouse Management, Operations, and Culinary. Participating students will then pick a specific department to concentrate on during the final five weeks. Transportation and related costs of participation are the student/parent's responsibility.

#### C518 Certified Nursing Assistant (CNA) Program

#### Description:

The nursing assistant program allows students the opportunity to become a certified nurse assistant (CNA). Classes are taught by HACC instructors at a long-term health care facility or at Carlisle High School. This course is offered during Quarter 1 and 3 only. Enrollment in this course requires a health exam, 2-step PPD, flu shot, as well as a criminal history check. Tuition for this course is \$1098. Transportation and related costs (scrubs, white shoes, watch) of participation are the student/parent's responsibility.

#### C519 Emerging Health Professions Internship

The Emerging Health Professionals Programs is a dual enrollment program that combines skills-based, interactive and university-level classroom learning with shadowing in a health care setting. The program is designed for high school seniors interested in the health care field and allows students the opportunity to explore careers in health care first-hand. In addition, the program is designed to prepare students for post-secondary education by offering college science courses through a regionally accredited University.

#### Description:

The Emerging Health Professionals Program is a half-day program that runs the duration of the school year in conjunction with required high school curriculum. Students spend two days a week taking college courses, two days a week in a health care setting and one day a week developing skills. Students in this program take anatomy and physiology for a total of eight college credits.

#### C520 UPMC Health Exploration

#### Description:

This program is available through a partnership with UPMC Carlisle. Students spend one quarter exploring the many career opportunities offered by the healthcare facility. Based on a final evaluation of the student's work ethic during the exploration, they may be offered an additional quarter interning/volunteering in a specific area. Students are selected through an application process. Transportation and related costs are the student/parent's responsibility.

#### C521 Volvo Exploration Program

#### Description:

This program is available through a partnership with Volvo in Shippensburg. Students spend one quarter exploring manufacturing, engineering, and business career opportunities that are offered by the facility. Based on a final evaluation of the student's work ethic during the exploration, they may be offered an additional quarter interning/volunteering in a specific area. Students are selected through an application process. Transportation and related costs are the student/parent's responsibility.

#### C522 Cumberland County Exploration Program

#### Description:

This program is exploration with Cumberland County Agencies. Students spend one quarter exploring various career opportunities that are offered by the agencies. Based on a final evaluation of the student's work ethic during the exploration, they may be offered an additional quarter interning/volunteering at a specific business. Students are selected through an application process. Transportation and related costs are the student/parent's responsibility.

#### C521 Warehousing/Logistics Exploration Program

#### Description:

This program is exploration with DHL in Newville. Students spend one quarter exploring various careers and business opportunities that are offered at the facility. Based on a final evaluation of the student's work ethic during the exploration, they may be offered an additional quarter interning/volunteering at a specific business. Students are selected through an application process. Transportation and related costs are the student/parent's responsibility.

## **COMPUTER SCIENCE**

Computer science courses are taught by teachers in our math and business departments.

3610 Computer Science Principles Grades: 9-12

Credits: 1.0 (Core Credit) Career Pathways: AC, BFIT, EIT, HS, SH

Prerequisites: None Competencies: Digital Literacy, Project-Based

How does technology impact and transform your world? This course introduces you to the foundational concepts of computer science and challenges you to explore areas such as webpage (create your own!), programming, and data privacy, encoding, encrypting and storage. In doing so, you will use technology to

Description: programming, and data privacy, encoding, encrypting and storage. In doing so, you will use technology to

address real-world problems and build relative solutions. No experience in web design or programming is

needed.

3620 Computer Science with Python Grades: 9-12

Credits: 1.0 (Core Credit) Career Pathways: AC, BFIT, EIT, HS, SH

Prerequisites: Algebra I Competencies: Digital Literacy, Project-Based

This course is designed to help students develop their skills in the planning, logical, and programming arenas.

Description:

The goal is for students to have a solid foundation in programming and some of the logic behind it. The

course begins with an introduction to computers and hardware. The subsequent units blend the

mathematics behind programming with application in Python programming language.

3630 Graphics with Python Grades: 9-12

Credits: 1.0 (Core Credit) Career Pathways: AC, BFIT, EIT, HS, SH

Prerequisites: None Competencies: Project-Based

Description: Students will learn to create graphics using the Python programming language. No experience with

programming is needed.

3600 JAVA Grades: 9-12

Credits: **0.5 (Core Credit)** Career Pathways: AC, BFIT, HS

Prerequisites: None Competencies: Numerical Analysis, Project-Based

Learn to program computers using the Java programming language! Java is an excellent language to start

Description: coding because many of its structures such as branching, looping and graphics transfer to other

programming languages. No experience with programming is needed to learn Java.

5000 Web Page Design Grades: 9-12

Credits: 0.5 Career Pathways: AC, BFIT, HS

Prerequisites: None Competencies: Digital Literacy, Project-Based

Always wanted to see what it would be like to make real authentic web pages for a living? Wanted a class that allows you the freedom to give back to teachers, clubs, organizations and maybe used in your current career path or in higher education? Then, Web Page Design is a class you must take. This Project-Based class

Description:

allows you to learn and explore how to create a fully functioning HTML Web Page from scratch; and to end

the experience, you will develop a fully functioning 4- page project for your club, teacher, and or

organization.

Special Note: This course will prepare students to take the W3Schools HTML Certification Exam.

| 5060           | Video Game Design I  |   | Grades: 9-12  |
|----------------|--|---|---|
| Credits:       | 0.5  | Career Pathways:  | AC, BFIT, HS  |
| Prerequisites: | None   | Competencies:   | Digital Literacy, Project-Based   |
| Description:   | Do you wonder how your favorite gam class and learn the complete process of processes of making games. This gives game build processes. The class does design. | of making video games. This clas<br>s you a strong basis into termino | s explores the theory and industry<br>ologies, game maker languages and |

| 5070           | Video Game Design II  |  | <b>Grades: 10-12</b>  |
|----------------|---|--|---|
| Credits:       | 0.5   | Career Pathways:   | AC, BFIT, HS  |
| Prerequisites: | Video Game Design I   | Competencies:  | Digital Literacy, Project-Based   |
| Description:   | With a strong basis of knowledge from level and this course is for you. This clanguages either in studio 2, Beta, Cordesign limits, making 2-player games thack for more, the sky is the limit. If yexperience can be invaluable. | lass is all about making games us<br>estruct 3 or mixing in other langu<br>hat excite any audience and one | ing the highest level of game maker ages this class pushes you to the e-player games that keep you coming |

# **ENGLISH**

| 0100           | English I  |   | Grades: 9   |
|----------------|--|---|---|
| Credits:       | 1.0  | Career Pathways:  | This course is required for   |
| Prerequisites: | None   | Competencies:   | graduation; all students must<br>successfully pass this course.               |
| Description:   | analyze major works of novels and plays all with | n preparing students to read and write on a<br>literature including short fiction, drama, and<br>hin thematic units. Students may also be giv<br>tructed Response writing format will be used<br>ill be included as well. | d poetry from the textbook and selected en the option to choose some of their |
| Special Note:  | English Land English II                          | are seguential.   |   |

English I and English II are sequential.

| 0100           | English I Honors   |                  | Grades: 9  |
|----------------|--|------------------|--|
| Credits:       | 1.0  | Career Pathways: | This course is required for  |
| Prerequisites: | Teacher Recommendation   | Competencies:    | graduation; all students must<br>successfully pass this course.                    |
| Description:   | This course will focus on preparing students to read and write on a rigorous level. Students will analyze major works of literature including short fiction, drama, and poetry from the textbook |                  | and poetry from the textbook and selected given the option to choose some of their |
| Special Note:  | English I and English II are seque   | ntial.           |  |

| 0200           | English II Academic   |                  | Grades: 10   |
|----------------|---|------------------|--|
| Credits:       | 1.0   | Career Pathways: | This course is required for                                  |
| Prerequisites: | English I   | Competencies:    | graduation; all students must successfully pass this course. |
| Description:   | Students will read and discuss works of fiction and nonfiction to develop and improve reading, comprehension, and critical thinking skills. Course work emphasizes literary elements, rhetorical devices, and text structures and provides students with an opportunity to improve their written expression skills in preparation for the state Keystone Exam. A research project to review basic components of research including finding, evaluating, and attributing information from a variety of sources will be required. |                  |  |
| Special Note:  | English I and English II are sequential. Students will take the Literature Keystone exam at the conclusion of this course.  |                  |  |

| 0200           | Honors English II   |                  | Grades: 10   |
|----------------|---|------------------|--|
| Credits:       | 1.0   | Career Pathways: | This course is required for                                  |
| Prerequisites: | English I   | Competencies:    | graduation; all students must successfully pass this course. |
| Description:   | Students will read and discuss works of fiction and nonfiction to develop and improve reading, comprehension, and critical thinking skills. Course work emphasizes literary elements, rhetorical devices, and text structures and provides students with an opportunity to improve their written expression skills in preparation for the state Keystone Exam. A research project to review basic components of research including finding, evaluating, and attributing information from a variety of sources will be required.   |                  |  |
| Special Note:  | The Honors English section is designed for students who have demonstrated superior communication skills. It is recommended that a student has a B average or above in prior academic English courses. The students will be expected to address reading, writing, and research assignments thoroughly and quickly. The course will be conceptoriented with an emphasis on creative and abstract thinking. Summer reading and other enrichment activities are part of this course. English I and English II are sequential. Students will take the Literature Keystone exam at the conclusion of this course. |                  |  |

0300 College Preparatory Literature Grades: 11-12

Credits: 1.0 (Core Credit) Career Pathways: AC, BFIT, EIT, HS, SH

Prerequisites: English II Competencies: Literature

This course is designed for students who are planning to attend a four-year college. Students will examine

major literary themes through reading novels, short stories, plays, poems, and nonfiction works that reflect a

variety of societies and cultures. Class discussions and compositions will encourage analytical and critical

thinking.

Description:

0400 College Preparatory Writing Grades: 11-12

Credits: 1.0 (Core Credit) Career Pathways: AC, BFIT, EIT, HS, SH Prerequisites: English II Competencies: Research Writing

This course is designed for students who are planning to attend a four-year college/university, and seeks to

Description: improve their writing and analytical skills through writing forms such as narrative, expository, and

argumentative. Although there will be reading involved, the goal is to introduce students to the conventions

of academic writing and critical thinking.

0310 Literature Grades: 11-12

Credits: 1.0 (Core Credit) Career Pathways: AC, BFIT, EIT, HS, SH

Prerequisites: English II Competencies: Literature

Students will explore universal themes and issues by reading both fiction and nonfiction texts. Students will

Description: read both whole-class texts and self-selected texts. Class discussions and assessments will center around

analysis of these texts and how they apply to our everyday lives.

0320 Research Writing Grades: 11-12

Credits: 1.0 (Core Credit) Career Pathways: AC, BFIT, EIT, HS, SH

Prerequisites: English II Competencies: Communications, Research Writing

This course is designed for students who are not planning to earn a four-year degree after high school. In this

Description: class, students will learn how to evaluate online resources, use civil discourse to discuss current topics, and

compose research-based writing. These reading and writing tasks will be shaped around real-life issues

relevant to students preparing to leave high school.

0505 AP English Literature and Composition Grades: 11-12

Credits: 1.0 (Core Credit) Career Pathways: AC, BFIT, EIT, HS, SH

Prerequisites: English II Competencies: Literature, Research Writing

Students will further enhance their skills of critical analysis in both literature and composition through a

Description: study, both wide and deep, of classic and modern fiction, poetry and drama. In content and structure, the

course will follow the AP Literature Course and Exam Description provided by the College Board.

It is recommended that students enrolled in AP courses take the AP Exam. AP English is weighted .5 for a

Special Note: cumulative GPA calculation. Also, students enrolled in AP Literature and Composition will have summer

reading and writing assignments to be completed prior to the start of the course.

| 0605           | AP English Language and Composition  |                  | <b>Grades: 11-12</b>             |
|----------------|--|------------------|----------------------------------|
| Credits:       | 1.0 (Core Credit)  | Career Pathways: | AC, BFIT, EIT, HS, SH            |
| Prerequisites: | English II   | Competencies:    | Communications, Research Writing |
| Description:   | This course serves to prepare students to take the AP Language and Composition exam, which aligns with introductory college-level rhetoric and writing. Students will develop evidence-based analytical argumentative essays through several stages or drafts, and students will evaluate, synthesize, and cite research to support their arguments. Throughout the course, students will develop a personal style by making appropriate grammatical choices. Additionally, students will read and analyze rhetorical elements and their effects in non-fiction texts from various disciplines and historical periods. |                  |                                  |
| Special Note:  | It is recommended that students enrolled in AP courses take the AP Exam. AP English is weighted .5 for a cumulative GPA calculation. Also, students enrolled in AP Language and Composition will have summer reading and writing assignments to be completed prior to the start of the course.   |                  |                                  |

| 0130           | Photo Journalism   |                                 | Grades: 9-12                             |
|----------------|--|---------------------------------|--|
| Credits:       | 1.0  | Career Pathways:                | AC, BFIT                                 |
| Prerequisites: | None   | Competencies:                   | Digital Literacy, Project-Based          |
| Description:   | Using design software, students will learn to plan and design a yearbook while adapting their writing skills to the style of journalism. Interest in writing, photography, interviewing, publishing, designing, and school activities are essential, as are a willingness to meet deadlines, attend school events, respond to constructive feedback, and work collaboratively with others. |                                 |  |
| Special Note:  | Enrollment in this course is open by the instructor/advisor.   | to all students in Grades 9-12, | but is limited to those who are approved |

| 0160           | World of Theatre               |   | Grades: 9-12   |
|----------------|--------------------------------|---|--|
| Credits:       | 0.5                            | Career Pathways:  | AC   |
| Prerequisites: | None                           | Competencies:   | Arts and Humanities  |
| Description:   | course, students will have the | opportunity to learn how productier, set design, costuming and make | s need to study all aspects of theater. In this ions evolve both on and off stage. Students eup, stage presence, memorization, writing |

| 0170           | Creative Writing |                                     | Grades: 9-12   |
|----------------|------------------|-------------------------------------|--|
| Credits:       | 0.5              | Career Pathways:                    | AC   |
| Prerequisites: | None             | Competencies:                       | Project-Based  |
| Description:   | •                | writing process, students will read | rill read published poetry, fiction, plays, d, revise and discuss their writing with t stories, drama, and narratives. |

| 0180           | Mass Media   |  | <b>Grades: 10-12</b>   |
|----------------|--|--|--|
| Credits:       | 1.0 (Core Credit)  | Career Pathways:   | AC   |
| Prerequisites: | None   | Competencies:  | Communications, Digital Literacy   |
| Description:   | For those interested in a hands-on and Students will learn to write in a journa order to produce articles for an online projects, written articles, interviews as www.bshspawpring.com where you can | listic as well as develop commu<br>newspaper and for a school brond<br>using broadcasting equipmer | nication and critical thinking skills in<br>padcast. Requirements include video<br>nt. Visit our online newspaper at |

| 0190           | Public Speaking   |  | Grades: 9-12   |
|----------------|---|--|--|
| Credits:       | 0.5 (Core Credit)   | Career Pathways:   | AC, BFIT, EIT, HS  |
| Prerequisites: | None  | Competencies:  | Communications   |
| Description:   | on speaking and listening etiquette. S informative, persuasive, and impromp | g in front of large and small grou<br>tudents will learn techniques for<br>otu. Additionally, students will le | ups. The course will also include a focus ray variety of speech types, including |

# **HEALTH AND PHYSICAL EDUCATION**

| 4100           | Teen Health and Physical Education   |   | Grades: 9-10   |  |
|----------------|--|---|--|--|
| Credits:       | 0.5  | Career Pathways:                                  | This course is required for                                  |  |
| Prerequisites: | None   | Competencies:                                     | graduation; all students must successfully pass this course. |  |
| Description:   | Students will gain an understanding of life skills and health and wellness components critical to their wellbeing and well-being of others. Health topics will include communication and collaboration strategies, mental health, stress-related topics, human sexuality and relationships, disease awareness, prevention and responding to emergencies. Students will also set and monitor health related and life enhancement goals. |   |  |  |
|                | This course is paired to components.   | with physical education and will contain both ph  | ysical activity and classroom                                |  |
| Special Note:  | This course is require   | ed for graduation: all students must successfully | nass this course   |  |

| Driver's Education/ Alcoh   | ol, Tobacco, Other Drugs, and Physical Education  | Grades: 9-10  |
|---|---|---|
| 0.5   | Career Pathways:  | This course is required for   |
| None  | Competencies:   | graduation; all students must successfully pass this course.  |
| Students will learn about obtaining a permit / license, rules of the NHS (National Highway System), defensive driving techniques / driver & passenger safety strategies, privileges and penalties, basic vehicle operation controls, instruments, gauges & warning lights, how to become a responsible driver in all conditions and how to prepare for emergency situations. Students will also learn about alcohol, tobacco and other drugs as a part of the health components of this course. |   |   |
| components.   |   | •   |
|   | None Students will learn about driving techniques / driving to prepare for emergen part of the health comp This course is paired with components. | None Competencies:  Students will learn about obtaining a permit / license, rules of the NHS driving techniques / driver & passenger safety strategies, privileges an controls, instruments, gauges & warning lights, how to become a resp to prepare for emergency situations. Students will also learn about alcopart of the health components of this course.  This course is paired with physical education and will contain both physical education. |

| 4200           | Healthy Relationships and Tean  | n Sports         |   | Grades:                       | 11-12 |
|----------------|---|------------------|---|-------------------------------|-------|
| Credits:       | 0.5   | Career Pathways: | HS, SH  |                               |       |
| Prerequisites: | None  | Competencies:    | Wellness  |                               |       |
| Description:   | This course focuses on what healthy and satisfying relationships look like. Emphasis v communication, decision making, refusal and conflict resolution skills. Other topics in development, anatomy, self-care, plus rights and responsibilities in dating situations. prevention of sexually transmitted infections (including AIDS) will also be addressed.  The Physical Education component will cover backyard games, net games, speed ball in the fitness center. |                  | Other topics inc<br>ting situations. I<br>be addressed. | clude growth<br>Birth control | and   |

| 4300           | Mental Health and   | Individual Lifetime Activities |          | <b>Grades:</b> | 11-12     |
|----------------|---|--------------------------------|----------|----------------|-----------|
| Credits:       | 0.5   | Career Pathways:               | HS, SH   |                |           |
| Prerequisites: | None  | Competencies:                  | Wellness |                |           |
| Description:   | Mental Health emphasizes the importance of strong mental/emotional health and demonstrates its interrelationship to all other health areas. Students are encouraged to self-evaluate and plan strategies fo personal mental health improvement. Personality, Maslow's Hierarchy of Motivation, and Mental Illness was also be researched and discussed.  This is paired with Physical Education activities that include Individual and Lifetime Activities. |                                |          |                | egies for |

| 4330           | Personal Fitness and  | d Nutrition   |   | Grades:   | 11-12     |
|----------------|---|---|---|---|-----------|
| Credits:       | 0.5   | Career Pathways:  | SH  |   |           |
| Prerequisites: | None  | Competencies:   | Wellness  |   |           |
| Description:   | adolescent health impro<br>relationship between pa<br>management, increase i<br>will be exposed to a vari | in daily moderate to vigorous physical activements. Throughout the course particular tricipation in a regular exercise and nutrit in strength and flexibility, disease preventiety of exercises and activities that provide ful throughout the aging process. | ar attention will be<br>tion program in reg<br>ion, and weight ma | given to the<br>gards to stress<br>inagement. The | e student |

| 4340           | Weight Training  |  |                  | <b>Grades:</b> | 9-12       |  |
|----------------|--|--|------------------|----------------|------------|--|
| Credits:       | 0.5  | Career Pathways:   | SH               |                | <u> </u>   |  |
| Prerequisites: | None   | Competencies:  | Wellness         |                |            |  |
|                | muscular strength, endurance, power  | inforces the proper guidelines, principles and techniques of weight lifting, and the development of scular strength, endurance, power and flexibility at a beginner, intermediate and advanced level. Toduces Olympic lifting techniques. Continues development of individual weight training programs and ranced evaluation techniques. |                  |                |            |  |
| Description:   | Classes will be conducted in a large group situation for lectures, warm up, cool down, and core training. Wit the guidance of the instructor, students will evaluate types of muscular strength and endurance training and implement a weight training and flexibility program for personal needs. Each student will progress at a rate commensurate with their abilities. Pre and post assessment will be conducted for flexibility, body composition, muscular strength, and muscular endurance. |  |                  |                | aining and |  |
| Special Note:  | This class may be taken as an elective PE/Health courses for students in 9 <sup>th</sup>   | _  | , but cannot rep | lace the two   | required   |  |

| 4410           | Lifeguard Training   |                  |          | Grades: | 11-12       |
|----------------|--|------------------|----------|---------|-------------|
| Credits:       | 0.5  | Career Pathways: | HS, SH   |         |             |
| Prerequisites: | None   | Competencies:    | Wellness |         |             |
| Description:   | This course will provide training for lifeguarding jobs. Upon successful completion of the course requirements, the American Red Cross will certify the student. This course may be used as an elective or as .5 health and physical education credit. |                  |          |         | ive or as a |
| Special Note:  | Students must be at least 15 years old to participate in the certification process.  Students must pay for the certification process and related material—approximate cost \$55.00.  |                  |          |         |             |

| 4420           | Elementary Water Safety  |   |  | <b>Grades:</b>  | 10-12  |
|----------------|--|---|--|---|--|
| Credits:       | 0.5  | Career Pathways:  | HS, SH   |   |  |
| Prerequisites: | Lifeguard Training   | Competencies:   | Wellness   |   |  |
| Description:   | This course is designed to allow reco<br>of observing and working in an aqua<br>elementary level students in small g<br>around aquatic environments. The I<br>place by observing elementary wate<br>the lifeguard with additional trainin<br>position of head lifeguard. This class<br>students in the swimming classes. | atic environment. The studen<br>groups. They will be educated<br>ifeguards will also be putting<br>er behavior and lifeguarding of<br>g in a controlled area before | its will spend time will in the basics of stro<br>their recently learned<br>during the elementar<br>the lifeguard is actua | orking in the p<br>ke mechanics<br>ed guarding sk<br>ry class. This w<br>ally placed in t | oool with<br>and safety<br>tills in<br>vill provide<br>the |

Special Note: Lifeguard certification is a prerequisite for this course.

| 4430           | <b>Babysitting and Aquatic Games</b>   |                                 | Grades: 9-12                            |  |
|----------------|--|---------------------------------|---|--|
| Credits:       | 0.5  | Career Pathways:                | HS, SH                                  |  |
| Prerequisites: | None   | Competencies:                   | Communications, Project-Based, Wellness |  |
| Description:   | The American Red Cross babysitting course in addition to aquatic games fulfills a health and physical education credit. This class will allow students to learn babysitting techniques, complete projects of planning activities, show responsibility, diaper changing, effective communication with children and leadership styles and discipline techniques while babysitting. Upon successful completion of the colon an 80% grade on the American Red Cross final students receive their American Red Cross First Aid a Certification.  The Physical Education portion will consist of reviewing the 5 components of fitness followed by |                                 |   |  |
|                | participating in water exercise and gar<br>muscular endurance, muscular strengt<br>benefits of regular physical fitness suc  | th and cardiovascular endurance | . Students will also understand the     |  |
| Special Note:  | This class may be taken as an elective PE/Health courses for students in 9th a   | <u> </u>                        | but cannot replace the two required     |  |
|                | American Red Cross Babysitting handbook. Students are able to view the babysitting material through an online babysitting handbook. Books are available for purchase at cost from the American Red Cross.  |                                 |   |  |

| 4500           | Leadership Development  |  |   | Grades:                                       | 11-12                                |
|----------------|---|--|---|---|--------------------------------------|
| Credits:       | 0.5   | Career Pathways:   | AC  |   |                                      |
| Prerequisites: | None  | Competencies:  | Project-Based   |   |                                      |
| Description:   | The curriculum will be task-driven, as short- and long-term projects. Studen their ability to work constructively in personal leadership traits by studying course will also include a community upon approval of the instructor. | nts will develop both written and<br>groups. Furthermore, students v<br>g texts and models of leadership | verbal communi<br>vill examine and of<br>from literature, b | cation skills<br>expand upor<br>ousiness, and | as well as<br>n their<br>I film. The |

## LANGUAGES FOR THE 21ST CENTURY

The Big Spring High School program of language studies adheres to the instructional standards of the American Council on the Teaching of Foreign Languages. Through our classroom program we offer a comprehensive, sequenced education in language study, centered on the development of target language skills in Listening Comprehension, Oral Communication Skills, Literacy and Composition. Our emphasis, at all levels of the program, is on the acquisition of fluency: the ability to understand and speak the language. Spanish and French are two of the three principal languages of the American continents, and are the heritage languages of millions of people all over the world.

Big Spring students who show a strong interest in language study have the opportunity to enroll in more than one language at a time, and to complete multiple levels of both French and Spanish.

Information regarding the opportunity to study languages not offered through our classroom program of instruction is available upon request. Online Language courses are an opportunity for students to explore with their counselor.

| 6100           | Spanish I: Introductory Level   |                                 | Grades: 9-12                     |  |  |
|----------------|---|---------------------------------|----------------------------------|--|--|
| Credits:       | 1.0   | Career Pathways:                | AC, BFIT, EIT, HS, SH            |  |  |
| Prerequisites: | See Special Note  | Competencies:                   | Communications                   |  |  |
| Description:   | Spanish I introduces the student to simple conversational skills and simple written sentence structures and individual lessons are centered on a set of themes and topics which are naturally interesting to you people: family/friends/school life/sports/shopping/music/and foods. Through the study of target language phonics, alongside the acquisition of the base vocabulary and verb structures, students begin to under speak, read, and write in the target language. |                                 |                                  |  |  |
|                | Culture: Spanish speaking regions of the world, famous people, cuisine, sports, and the importance of learning Spanish. Students demonstrate developing proficiencies through describing, role-playing, responding to questions about short reading selections, and participating in the creation/presentation of group skits and projects. Quizzes and tests are part of the classroom routine, along with composition work.   |                                 |                                  |  |  |
| Special Note:  | A grade of "C" or higher in the most r studies program.   | ecent English class is recommer | nded for entry into the language |  |  |

| 6200           | Spanish II: Novice Level  |                           | Grades: 9-12           |  |
|----------------|---|---------------------------|------------------------|--|
| Credits:       | 1.0   | Career Pathways:          | AC, BFIT, EIT, HS, SH  |  |
| Prerequisites: | Spanish I   | Competencies:             | Communications         |  |
| Description:   | Spanish II continues the development of a student's capabilities in the four principal skill sets: listening, speaking, reading, and writing. There is more emphasis in Level II on building the skills to form increasingly correct, complex sentence structure, and on adding the concepts of communication that describe events in the past and future verb tenses. Instruction is thematically based and centers on topics of travel, tourism, are history, school system comparisons, restaurant settings, regional customs and more food! |                           |                        |  |
|                | Culture: The geography and history<br>Art: Velásquez, Goya, Picasso, and I  |                           | ns.                    |  |
| Special Note:  | A grade of "C" or higher in Spanish   | I is recommended for adva | ncement to Spanish II. |  |

| 6300           | Spanish III: Intermediate Level   |                             | <b>Grades: 10-12</b>               |
|----------------|---|-----------------------------|------------------------------------|
| Credits:       | 1.0   | Career Pathways:            | AC, BFIT, EIT, HS, SH              |
| Prerequisites: | Spanish II  | Competencies:               | Communications, Global Studies     |
| Description:   | Level III is the gateway to language fluency. Students learn to speak, read, and write with increasing and confidence. Units of study continue to be thematically based and students are guided to draw or wealth of vocabulary and language structures they've accumulated since their introduction to the language. |                             | students are guided to draw on the |
| Special Note:  | A grade of "C" or higher in Spanish II  | is recommended for advancem | ent to Spanish III.                |

| 6400           | Honors Spanish IV  |                             | Grades: 10-12                                       |  |  |  |
|----------------|--|-----------------------------|---|--|--|--|
| Credits:       | 1.0 (Core Credit)  | Career Pathways:            | AC, BFIT, EIT, HS, SH                               |  |  |  |
| Prerequisites: | Spanish III  | Competencies:               | Arts and Humanities, Communications, Global Studies |  |  |  |
|                | The Honors Level language courses are designed to advance students more swiftly, and with greater challenge, toward language fluency in all skills areas. Level IV students are expected to willingly use the target language in the classroom, with classmates, as well as with their teacher.  |                             |   |  |  |  |
| Description:   | The thematic focus of Level IV promotes an almost exclusive use of the classroom language; with targe language to read, discuss, and write about the cultural history, physical geography, and daily lives of per who live in French and Spanish speaking regions of the world. The Level IV course comprises a comprehensive overview of grammar and a seminar style approach to reading material discussion. |                             |   |  |  |  |
|                | Culture: In-depth study of Spanish Art & Artists.  |                             |   |  |  |  |
| Special Note:  | A grade of "B" or higher in Spanish III  | is recommended for advancem | ent to Spanish IV.                                  |  |  |  |

| 6500           | Honors Spanish V  |                             | Grades: 11-12                                   |
|----------------|---|-----------------------------|---|
| Credits:       | 1.0 (Core Credit)   | Career Pathways:            | AC, BFIT, EIT, HS, SH                           |
| Prerequisites: | Spanish IV  | Competencies:               | Arts and Humanities, Communications, Literature |
| Description:   | Honors Spanish V is designed to increase proficiency in listening and understanding, speaking, reading, and writing. All vocabulary and grammar are acquired, reviewed, or mastered through the study of literature, history, and culture. Attention is given to developing conversational speaking and writing skills. |                             | nastered through the study of literature,       |
| Special Note:  | A grade of "C" or higher in Spanish   | IV is recommended for advan | ncement to Spanish V.                           |

| 6150           | Hispanic Pop Culture  |                  | Grades: 9-12          |
|----------------|---|------------------|-----------------------|
| Credits:       | 0.5   | Career Pathways: | AC, BFIT, EIT, HS, SH |
| Prerequisites: | Spanish I   | Competencies:    | Global Studies        |
| Description:   | Students will expand their understanding of other cultures by exploring Latin American and Spanish pop culture topics including television, movies, music, and sports and leisure through authentic materials and resources. For this course, students must have completed Spanish I. |                  |                       |

| 6600           | French I: Introductory Level  |  | Grades: 9-12   |
|----------------|---|--|--|
| Credits:       | 1.0   | Career Pathways:   | AC, BFIT, EIT, HS, SH  |
| Prerequisites: | See Special Note  | Competencies:  | Communications, Digital Literacy   |
| Description:   | French I introduces the student to simple conversational skills and simple written sentence structures. Un and individual lessons are centered on a set of themes and topics which are naturally interesting to young people: family/friends/school life/sports/shopping/music/and foods. Through the study of target language phonics, alongside the acquisition of the base vocabulary and verb structures, students begin to understain speak, read, and write in the target language. |  |  |
|                | _   | e developing proficiencies throu<br>tions, and participating in the cr | gh describing, role-playing, responding eation/presentation of group skits and |
| Special Note:  | A grade of "C" or higher in the most r studies program.   | ecent English class is recommen  | ded for entry into the language  |

| 6700                         | French II: Novice Level   |  | Grades: 9-12   |
|------------------------------|---|--|--|
| Credits:                     | 1.0   | Career Pathways:                                   | AC, BFIT, EIT, HS, SH  |
| Prerequisites:  Description: | tes: French I Competencies: Communication French II continues the development of a student's capabilities in the four principal speaking, reading, and writing. There is more emphasis in Level II on building the ski correct, complex sentence structure, and on adding the concepts of communication the past and future verb tenses. Instruction is thematically based and centers on top |  | building the skills to form increasingly communication that describe events in d centers on topics of travel, tourism, art |
| Special Note:                | history, school system comparisons,  Culture: The geography and history  Art: Famous monuments throughout  A grade of "C" or higher in French I   | of various travel destinations.<br>ut the country. |  |

| 6800           | French III: Intermediate Level  |                              | Grades: 10-12                                       |
|----------------|---|------------------------------|---|
| Credits:       | 1.0   | Career Pathways:             | AC, BFIT, EIT, HS, SH                               |
| Prerequisites: | French II   | Competencies:                | Communications, Digital Literacy,<br>Global Studies |
| Description:   | Level III is the gateway to language fluency. Students learn to speak, read, and write with increasing accurace and confidence. Units of study continue to be thematically based and students are guided to draw on the wealth of vocabulary and language structures they've accumulated since their introduction to the language in Level I. |                              |   |
|                | Culture: Students will explore differe  | nt types of literature.      |   |
| Special Note:  | A grade of "C" or higher in French II   | is recommended for advanceme | ent to French III.                                  |

| 6900           | Honors French IV  |  | <b>Grades: 10-12</b>  |
|----------------|---|--|---|
| Credits:       | 1.0 (Core Credit)   | Career Pathways:   | AC, BFIT, EIT, HS, SH   |
|                |   |  | Arts and Humanities,  |
| Prerequisites: | French III  | Competencies:  | Communications, Digital Literacy,                                   |
|                |   |  | Literature  |
|                | The Honors Level language courses are   | _  | ••  |
|                | challenge, toward language fluency in   | all skills areas. Level IV students                                | are expected to willingly use the                                   |
|                | target language in the classroom, with  | classmates, as well as with thei                                   | r teacher.  |
| Description:   | The thematic focus of Level IV promot language to read, discuss, and write al who live in French and Spanish speaki comprehensive overview of grammar | oout the cultural history, physicang regions of the world. The Lev | al geography, and daily lives of people<br>el IV course comprises a |
| Special Note:  | A grade of "B" or higher in French III  | s recommended for advanceme  | ent to French IV.   |

| 6950           | Honors French V   |                                  | Grades: 11-12  |
|----------------|---|----------------------------------|--|
| Credits:       | 1.0 (Core Credit)   | Career Pathways:                 | AC, BFIT, EIT, HS, SH                                    |
| Prerequisites: | French IV   | Competencies:                    | Arts and Humanities,<br>Communications, Digital Literacy |
| Description:   | Honors Spanish V is designed to increase proficiency in listening and understanding, speaking, reading, and writing. All vocabulary and grammar are acquired, reviewed, or mastered through the study of literature, history, and culture. Attention is given to developing conversational speaking and writing skills. |                                  |  |
| Special Note:  | A grade of "B" or higher in Fre   | ench IV is recommended for advar | ncement to French V.                                     |

| 6650           | Exploring World Tourism   |                  | Grades: 9-12          |
|----------------|---|------------------|-----------------------|
| Credits:       | 0.5   | Career Pathways: | AC, BFIT, EIT, HS, SH |
| Prerequisites: | None  | Competencies:    | Project-Based         |
| Description:   | Students will explore pre-travel and cultural and societal topics in order to gain a better respect and understanding for culture as well as how to effectively travel to the countries investigated throughout the course. |                  | · ·                   |

## **MATHEMATICS**

3000 Algebra I Grades: 9-12 1.0 This course is required for Credits: Career Pathways: graduation; all students must Prerequisites: None Competencies: successfully pass this course. Algebra I serves as the foundation for all higher level mathematics courses. Students will develop a fundamental understanding of equations, inequalities, linear functions, and polynomials. Emphasis is placed Description: on the thinking process, organizational skills, and the understanding of concepts through problem solving. Students will take the Keystone Algebra I exam at the conclusion of this course.

3100 Geometry **Grades:** 9-12 Credits: 1.0 (Core Credit) AC, BFIT, EIT, HS, SH Career Pathways: **Numerical Analysis** Prerequisites: Algebra I Competencies: Plane Geometry investigates lines, angles, triangles, quadrilaterals, polygons, and circles. Algebra and Description: geometry are integrated to examine concepts of measurement, congruence, similarity, and logical reasoning. It is recommended that students have their own scientific calculator. Special Note:

3150 **Honors Geometry Grades:** 9-12 Credits: 1.0 (Core Credit) AC, BFIT, EIT, HS, SH Career Pathways: Prerequisites: Algebra I Competencies: **Numerical Analysis** Honors Plane Geometry investigates angles, triangles, quadrilaterals, polygons, circles and basic trigonometry at a more rigorous pace than Geometry. Algebra and geometry are integrated to examine concepts of measurement, congruence, similarity, and logical reasoning. Students will be expected to Description: complete proofs with proper mathematical notation throughout the course. The primary objective of this course is to teach students how to reason mathematically through visualization, analysis and deductive reasoning. Review work is required prior to the course. "B" average or higher in Algebra I is recommended. It is also recommended that students have their own **Special Note:** scientific calculator.

9-12 3200 Algebra II **Grades:** Credits: 1.0 (Core Credit) Career Pathways: AC, BFIT, EIT, HS, SH Prerequisites: Competencies: **Numerical Analysis** Geometry This course extends the topics seen in Algebra I and Geometry. A review of linear algebra will be followed by an introduction to the complex number system, radicals, multivariable systems, and solving/graphing Description: nonlinear functions. Throughout this course, students will develop critical thinking skills, and problemsolving techniques to prepare for future math courses and college entrance exams.

3250 Honors Algebra II **Grades:** 9-12 Credits: 1.0 (Core Credit) AC, BFIT, EIT, HS, SH Career Pathways: Prerequisites: Competencies: **Numerical Analysis** None Algebra I serves as the foundation for all higher level mathematics courses. Students will develop a Description: fundamental understanding of equations, inequalities, linear functions, and polynomials. Emphasis is placed on the thinking process, organizational skills, and the understanding of concepts through problem solving.

| 3300           | Pre-Calculus                   |                  | Grades: 9-12   |
|----------------|--------------------------------|------------------|--|
| Credits:       | 1.0 (Core Credit)              | Career Pathways: | AC, BFIT, EIT, HS, SH  |
| Prerequisites: | Algebra II                     | Competencies:    | Numerical Analysis   |
| Description:   | procedural mastery to investig | _                | udents will use critical thinking, analysis, and al functions, exponential and logarithmic |

| 3350           | Honors Pre-Calculus   |                  | Grades: 9-12                    |
|----------------|---|------------------|---------------------------------|
| Credits:       | 1.0 (Core Credit)   | Career Pathways: | AC, BFIT, EIT, HS, SH           |
| Prerequisites: | "B" or higher in Honors Algebra II is recommended   | Competencies:    | Numerical Analysis              |
| Description:   | This course seeks to prepare students for success in high-level math courses through the extended use of critical thinking, analysis, and procedural mastery. Concepts covered will include a survey of common functions and their graphs, limits of functions, and an introduction to conic sections. Review work is requir prior to the course. |                  | vill include a survey of common |

| 3360           | Honors Trigonometry   |   | Grades: 9-12   |
|----------------|---|---|--|
| Credits:       | 1.0 (Core Credit)   | Career Pathways:  | AC, BFIT, EIT, HS, SH  |
| Prerequisites: | None  | Competencies:   | Numerical Analysis   |
| Description:   | use of critical thinking, analysis, a<br>relationships, the use of trigonor<br>trigonometric identities, and solv | and procedural mastery. Concernetry in modeling periodic behaving trigonometric equations. If | ner-level math courses through the extended pts covered will include right triangle avior, graphing trigonometric functions, time permits, further extension and polar coordinates, and parametric equations |
| Special Note:  | As this is a numerically intensive graphical solutions, the purchas   | •   | tions sought between numerical and ly recommended.   |

| 3305           | AP Calculus AB                        |   | Grades: 9-12   |
|----------------|---------------------------------------|---|--|
| Credits:       | 1.0 (Core Credit)                     | Career Pathways:  | AC, BFIT, EIT, HS, SH  |
| Prerequisites: | Precalculus + Honors Trigonometry     | Competencies:   | Numerical Analysis   |
| Description:   | = -                                   | ursuing a college degree in a ma<br>Calculus is the study of how fund<br>learned in Precalculus and Trigo<br>ss in Calculus. The AP Calculus A<br>ulator-restricted problems. As su | th-heavy field such as physics,<br>tions change and accumulate. Calculus<br>pnometry. Strong algebra skills provide<br>B exam is composed of both<br>uch, all students taking AP Calculus AB |
| Special Note:  | the TI-84. It is recommended that stu | of a function. Students with oth<br>now their particular graphing ca<br>dents enrolled in AP courses tak<br>may receive college credit for C  | er graphing calculators may need to<br>lculator does whatever was shown on<br>se the AP Exam. Students who score a<br>alculus I by their respective college or                               |

| 3355           | AP Calculus BC   |                  | Grades: 9-12          |
|----------------|--|------------------|-----------------------|
| Credits:       | 1.0 (Core Credit)  | Career Pathways: | AC, BFIT, EIT, HS, SH |
| Prerequisites: | AP Calculus AB   | Competencies:    | Numerical Analysis    |
| Description:   | AP Calculus BC is a continuation of AP Calculus AB. Throughout the BC course, a thorough review of AB topics will lead to the fourth 'Big Idea' of AP Calculus - Sequence and Series. An in-depth study of various types of series along with methods for determining convergence and divergence will lead to an examination of approximating known functions using Maclaurin and Taylor series. The concept of approximation is a common theme throughout AP Calculus, and the power series provides a unifying, comprehensive conclusion to AP Calculus. The AP Calculus BC exam is composed of both calculator-required problems and calculator-restricted problems. As such, all students taking AP Calculus BC are required to have access to a graphing calculator. The course will be taught using a TI-84 graphing calculator. |                  |                       |
| Special Note:  | It is recommended that students enrolled in AP courses take the AP Exam. Students who score a 3, 4, or 5 on the AP Calculus BC Exam may receive college credit for Calculus I and Calculus II or be placed directly into Calculus III by their respective college or university. Students should check with their prospective  |                  |                       |

3400 **Mathematical Modeling Cogito Grades: 11-12** Credits: 1.0 (Core Credit) AC, BFIT, EIT, HS, SH Career Pathways: Geometry Prerequisites: Competencies: Numerical Analysis, Project-Based Mathematical Modeling is the process of understanding real-life phenomenon by determining the mathematics that underlies the data. Beginning with whole class investigations into applications from studies such as biology, chemistry, and physics, students will be taught the use of the Vernier Logger-Pro data Description: collection interface. Students will continue to build on these skills with labs appropriate to their mathematics background before designing and implementing a final Mathematical Modeling project of their choosing. The final project will include a presentation before an authentic audience.

college for placement policy.

| 3500           | Statistics   |  | <b>Grades: 11-12</b>   |
|----------------|--|--|--|
| Credits:       | 1.0 (Core Credit)  | Career Pathways:   | AC, BFIT, EIT, HS, SH  |
| Prerequisites: | Geometry   | Competencies:  | Numerical Analysis, Project-Based  |
| Description:   | students' own interest. Students drive the things that they enjoy been explored in the past includ games), clothing, nature, food, a | s will get an introduction to statis<br>through individual topic informa<br>le: sports, the medical field, ente<br>areas of employment and others. | explore the data and statistics behind each stics and then further discover how numbers tion gathering and projects. Topics that have extainment (TV, movies, music, and video . Students will design and implement a final a presentation before an authentic |

| 3505           | AP Statistics  |                  | Grades: 11-12         |
|----------------|--|------------------|-----------------------|
| Credits:       | 1.0 (Core Credit)  | Career Pathways: | AC, BFIT, EIT, HS, SH |
| Prerequisites: | Algebra II   | Competencies:    | Numerical Analysis    |
| Description:   | Exploring data, planning a statistical study, probability, and inferential reasoning are the four main components of this course. It is designed to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students taking this course will take the AP Statistics exam and possibly receive college credit for an introductory non-calculus-based statistics course |                  |                       |
| Special Note:  | Recommended "B" average or higher in prerequisite course(s). It is recommended that students enrolled in AP courses take the AP Exam. It is strongly recommended that students provide their own TI -84 CE graphing calculator, or equivalent, for AP Statistics. It will be used extensively throughout the course and is required for the AP Statistics exam.  |                  |                       |

# **MUSIC**

| 8000           | Concert Choir   |                  | Grades: 9-12        |
|----------------|---|------------------|---------------------|
| Credits:       | 1.0   | Career Pathways: | AC                  |
| Prerequisites: | Recommendation of MS/HS Choir Director  | Competencies:    | Arts and Humanities |
| Description:   | Concert Choir is a full-year, performance-based course. Audition is required to place members in the corre vocal section. A wide variety of songs and styles are covered including a cappella pieces. Sight-reading is emphasized. Choral techniques including tonal quality, diction, phrasing, rhythm, and musicality are stressed. |                  |                     |
|                | The choir performs in 3-5 concerts each have the opportunity to participate in  |                  |                     |

| 8100           | Concert Band  |   | Grades: 9-12  |
|----------------|---|---|---|
| Credits:       | 1.0   | Career Pathways:  | AC  |
| Prerequisites: | Recommendation of MS/HS Band Director   | Competencies:   | Arts and Humanities   |
| Description:   | program, grades 9 through 12. The end wind and percussion playing. Ensemble including, but not limited to: tone programalyzing music, and studying historical | nsemble is designed to tead<br>ole and solo activities are do<br>oduction, technical skills, in<br>cally significant styles of lite<br>3-5 concerts per year, in ac | udes all members of the instrumental ch the basic and advanced fundamentals of esigned to develop elements of musicianship atonation, music reading skills, listening skills, erature.  ddition to festivals and workshops held |

| 8200           | Introduction to Music Theory   |                            | Grades: 9-12   |
|----------------|--|----------------------------|--|
| Credits:       | 1.0  | Career Pathways:           | AC   |
| Prerequisites: | Recommendation of MS/HS Music Teacher  | Competencies:              | Arts and Humanities  |
| Description:   | Intro to Music Theory is designed for students interested in learning about the fundamental elements of music. This course will cover the properties of music, rules of music notation, rhythm and meter, note identification, clefs, scales, modes, key signatures, triads, and seventh chords. Aural skills will be developed and introduced through singing, dictation, improvisation, and interval/chord identification. |                            | usic notation, rhythm and meter, note venth chords. Aural skills will be developed |
| Special Note:  | Students should be fluent in at least  | one clef (treble or bass). |  |

| 8205           | AP Music Theory   |                  | Grades: 9-12   |
|----------------|---|------------------|--|
| Credits:       | 1.0 (Core Credit)   | Career Pathways: | AC   |
| Prerequisites: | Recommendation of MS/HS Music Teacher   | Competencies:    | Arts and Humanities  |
| Description:   | The AP Music Theory course enables highly motivated students to engage in college level work in the areas of reading and analyzing notated music and aural training. The ultimate goal of the AP Music Theory course is to develop a student's ability to recognize, understand, and describe the basic materials and processes of music that are heard or presented in a score. The achievement of this goal may be best promoted by integrated approaches to the student's development of aural, sight-singing, written, compositional, and analytical skills. The work of the course will emphasize preparation for the advanced placement music theorems. |                  | te goal of the AP Music Theory course e the basic materials and processes of goal may be best promoted by nging, written, compositional, and |
| Special Note:  | Completion of Intro to Music Theory with approval from Music Theory instructor. It is recommended tha students enrolled in AP courses take the AP Exam. AP Music Theory is weighted .5 for cumulative GPA calculation.  |                  |  |

| 8300           | Jazz Studies   |  | Grades: 9-12   |
|----------------|--|--|--|
| Credits:       | 0.5  | Career Pathways:   | AC   |
| Prerequisites: | None   | Competencies:  | Arts and Humanities  |
| Description:   | This course will trace the developmen different eras, styles, artists, literature audio and video recordings to illustrat spend extensive amounts of time on s studies concepts involving the various Studies departments. | e and social issues associated wit<br>te the stylistic differences and de<br>elf-directed research projects th | evelopment of each era. Students will nat will combine both music and social |

| 8310           | Guitar Lab |   | Grades: 9-12        |
|----------------|------------|---|---------------------|
| Credits:       | 0.5        | Career Pathways:  | AC                  |
| Prerequisites: | None       | Competencies:   | Arts and Humanities |
| Description:   |            | bility. Concepts covered will incl<br>chord reading. Students will have | •                   |

Special Note: A course fee of \$20.00 will be charged for student method books and guitar maintenance.

| 8320           | Music in Film   |   | Grades: 9-12  |
|----------------|---|---|---|
| Credits:       | 0.5   | Career Pathways:  | AC  |
| Prerequisites: | None  | Competencies:   | Arts and Humanities   |
| Description:   | material will include early Black & original scores and classical maste | k White "silent" films through fil<br>erpieces to evoke emotion. Stuc<br>use of music in character identi | lation with the motion picture industry. The lms presented in theatres today that use dents will score and produce music for a film fication, synchronizing techniques, and the |

| 8340           | Lighting and Sound Design   |   | Grades: 9-12  |
|----------------|---|---|---|
| Credits:       | 0.5   | Career Pathways:  | AC  |
| Prerequisites: | None  | Competencies:   | Arts and Humanities, Digital Literacy   |
| Description:   | Lighting and Sound Design is a course<br>Students will learn about modern ligh<br>dimmer racks, lighting fixtures, color t<br>students will learn basic stage direction<br>develop a final product of designing the | ting and sound equipment, inclu<br>heory, sound boards, wiring, and<br>on techniques and terminology. | ding but not limited to light consoles,<br>d microphone selection. In addition<br>Students will use learned skills to |

| 8350           | Voice Lab   |  | Grades: 9-12  |
|----------------|---|--|---|
| Credits:       | 0.5   | Career Pathways:   | AC  |
| Prerequisites: | None  | Competencies:  | Arts and Humanities   |
| Description:   | Voice Lab is designed for students who choose repertoire, with instructor recommendation will cover vocal ranges, diction, voice of music theory principles such as note a this course. | ommendation, to develop their quality, and will use varying repo | individual singing ability. The course ertoire throughout, as well as basic |

| 8360           | Piano Lab                             |  | Grades: 9-12   |
|----------------|---------------------------------------|--|--|
| Credits:       | 0.5                                   | Career Pathways:   | AC   |
| Prerequisites: | None                                  | Competencies:  | Arts and Humanities  |
| Description:   | crash course in fundamentals and the  | hen receive individualized les<br>nic reading, elements of pianc | From the novice on up. Students will receive a ssons based on ability. Concepts include note o technique, scales, arpeggios, block chords, |
| Special Note:  | A course fee of \$20.00 will be charg | ged for student method bool                                      | ks and keyboard maintenance.   |

| 8370           | Music Technology Lab I   |   | Grades: 9-12   |
|----------------|--|---|--|
| Credits:       | 0.5  | Career Pathways:  | AC   |
| Prerequisites: | None   | Competencies:   | Arts and Humanities, Project-Based                                       |
| Description:   | editing, and performing music. Partici troubleshoot basic audio equipment, | pants will learn fundamental pro<br>how to compose music with loo<br>he effect of a room's acoustics, a | ps, how to write music in digital and how to edit and adjust live sound. |

| 8371           | Music Technology Lab II   |   | Grades: 9-12                            |
|----------------|---|---|---|
| Credits:       | 0.5   | Career Pathways:  | AC                                      |
| Prerequisites: | None  | Competencies:   | Arts and Humanities, Project-Based      |
| Description:   | Music Technology Lab 2 builds on kno<br>sound and editing with Audacity Sour<br>creating voice overs, foley art, podca<br>performances throughout the high so | ndnation, and other tools readily sting, and the mastering of recor | available to students. Projects include |

| 8390           | Music History                   |  | Grades: 9-12   |
|----------------|---------------------------------|--|--|
| Credits:       | 0.5                             | Career Pathways:   | AC   |
| Prerequisites: | None                            | Competencies:  | Arts and Humanities, Global Studies  |
| Description:   | Baroque, Classical, Romantic, a | nd Modern eras. A study of the m music will be the focus of this class | ajor periods, including the Renaissance, ajor composers and the major works within ss. Students will develop formal research |

## **EXTRACURRICULAR MUSIC PROGRAMS AND ACTIVITIES**

These opportunities are coordinated by the Music Department. Speak with Mr. Noble or Mr. Wilson for more information.

#### A Cappella Ensemble

Description:

Vocal Ensemble that is open to interested students involved in curricular Concert Choir. Membership is limited by audition.

#### Cantabile

Description:

Vocal ensemble that is open to interested students involved in curricular Concert Choir. Membership is limited by audition.

#### **Chamber Ensembles**

Description:

Open to members of the Concert Band and/or Marching Band. Students not enrolled in these ensembles will be considered on a case-by-case basis and must get permission from the band director. These are primarily student-led ensembles with instructor supervision.

#### **Color Guard**

Description:

Color guard members are expected to perform in both marching band and indoor. Students who only wish to participate in one season per year will be considered on a case by case basis.

#### Gold, Silk, and Satin Lab Band

Description:

Open to members in Concert Band and/or Marching Band and is dependent on required instrumentation of the ensembles. This ensemble only runs when there are enough students to support two jazz bands.

#### **Marching Band**

Description:

Participation is open to all band members. Interested students not in the band are considered on a case-by-case basis and must get permission from the band director.

#### Big Spring Musical Production(s)

Description:

Participation is open to all students. Auditions are required due to casting requirements.

#### **Percussion Ensemble**

Description:

Open to members of the Concert Band and/or Marching Band. Students not enrolled in these ensembles will be considered on a case-by-case basis and must get permission from the band director.

#### **Pit Band**

Description:

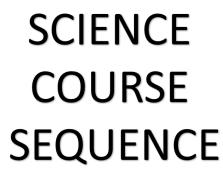
Open to members of the Concert Band and/or Marching Band. Students not enrolled in these ensembles will be considered on a case-by-case basis and must get permission from the band director.

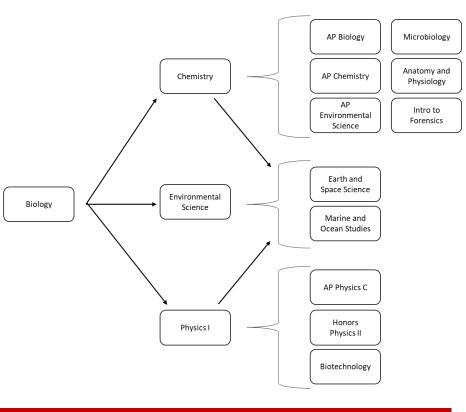
#### **Twilight Jazz Ensemble**

Description:

Open to members in Concert Band and/or Marching Band and is dependent on required instrumentation of the ensembles.

## **SCIENCE**





| 2000           | Biology   |  | Grades: 9  |
|----------------|---|--|--|
| Credits:       | 1.0   | Career Pathways:   | This course is required for  |
| Prerequisites: | None  | Competencies:  | graduation; all students must<br>successfully pass this course.                  |
| Description:   | well as their environment characteristics of living t | ology course is the study of living things and the course will be covering the biology things, biochemistry, cell transport, bioenesics and evolution. Students will attempt to e. | Keystone state standards. Units include: ergetics, cell cycle, DNA technologies, |

| 2005           | AP Biology   |  |   | <b>Grades:</b>               | 11-12           |
|----------------|--|--|---|------------------------------|-----------------|
| Credits:       | 1.0 (Core Credit)  | Career Pathways:   | SH  |                              |                 |
| Prerequisites: | Biology + Chemistry  | Competencies:  | Lab Science                                     |                              |                 |
| Description:   | structuring the course around<br>develop an appreciation for th<br>within a diversified biological v | r students a solid foundation in int<br>the four big ideas, enduring under<br>e study of life and help them ident<br>world. Topics to be covered include<br>nd biological system interactions. | standings, and science tify and understand unit | practices, s<br>fying princi | tudents<br>ples |
| Special Note:  |  | d Chemistry final averages be 85 pourses take the AP Exam. AP Biolog   |   |                              |                 |

2100 **Grades:** 10-12 Chemistry

1.0 (Core Credit) Credits: Career Pathways: SH

Prerequisites: Algebra I + Biology Competencies: Lab Science

> This course focuses on the study of matter; its composition, properties, and structures; and the changes that matter undergoes. Specific topics also include chemical names and formulas, chemical equations, phases of

matter, bonding, types of chemical reactions, solutions, and acid/base chemistry. Considerable lab work is

required in this course.

Description:

Description:

2105 **AP Chemistry Grades: 11-12** 

Credits: 1.0 (Core Credit) Career Pathways: SH

Prerequisites: Algebra II + Chemistry Competencies: Lab Science

> This course is taught from a college textbook and includes topics found in a first-year college chemistry course. It is assumed that students have basic chemistry knowledge. Topics from Chemistry I will be

Description: discussed in detail and additional topics such as nuclear and organic chemistry, kinetics, equilibrium, and

thermodynamics will be introduced. Emphasis is placed on solving a variety of math problems relating to

chemistry. Considerable lab work is required.

This course is offered once a year. It is suggested that students enrolled in AP courses take the AP Exam. **Special Note:** 

AP Chemistry is weighted .5 for cumulative GPA calculation.

2200 **Physics I Grades:** 10-12

Credits: 1.0 (Core Credit) Career Pathways: EIT, SH

Prerequisites: Algebra I (Chemistry recommended) Competencies: Lab Science, Numerical Analysis

> This science deals with the interaction between matter and energy. It will include a study of motion and forces, energy, wave motion, and electric fields. Various laboratory exercises will be included to develop an

appreciation of how the scientist works, as well as what scientists have discovered. Problem solving is

emphasized.

2250 **Honors Physics II Grades:** 11-12

Credits: 1.0 (Core Credit) Career Pathways: EIT, SH

Prerequisites: Physics I + Chemistry Competencies: Lab Science, Numerical Analysis

> This course will serve as an introduction to nuclear physics, optics, and sound. Problem solving and nuclear theory will be stressed as well as the impact of nuclear science on society. Discussion of waves and wave

Description: phenomena, and application of these theories will be stressed. Topics discussed will include: relativity,

spectra analysis, atomic and nuclear models, fission, fusion, radioactivity, optics, sound wave motion, and

energy transfer.

2205 **AP Physics C: Mechanics Grades:** 11-12

Credits: 1.0 (Core Credit) Career Pathways: EIT, SH

Prerequisites: Physics I (Calculus AB recommended) Competencies: Lab Science, Numerical Analysis

The course is designed to be similar to a calculus-based physics class taught at the college level. Students

majoring in the sciences, mathematics, and engineering usually take this course. The course is more Description:

intensive and analytical than the regular physics course. Emphasis is placed on solving a variety of

challenging problems, some requiring calculus. The subject matter of the course is a rigorous treatment of kinematics, dynamics, and other topics in mechanics.

It is suggested that students enrolled in AP courses take the AP Exam. AP Physics C- Mechanics is weighted **Special Note:** 

.5 for cumulative GPA calculation.

| 2206           | Biotechnology   |   |  | Grades:   | 10-12                            |
|----------------|---|---|--|---|----------------------------------|
| Credits:       | 1.0 (Core Credit)   | Career Pathways:  | EIT, SH  |   |                                  |
| Prerequisites: | Physics I (Calculus AB recommended)   | Competencies:   | Lab Science  |   |                                  |
| Description:   | This course provides an introduction to<br>and agricultural disciplines. Topics cove<br>biotechnology, biotechnology in anima<br>course emphasizes basic understanding<br>of consumer products and employmen<br>of science and includes an introduction | ered include drug deve<br>I breeding and horticu<br>g of the techniques use<br>t available. This course | lopment, medical treatmenture, and ethical issues in ed in all areas of biotechnoes is well suited to students | nts, enviror<br>biotechnolo<br>logy, and th<br>interested i | nmental<br>ogy. This<br>ne range |
| Special Note:  | Beginning in the 2022-2023 school year<br>number (2022, 2024, 2026, etc.)   | ar, this course will only   | be offered during years t  | hat end wit   | th an even                       |

| 2300           | Environmental Science   |   |  | <b>Grades:</b>   | 10-12   |
|----------------|---|---|--|--|---|
| Credits:       | 1.0 (Core Credit)   | Career Pathways:  | SH   |  |   |
| Prerequisites: | Biology   | Competencies:   | Lab Science  |  |   |
| Description:   | This course examines the interactions between ecological processes and pat designed to give students an introduct apply to natural ecosystems and the h biogeochemical cycles, the hydrologic predation, parasitism, and mutualism; Laboratory/field sessions emphasize e | terns of distribution and abundatory understanding of how ecolouman interface with those syste cycle, and the carbon cycle; tropopulation dynamics, agriculture | ince of organism<br>ogical systems ar<br>ims. It will includ<br>ohic levels in eco<br>re, forestry and | ns. This cours<br>nd ecological<br>de topics such<br>osystems; con | e is<br>principles<br>n as global<br>mpetition, |

| 2305           | AP Environmental Science  |  |  | Grades:   | 10-12                 |
|----------------|---|--|--|---|-----------------------|
| Credits:       | 1.0 (Core Credit)   | Career Pathways:   | SH   |   |                       |
| Prerequisites: | Biology + Chemistry   | Competencies:  | Lab Science  |   |                       |
| Description:   | AP Environmental Science is an application of the scientific principles, concepts, and noticiplines. This course includes metincluding mathematical calculations populations, earth systems and rescations atmospheric pollution, aquatic and science of the systems. | nethodologies of the natural<br>thods for analyzing and inter<br>. This course will include the<br>ources, land and water use, e | I world and draws from<br>rpreting information a<br>e following topics: ecosenergy resource and co | n various scie<br>nd experimer<br>systems, biod | entific<br>ntal data, |
| Special Note:  | It is recommended that students en weighted .5 for cumulative GPA cal   |  | ne AP Exam. AP Enviro  | onmental Scie                                   | ence is               |

| 2400           | Anatomy and Physiology  |                                | <b>Grades: 11-12</b> |
|----------------|---|--------------------------------|----------------------|
| Credits:       | 1.0 (Core Credit)   | Career Pathways:               | SH                   |
| Prerequisites: | Biology + Chemistry   | Competencies:                  | Lab Science          |
| Description:   | The anatomy and physiology course is which lead to an understanding of the Anatomy and Physiology course may and the systems of the body. | human body and how it function | •                    |

2410 Sports Medicine Grades: 11-12

Credits: 0.5 Career Pathways: SH

Prerequisites: Biology Competencies:

Description:

The course provides an overview of the role of a certified athletic trainer in the high school or clinical setting. Students will be instructed in the basics of anatomy, physiology, and kinesiology as they relate to athletic injuries. Students will engage in many hands-on activities and practices that will prepare the students for a

future career as an athletic trainer. Techniques and skills will be taught including taping, wrapping,

rehabilitation and treatment modalities along with basic first aid.

2420 Medical Terminology Grades: 11-12

Credits: 0.5 Career Pathways: HS, SH

Prerequisites: None Competencies: Research Writing

This course is a systematic approach to developing the extensive medical vocabulary used in health care occupations. Through a study of root words, prefixes and suffixes, the course will provide the ability to identify, build and recognize terminology used to describe the human body as well as not helping large second

Description: identify, build and recognize terminology used to describe the human body as well as pathological processes,

procedures, conditions and diseases that may affect it. This is a beginner level course for students interested

in the healthcare or medical fields. No previous knowledge of these topics is necessary.

2430 Intro to Forensics Grades: 11-12

Credits: 0.5 (Core Credit) Career Pathways: SH

Prerequisites: Biology + Chemistry Competencies: Lab Science

This course will explore the aspects of science which relate to forensics. The course will also feature careers available in this fascinating field of study. Topics may include: crime scene processing, collection of evidence, visualizing, lifting and rolling fingerprints, fingerprint analysis, footwear and tire impressions, fiber analysis,

glass analysis, hair analysis, drug testing and analysis, testing of body fluids and blood stain pattern analysis.

2440 Microbiology Grades: 11-12

Credits: **0.5 (Core Credit)** Career Pathways: SH

Prerequisites: Biology + Chemistry Competencies: Lab Science

This course will introduce microorganisms and how they affect our lives in both helpful and harmful ways.

Description: Topics include: Introduction to microbiology, microscopy, preparation of specimens, microbial growth,

microbial genetics, bacteria, viruses, important eukaryotes and infectious diseases.

Special Note:

Beginning in the 2021-2022 school year, this course will only be offered during years that end with an odd

number (2021, 2023, 2025, etc.)

2460 Marine and Ocean Studies Grades: 11-12

Credits: 1.0 (Core Credit) Career Pathways: SH

Prerequisites: Biology + (Chem, Physics, or Envi Sci) Competencies: Lab Science

This course focuses on the physical and biological properties of Earth's marine environments. Topics include

coastal ecology, pollution, currents and tides, navigation, maritime history, seafloor geology, life zone

Description: studies, identification of marine organisms and their characteristics. Use of the Internet and data collection

equipment will be utilized extensively during this course.

| 2490           | Earth and Space Science  |                              | Gr                         | rades: 11-12      |
|----------------|--|------------------------------|----------------------------|-------------------|
| Credits:       | 1.0 (Core Credit)  | Career Pathways:             | SH                         |                   |
| Prerequisites: | Biology + (Chem, Physics, or Envi Sci)   | Competencies:                | Lab Science                |                   |
| Description:   | This class focuses on the processes the cover topics such as meteorology, geo include: History of Earth, Earth's Syste | logy, hydrology, soil, and a | astronomy. Units covered o | during the course |

# **SOCIAL STUDIES**

| 1000           | American Studies  |   | Grades: 9  |
|----------------|---|---|--|
| Credits:       | 1.0   | Career Pathways:  | This course is required for  |
| Prerequisites: | None  | Competencies:   | graduation; all students must<br>successfully pass this course.  |
| Description:   | including but not limited to to<br>developments, economic tra<br>Primary source texts will be a<br>analysis skills to interpret text<br>economic, and cultural chang<br>Comparisons between past have<br>required to successfully dem | utilized, requiring students to learn an<br>kt, then utilizing their knowledge to res<br>ges and conflicts had an impact on the<br>historical events and contemporary Am<br>nonstrate their learning through writte<br>oject. Throughout the course, students | war and change, technological<br>al diversity, and international diplomacy.<br>d practice effective historical thinking and<br>search and examine how political, social, |

| 1005           | AP US History  |  | <b>Grades: 10-12</b>   |
|----------------|--|--|--|
| Credits:       | 1.0  | Career Pathways:   | AC, BFIT, EIT, HS, SH  |
| Prerequisites: | None   | Competencies:  |  |
| Description:   | Placement test in May. Student<br>reading and writing skills, as we<br>necessary for success. This cou | ts who are successful on the AP tes<br>ell as willingness to devote consider | ationwide in preparation for the Advanced t will earn college credit. Exceptional rable time to homework and study are assessing historical materials, interpreting credible essays. |
| Special Note:  | It is recommended that studer cumulative GPA calculation.  | nts enrolled in AP courses take the  | AP Exam. This course is weighted .5 for  |

| 1100           | Government  |   | Grades: 10  |
|----------------|---|---|---|
| Credits:       | 1.0   | Career Pathways:  | All students must successfully pass   |
| Prerequisites: | None  | Competencies:   | a Government course to graduate.  |
| Description:   | social issues and reforms. Emphas<br>issues. Examination of the federal<br>course. Each unit will allow the stu | hich the American government i<br>is will be placed on the relations<br>, state, and local levels of govern<br>udent to research and analyze th | overnment, its organization and is involved in economic, religious, and whip between government and economic ament will be conducted throughout the lie various components of government. In many the conducted in support of the curriculum. |

| 1150           | <b>Honors Government</b>   |   | Grades: 10  |
|----------------|--|---|---|
| Credits:       | 1.0  | Career Pathways:  | All students must successfully pass   |
| Prerequisites: | None   | Competencies:   | a Government course to graduate.  |
| Description:   | but with an increased empha<br>American government, the cr<br>impact of special interest gro<br>opportunity to develop perso<br>issues. Honors students are e<br>and verbally executed tasks. experience in Advanced Place | sis on the ideological and intellectual in<br>reation and reform of laws, structure a<br>ups and the media on governmental of<br>smalized projects in areas of public polic<br>expected to successfully demonstrate the<br>This course will also prepare students | cy that relate to current, real-world cheir learning through a variety of written for college-level work and a successful ses. Several student-driven substantial |

| 1105           | AP US Government and Politics  |                                   | Grades: 10-12                                   |
|----------------|--|-----------------------------------|---|
| Credits:       | 1.0 (Core Credit)  | Career Pathways:                  | All students must successfully pass             |
| Prerequisites: | Teacher recommendation suggested   | Competencies:                     | a Government course to graduate. Communications |
| Description:   | This course provides an analytical perspective on government and politics in the United States through the study of general concepts used to interpret US politics and analysis of specific examples. It requires familiarity with various institutions, groups, beliefs and ideas that constitute US politics: Our Government's Constitutional underpinnings, our cultural beliefs and behaviors regarding politics, political parties/interest groups/mass media, governmental institutions and policy, civil rights and civil liberties. Students are to take the AP exam associated with this course; successful completion of which may result in college credit or advanced placement or both. |                                   |   |
| Special Note:  | It is recommended that students enro<br>cumulative GPA calculation.  | olled in AP courses take the AP I | Exam. This course is weighted .5 for            |

1200 **World Studies Grades: 11-12** Credits: 1.0 (Core Credit) Career Pathways: AC, BFIT, EIT, HS, SH Prerequisites: None Competencies: **Global Studies** This course focuses on political issues, economic developments, and culture of the world. Specific topics include geography, climate, history, and religion. Primary emphasis will be given to recent events and situations occurring around the globe and their impact on the rest of the world. Multiple geographic regions Description: (including but not limited to: Europe, Latin America, Africa, the Middle East, and Asia) will be covered, focusing on not just their history, but perhaps more importantly its cultural development and current issues. Frequent comparisons between these areas and America will be examined.

| 1250           | Honors World Studies  |   | Grades:  | 11-12  |
|----------------|---|---|--|--|
| Credits:       | 1.0 (Core Credit)   | Career Pathways:  | AC, BFIT, EIT, HS, SH  |  |
| Prerequisites: | None  | Competencies:   | Global Studies   |  |
| Description:   | This honors course is designed to proving historical concepts and thematic units emphasis on primary source texts. Mu Africa, the Middle East, Asia, and Euro more importantly its cultural developm source materials to learn and practice utilizing their knowledge to research a conflicts have had an impact on the real America will be examined. Students we wariety of written and verbally executed level work and a successful experience. | as the academic-level World Studitiple geographic regions (including) will be covered, focusing on ment and current issues. Student effective historical thinking and nd examine how political, social gion in question. Frequent compil be required to successfully deed tasks. The course will also beg | udies course, but with an incoling but not limited to: Latin and just their history, but pets will use primary and secon analysis skills to interpret ted, economic, and cultural chaparisons between these areas monstrate their learning throgin to prepare students for coliniary | reased<br>America,<br>rhaps<br>idary<br>xts, then<br>nges and<br>s and<br>ough a |

| 1205           | AP World History: Modern  |                             | Grades: 11-12                              |
|----------------|---|-----------------------------|--|
| Credits:       | 1.0   | Career Pathways:            | AC, BFIT, EIT, HS, SH                      |
| Prerequisites: | Honors Government recommended   | Competencies:               | Global Studies                             |
| Description:   | AP World History is taught at a first-year college level and requires students to read, write, discuss, and analyze at an advanced level. The course will prepare students to take the AP examination with the possibility of earning college credit. Students will consider political, social, economic, and cultural developments in the period circa 1450-present. Additionally, students will develop proficiency in various historical thinking skills, through the use of primary and secondary source materials. Our studies will be supplemented with cultural and artistic learning opportunities. |                             |  |
| Special Note:  | It is recommended that students enr cumulative GPA calculation.   | olled in AP courses take th | ne AP Exam. This course is weighted .5 for |

1300 Law I **Grades: 10-12** Credits: 0.5 (Core Credit) AC, BFIT, EIT, HS, SH Career Pathways: Prerequisites: None Competencies: Communications This elective provides an introduction to law and the American legal system. Focusing on the rights and responsibility of citizens in a democracy, Law I includes the study of: civil liberties, torts, family law, Description: consumer law, school law and special topics relating to current events. Guest speakers and real-world learning experiences will be included when possible.

Special Note: This course only counts for core credit when taken in 11<sup>th</sup> or 12<sup>th</sup> grade.

| 1310           | Honors Law II  |                                   | <b>Grades: 11-12</b>             |  |
|----------------|--|-----------------------------------|----------------------------------|--|
| Credits:       | 1.0 (Core Credit)  | Career Pathways:                  | AC, BFIT, EIT, HS, SH            |  |
| Prerequisites: | Law I  | Competencies:                     | Communications, Digital Literacy |  |
| Description:   | This elective course explores the American criminal justice system. Causes of crime, investigation strategies and techniques, the trial process (including jury selection, development of case strategy, questioning of witnesses, jury deliberation, and sentencing), corrections, juvenile justice, and hate crimes. Consideration of the law's role in the media will be interpreted and critiqued throughout the course. Students will demonstrate their understanding through an intense mock trial simulation and numerous real-world activities, requiring students to demonstrate strong written and verbal communication skills |                                   |                                  |  |
| Special Note:  | Beginning in the 2022-2023 school ye number (2023, 2025, 2027, etc.). Rea expected to treat case studies and se  | l case studies are an integral pa |                                  |  |

| 1320           | <b>Current Events</b>  |   | Grades: 9-12  |
|----------------|--|---|---|
| Credits:       | 0.5 (Core Credit)  | Career Pathways:                                | AC, BFIT, EIT, HS, SH   |
| Prerequisites: | None   | Competencies:                                   | Communications  |
| Description:   | cultural importance. Students<br>world. Class work will emphas | will study an array of events that a            | cial, political, economic, geographic and are currently impacting the U.S. and the nd discussion to understand how recent |
| Special Note:  | This course only counts for co                                 | ore credit when taken in 11 <sup>th</sup> or 12 | th grade.   |

| 1330           | Design Thinking 101   |   | Grades: 9-12  |
|----------------|---|---|---|
| Credits:       | 0.5 (Core Credit)   | Career Pathways:  | AC, BFIT, EIT, HS, SH   |
| Prerequisites: | None  | Competencies:   | Digital Literacy, Project-Based   |
| Description:   | that meet the needs of humans. Stud<br>then identifying an area for improve<br>of need and will work to develop one | dents will be interviewing and obs<br>ment. They will consider as many<br>e of those ideas. This class teache | re, Prototype, and Test to develop ideas serving people in their natural setting, ways as possible to approach the area s strategies to create critically. It also wes a significant amount of hands-on |
| Special Note:  | This course only counts for core cred   | dit when taken in 11 <sup>th</sup> or 12 <sup>th</sup> gra  | de.   |

| 1340           | Sports in Society   |   |   | Grades:                                       | 10-12                            |
|----------------|---|---|---|---|----------------------------------|
| Credits:       | 0.5   | Career Pathways:  | HS, BFIT  |   |                                  |
| Prerequisites: | None  | Competencies:   | Project-Based   |   |                                  |
| Description:   | This quarter course will identify and Students with an interest in social st course. Major topic areas will include Politics in Sports, Race and Multicult Sports and Sports Technology. The c facing sports. | udies, sports, business, equality a<br>e: Why People Like to Play and W<br>uralism, Equality in Sports, The R | and cultural chan<br>/atch, Globalizati<br>ole of the Fan, th | ge would enj<br>on, Nationali<br>ie Mega(Busi | joy this<br>ism and<br>iness) of |

| 1350           | Geography  |                  | Grades: 9-12  |  |
|----------------|--|------------------|---|--|
| Credits:       | 0.5 (Core Credit)  | Career Pathways: | AC, BFIT, EIT, HS, SH   |  |
| Prerequisites: | None   | Competencies:    | Digital Literacy, Global Studies  |  |
| Description:   | Students will be developing spatial awareness by analyzing maps, charts, and graphs to understand the interaction between humans and their environment. An analysis of how the earth naturally functions is followed by what it takes for human society to function, including infrastructure and use of resources. The two are then connected and a careful consideration of how humans impact the planet and how this can be improved. |                  |   |  |
| Special Note:  |  |                  | offered during years that end with an even<br>re credit when taken in 11 <sup>th</sup> or 12 <sup>th</sup> grade. |  |

| 1360           | Economics  |  | Grades: 9-12   |
|----------------|--|--|--|
| Credits:       | 0.5 (Core Credit)  | Career Pathways:   | AC, BFIT, EIT, HS, SH  |
| Prerequisites: | None   | Competencies:  | Digital Literacy   |
| Description:   | students an understanding of competition, supply and dem | our economic system. The areas of<br>and, inflation and deflation. The rol<br>ication by analyzing business decisi | ess Pathway. This course is designed to give<br>f emphasis include the concepts of<br>le of the consumer is emphasized. The<br>ions and investing, and comparison of |
| Special Note:  |  |  | e offered during years that end with an odd<br>ore credit when taken in 11 <sup>th</sup> or 12 <sup>th</sup> grade.  |

| 1370           | Military History I   |                                 | Grades: 9-12                   |
|----------------|--|---------------------------------|--------------------------------|
| Credits:       | 0.5 (Core Credit)  | Career Pathways:                | AC, BFIT, EIT, HS, SH          |
| Prerequisites: | None   | Competencies:                   | Communications, Global Studies |
| Description:   | This course examines America's military history beginning with the Indian Wars of the early 17th century colonial period, through the major wars and conflicts during the 18th and 19th centuries. The course analyzes the evolution, and development of US military strategy, operations, and tactics; examines the changes and improvements in military organization and command and control, and operational planning and logistics support; and assesses the major technological advances in America's weapons, communications, and intelligence gathering capabilities. The course examines America's wars and major conflicts, including the War of Independence, Mexican War, Civil War and Spanish-American War. |                                 |                                |
| Special Note:  | This course only counts for core   | credit when taken in 11th or 12 | th grade.                      |

| 1380           | Honors Military History II  |                  | <b>Grades: 10-12</b>           |
|----------------|---|------------------|--------------------------------|
| Credits:       | 1.0 (Core Credit)   | Career Pathways: | AC, BFIT, EIT, HS, SH          |
| Prerequisites: | None  | Competencies:    | Communications, Global Studies |
| Description:   | This advanced course will follow the course of the United States military from the dawn of the 20th Century up through the Post-Cold War world. The course will pick up where Military History I left off by exploring the parallel course that both the nation and military share as the United States emerges as a superpower. Students will use oral history and research skills to help develop a collection of veterans' memoirs for the historical societies. There will be several required readings as well as guest speakers (veterans and reenactors) and field trips to round out the course of study. |                  |                                |
| Special Note:  | Beginning in the 2021-2022 school year, this course will only be offered during years that end with an even number (2022, 2024, 2026, etc.). This course only counts for core credit when taken in 11 <sup>th</sup> or 12 <sup>th</sup> grade.  |                  |                                |

| 1390           | Sociology  |                  | <b>Grades: 11-12</b>          |
|----------------|--|------------------|-------------------------------|
| Credits:       | 1.0 (Core Credit)  | Career Pathways: | AC, BFIT, EIT, HS, SH         |
| Prerequisites: | None   | Competencies:    | Communications, Project-Based |
| Description:   | This elective course studies the dynamics of group relationships with American society. Major areas of concentration include sociological research and theory, cultural diversity and conformity, social structure and the socialization process, social control and deviance, social stratification, as well as racial, ethnic and gender inequality. Students will have the opportunity to develop their own sociological study based on a real-world problem. |                  |                               |

| 1400           | Intro to Psychology  |                  | Grades: 11-12  |
|----------------|--|------------------|--|
| Credits:       | 1.0 (Core Credit)  | Career Pathways: | AC, BFIT, EIT, HS, SH  |
| Prerequisites: | None   | Competencies:    | Digital Literacy, Project-Based  |
| Description:   | This elective course is designed to give the student a broad study of the fundamental concepts and ideology of modern psychology. This course will cover basic familiarity with many of the fundamental concepts and principles of modern psychology while providing more opportunities for enrichment within a broader variet of topics. In addition, the student will be required to complete a number of projects, including supplementar reading with accompanying position papers and a number of self-directed projects intended to deepen their understanding of the science and of themselves. |                  | ny of the fundamental concepts and for enrichment within a broader variety per of projects, including supplemental |

| 1405           | AP Psychology  |                              | Grades: 11-12                             |
|----------------|--|------------------------------|---|
| Credits:       | 1.0 (Core Credit)  | Career Pathways:             | BFIT, HS, SH                              |
| Prerequisites: | Prior Honors/AP Experience recommended   | Competencies:                | Communications                            |
| Description:   | 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. The course ultimately focuses on preparing the student for success on the AP Exam. |                              |   |
| Special Note:  | It is recommended that students enr cumulative GPA calculation.  | olled in AP courses take the | e AP Exam. This course is weighted .5 for |



Cumberland Perry Area Career and Technical Center (CPACTC) serves students from fourteen high schools in Cumberland, Perry, York, and Adams County. CPACTC is an extension of your high school, offering comprehensive instruction in 22 career and technical programs. Students attend CPACTC for half of their school day, taking courses in their technical program plus social studies. Students attend their sending high school for English, Science, Mathematics, Physical Education, and other graduation requirements.

The full scope of skills and competencies in the technical programs at CPACTC are taught over a three-year course sequence. However, students may attend CPACTC for one or two years to support their career goals.

CPACTC students are expected to be responsible and respectful, demonstrating safe work habits at all times. Students must be able to understand and comply with all school rules and procedures.

CPACTC has a competitive application process. Students are admitted based on their application score and school district enrollment quotas. See your sending school counselor for an application. Clicking on the program names below will connect you to the program web page at www.CPACTC.org.

## 2023-2024 CAREER PATHWAYS AND PROGRAMS AT CPACTC

| CONSTRUCTION AND MAINTENANCE   | ARTS & TECHNOLOGY   |
|--|---|
| <u>Carpentry</u> <u>Electrical Construction and Maintenance</u> <u>Heating/Ventilation/Air Conditioning</u> <u>Horticulture/Landscaping</u> <u>Masonry</u> | Advertising Art & Design  Computer Networking  Computer Programming                                   |
| MANUFACTURING  Automation, Robotics & Electronics  Precision Machine Technology  Welding Technology  | <u>Dental Assistant</u> <u>Nurse/Nursing Assistant</u> <u>Emerging Health Professionals</u>           |
| HUMAN SERVICES AND HOSPITALITY  Cosmetology Criminal Justice Culinary Arts Early Childhood Education   | Auto Collision Technology  Automotive Technology  Diesel Technology  Logistics & Warehouse Management |

Additional information on curriculum, college credit opportunities, and uniform requirements is available online at <a href="https://www.cpatech.org/">https://www.cpatech.org/</a>.



## ADVANTAGES FOR STUDENTS ATTENDING CPACTC

## Earn College Credit - College in the High School Program

The College in High School (CHS) program allows high school students to take college classes while enrolled at CPACTC during the regular school day. Students who are eligible to take College in the High School courses can earn credits toward high school graduation and credits towards a college degree at the same time. Harrisburg Area Community College or Pennsylvania College of Technology assesses and approves CPACTC instructors to teach these courses. HACC or Penn College awards college credits to students who complete the courses with a passing grade and all credits are eligible to transfer to other colleges and universities depending on agreements with those schools. For College in the High School course details go to <a href="https://www.cpatech.org/">https://www.cpatech.org/</a>.

## Earn College Credit - Program of Study (POS) College Articulation Agreements

Twenty programs at CPACTS are recognized by the Pennsylvania Department of Education as a "Program of Study". Students in these programs have the opportunity to earn college credit at various post-secondary schools in Pennsylvania provided they meet the following requirements:

- 1. Graduate from high school
- 2. Earn at least 2.5 GPA in your program courses
- 3. Achieve a score of "Advanced" or "Competent" on the NOCTI exam
- 4. Successfully complete all tasks on the Program of Study task list requires all three years of a program.

Suggested Course Sequence by the Pennsylvania Department of Education for Programs of Study for Students Enrolled in Career and Technical Programs:

| Grade 9                  | Grade 10                        | Grade 11               | Grade 12           |
|--------------------------|---------------------------------|------------------------|--------------------|
| English                  | English English English         |                        | English            |
| Earth Science            | Earth Science Biology Chemistry |                        | Elective           |
| Social Studies           | Social Studies                  | Social Studies         | Social Studies     |
| Algebra I or Pre-Algebra | Geometry or Algebra I           | Algebra II or Geometry | Additional Math    |
| Physical Education       | Physical Education              | Physical Education     | Physical Education |
| Electives                | CPACTC Program                  | CPACTC Program         | CPACTC Program     |

Additional information on Program of Study and which colleges are participating can be found at https://www.cpatech.org/.

## Earn a Pennsylvania Skills Certificate

The Pennsylvania Skills Certificate was created by the PA Department of Education to recognize career and technical education students who have shown advanced skill achievement in their career and technical program. Students must complete 50% of the program and be seniors to be eligible to earn a PA Skills Certificate.

To earn the Pennsylvania Skills Certificate, students must achieve at the advanced level on the end of program NOCTI test. The test consists of two parts – written and performance. The written test covers factual knowledge, technical information, understanding of academic principals and problem solving related to the technical field. The performance test allows students to demonstrate their skills to industry professionals who proctor the exam.

## **Earn Industry-Recognized Certifications**

CPACTC have the opportunity to earn industry certifications which are specific to their career program. Examples include PA State Inspection certification for Auto Tech students and Certified Nursing Assistant certification for nursing students. A complete list of certifications is listed under each program description. During the 2017-2018 school year, over 300 CPACTC students earned at least one industry certification.



## CONSTRUCTION AND MAINTENANCE

### **CARPENTRY**

COMPETENCIES: LAB SCIENCE, PROJECT-BASED

There are two types of carpentry work: rough and finish. Rough carpentry includes framing, boarding, sheathing, bracing, roofing, and studding; finish carpentry includes the installation of finished flooring, stair work, siding, trim, wallboards, windows, and hardware. Students in the Carpentry program will learn the basics of both rough and finish carpentry, including such areas as blueprint reading, using power and hand tools, framing techniques, installing trim and hardware, estimating, and identifying materials. Many of these skills are developed through live work projects performed throughout the school. Safety instruction is emphasized throughout the program.

#### **Potential Career Pathways**

#### Carpenters - \$46,080.00 Construction Laborers - \$37.920.00\* Construction Managers - \$95,260\* Supervisors-Construction & Ext. Workers - \$68.310\* Construction and Building Inspectors - \$57,110 Cabinet Makers & Bench Carpenters - \$36,410

#### **Industry Certifications**

OSHA-10 ASHI Basic First Aid **ASHI CPR & AED** JLG Aerial Work Platform JLG Material Handler JLG Scissor Lift PA Builders Association

### **College Credits** (Visit our website to view all college articulation partners)

2020 PA Dept. of Labor In Demand Occupation List

2020 PA Dept. of Labor High Priority Occupation \*ONET Online Bright Outlook Occupation 2020 (Median Wage as of 2020)

### **ELECTRICAL CONSTRUCTION AND MAINTENANCE**

**COMPETENCIES: LAB SCIENCE, PROJECT-BASED** 

Students in the Electrical Construction & Maintenance program receive classroom training and practical experience in the installation of circuits, switches, conduits, circuit breakers, and other electrical devices; instruction includes the proper use and care of hand tools and equipment used to install electrical systems on a construction site. Students learn to connect and disconnect electrical equipment and determine proper installation and operation of electrical work, apply procedures used in interior circuits and outlets, and troubleshoot electrical malfunctions. Special emphasis is placed on the National Electric Code Specifications used in residential, commercial, and industrial electrical construction projects.

#### **Potential Career Pathways**

#### Electrical Engineers - \$98,530\* Electrical Power-Line Installers & Repairers - \$81,380.00 Supervisors-Construction & Ext. Workers - \$68,310\* Electricians - \$57,300.00\* Security and Fire Alarm Installer - \$48,970\*

## **Industry Certifications**

OSHA-10 JLG Material Handler NJATC 1st Year Apprenticeship IEC 1st Year Apprenticeship PA Builder's Assoc. Skills Cert

## **College Credits**

(Visit our website to view all college articulation partners)

2020 PA Dept. of Labor High Priority Occupation \*ONET Online Bright Outlook Occupation 2020 (Median Wage as of 2020) 2020 PA Dept. of Labor In Demand Occupation List

## HEATING, VENTILATION, AIR CONDITIONING, AND REFRIGERATION

**COMPETENCIES: LAB SCIENCE, PROJECT-BASED** 

The Heating, Ventilation and Air Conditioning (HVAC) program provides the fundamentals of installation, repair, and maintenance of equipment and accessory parts used for heating, air conditioning, and cooling systems. Students learn basic electricity as it applies to the electrical power source and activities used in air conditioning, heating, and refrigeration units. Various equipment and training simulators are used to teach basic refrigeration in chilling and freezing systems. They will learn to solder and braze while developing skills required for the installation, repair, and maintenance of air conditioning, heating, and refrigeration units. Instruction includes: connecting ducts, refrigerant lines, and electrical hookups to power sources; the removal and/or replacement of parts by using torches, electrical meters, testing equipment, gauges, and hand tools; diagnosing unit breakdowns; disassembling and reassembling systems; making adjustments to ensure efficient operations; and reading basic blueprints and writing diagrams. The program also covers many of the basic skills needed in the plumbing trade, providing these students interested an opportunity to pursue a career in plumbing.

#### Potential Career Pathways

#### Energy Engineers - \$99,040 HVAC Mechanics & Installers - \$51,880.00 Geothermal Technicians - \$39.830

#### **Industry Certifications**

EPA 608 Pa Builder's Association Skills Cert.

#### **College Credits**

Offered Thru HACC

HVAC 100-EPA Refrigeration HVAC 101-Basic Elec. Func. HVAC 103-Fund. Of A/C **HVAC 109-Heating Systems** 

(Visit our website to view all college articulation partners)

2020 PA Dept. of Labor In Demand Occupation List

There are several career pathways in the **Horticulture** program. Greenhouse managers, soil and plant scientists, groundskeepers, and landscape designers are just a few of the occupations in this wide-ranging field. Students spend time in the greenhouse, classroom, and outdoors as they learn identification, botany, proper plant care, and other factors impacting care and growth of plant materials. This knowledge is then utilized in the design and preparation of decorative and functional sites. Topics include sustainable practices such as hydroponics and environmental issues facing today's society, design and installation of plants, ponds, and hardscaping, laws and zoning regulations, business ethics and practices, safety and equipment operation, floral design, turf management and irrigation, and other related areas. We also offer college in the high school along with certifications for OSHA. Come explore the opportunity waiting for you!

| Potential Career Pathways                             | <b>Industry Certifications</b>       | College Credits   |
|---|--------------------------------------|---|
| Farmworkers/Laborer (Greenhouse) - \$32,070           | OSHA 10                              | Offered thru Pennsylvania College of Technology               |
| Landscaper/Groundskeeper - \$31,600                   | PA Certified Horticulturalist Assoc. |   |
| Supervisor-Landscapers and Groundskeepers - \$49,370* | Pesticide Certification              | HORT 101-Intro. Ornamental Horticulture                       |
| Pesticide Handler, Sprayer, Applicator - \$35,840     |                                      | HORT 113-Ornamental Plants                                    |
| Grounds Maintenance Workers - \$32,090*               |                                      |   |
| Soil and Plant Scientist - \$63,200                   |                                      | (Visit our website to view all college articulation partners) |

2020 PA Dept. of Labor In Demand Occupation List

2020 PA Dept. of Labor High Priority Occupation

\*ONET Online Bright Outlook Occupation 2020 (Median Wage as of 2020)

## **MASONRY**

## **COMPETENCIES: LAB SCIENCE, PROJECT-BASED**

The **Masonry** program provides the fundamental skills needed to work with bricks, blocks, and concrete. Students learn brick and block laying; mortar mixing; scaffold construction; building construction; the proper use of masonry tools; and how to read blueprints to determine an accurate brick layout following the builder's specifications. Additionally, students check alignment and positioning of bricks by using a dry course; check for horizontal or vertical straightness by using a mason's level; gauge lines, and plumb lines; and use story gauge rods to check work. Special emphasis is placed on mortar mixing and proper spreading of mortar to ensure accurate spacing of the joints. Students learn the safe use and proper care of hand tools such as trowels, jointers, rules, squares, brick hammer, mason levels, and gauge lines.

| Potential Career Pathways   | Industry Certification                          | ns College Credits   |
|---|---|--|
| Brickmason and Blockmason - \$55,320<br>Cement Masons/Concrete Finishers - \$54,910 | OSHA 10<br>JLG Material Handler                 | Offered thru Pennsylvania College of Technology                      |
| Tile and Stone Setters - \$54,240<br>Helpers-Brick/Block/Stonemason - \$46,130      | PA Builder's Assoc. Skills Co                   | ert. BCT 234-Masonry Principles-PCT                                  |
|   |   | (Visit our website to view all college articulation partners)        |
| 2020 PA Dept. of Labor In Demand Occupation List                                    | 2020 PA Dept. of Labor High Priority Occupation | *ONET Online Bright Outlook Occupation 2020 (Median Wage as of 2020) |



## ARTS AND TECHNOLOGY

## ADVERTISING, ART, AND DESIGN

COMPETENCIES: ARTS AND HUMANITIES, DIGITAL LITERACY, PROJECT-BASED

A large percentage of merchandising and advertising for modern promotion is done through the medium of Advertising Art and **Design.** The purpose of this course is to help prepare students for an entry-level job or to prepare the student to advance into post-secondary training at colleges and art schools. Throughout the program, students will maintain a portfolio to promote their work and talent when they graduate. The major emphasis is on the basic principles of design: color, development of skills, exploration of media, and Advertising Art and Design practices. Special emphasis is placed on manual illustration and layout skills in the area of art production, technical features of design, layout and composition, and color theory. Students will prepare graphic and advertising projects from the idea stage through to pre-press using the current Adobe Creative Suite software.

#### **Potential Career Pathways**

#### **Industry Certifications**

## **College Credits** (Visit our website to view all college articulation partners)

Graphic Designers - \$49,150 Desktop Publishers - \$45,390 Special Effects Artists and Animators - \$75,270 Commercial and Industrial Designer - \$68,890

Adobe Photoshop Adobe InDesign Adobe Illustration

2020 PA Dept. of Labor In Demand Occupation List

#### 2020 PA Dept. of Labor High Priority Occupation \*ONET Online Bright Outlook Occupation 2020 (Median Wage as of 2020)

## **COMPUTER NETWORKING**

#### COMPETENCIES: COMMUNICATIONS, DIGITAL LITERACY, PROJECT-BASED

The Computer Networking program is designed to give students a broad background in the fundamentals of designing, installing, and maintaining a computer network. Specifically, students will cover the following topics: Computer hardware, troubleshooting, repair, and maintenance, operating systems and software, network technologies, network media and topologies, network devices, network management, network tools and troubleshooting, and security fundamentals. Emphasis will be placed on preparing students to test for industry credentials and certifications.

| Potential | Career | Pathways |
|-----------|--------|----------|
|-----------|--------|----------|

#### **Industry Certifications**

## **College Credits** Offered thru HACC

Information Security Analyst - \$101,390\* Network/Comp. System Admin. - \$80,250 Web Developer - \$72,190\* Computer User Support Spec. - \$53,530\*

CompTiA A+ CompTiA Net + CCNA

CNT 120-Network Tech Communications I CNT 125-Network Tech Communications II

(Visit our website to view all college articulation partners)

2020 PA Dept. of Labor In Demand Occupation List

2020 PA Dept. of Labor High Priority Occupation \*ONET Online Bright Outlook Occupation 2020 (Median Wage as of 2020)

## **COMPUTER PROGRAMMING**

### COMPETENCIES: COMMUNICATIONS, DIGITAL LITERACY, PROJECT-BASED

In Computer Programming students will learn to write, develop, and test code for applications to run on computer systems. In addition, they will learn about analyzing and designing solutions to troubleshoot software issues. Students will cover the following topics: understanding computer basics, interpret logical expressions using Boolean Algebra, create simple programs using algorithms, apply program analysis for evaluating algorithms and testing and debugging systems, and learn about computing practice focusing on data structures and object-oriented program design. Emphasis will be on completing college level course work leading to earning college credits through our agreement with Harrisburg University of Science and Technology.

## **Potential Career Pathways**

### **Industry Certifications**

#### **College Credits**

Software Developers - \$99,280\* Web Developer - \$72,190\* Computer Net. Supp. Spec. - \$53,530\* Offered thru Harrisburg University

CISC 120-Fund. Of Computing CISC 160-Data Structures CISC-Essential Algorithms

(Visit our website to view all college articulation partners)

2020 PA Dept. of Labor In Demand Occupation List



## **HEALTH SCIENCES**

## **DENTAL ASSISTANT**

COMPETENCIES: LAB SCIENCE, PROJECT-BASED, WELLNESS

Students in the **Dental Assisting** program learn how to properly aid dentists and dental hygienists. During the course of the program, they will learn the proper techniques that go into every aspect of assisting in a dental office, from taking x-rays to scheduling appointments. To ensure that students are trained as accurately as possible, they practice on modern dental equipment and become familiar with tools common to the profession. Other asks assigned in this program include learning proper sterilization, instrument transferal, infection control, and preventative healthcare techniques; and assisting with basic dental procedures. While students emerge from the Dental Assisting program fully equipped to work as a dental assistant, further education is required before the student can achieve other positions in the field.

| <b>Potential</b> | Career | Pathways |
|------------------|--------|----------|
|------------------|--------|----------|

#### **Industry Certifications**

#### **College Credits** Offered thru HACC

Dental Assistant - \$40.290\* Dental Lab Technician - \$41,340\* Dental Hygienist - \$67,910\*

Radiation Health and Safety Infection Control ASH CPR & AED ASHI Basic First Aid

DA 170-Pre Dental Clinic DA 171-Dental Assist I DA 173-Dental Radiology I

(Visit our website to view all college articulation partners)

2020 PA Dept. of Labor In Demand Occupation List

2020 PA Dept. of Labor High Priority Occupation \*ONET Online Bright Outlook Occupation 2020 (Median Wage as of 2020)

## **NURSE/NURSING ASSISTANT**

COMPETENCIES: COMMUNICATIONS, LAB SCIENCE, PROJECT-BASED, WELLNESS

Students in the Nursing Assistant program explore a variety of health professions to develop an awareness of job opportunities in the field. They develop the skills needed to perform effectively in entry-level positions and to receive a good foundation for continued study. Nursing program students learn patient care, first aid, and laboratory skills, and receive simulated work experiences such as assisting doctors with physical exams; demonstrating laboratory skills; assisting with patient care in the office or hospital; and practicing long-term care settings. Special emphasis is placed on personal hygiene; instrument and equipment identification; telephone training; correspondence and record keeping; basic nursing procedures; infection control; standard precautions; sterilization; and OSHA standards. Students are also given instruction in the sciences related to this field including medical terminology, anatomy, pharmacology, and laboratory techniques. This program will provide students with an opportunity to learn advanced functions, including clinical experience with patients through affiliation with Bethany Village Retirement Community.

### **Potential Career Pathways**

## **Industry Certifications**

#### **College Credits** Offered thru Pennsylvania College of Technology

Nursing Assistants - \$31,590 Home Health Aide - \$25,810 Registered Nurse - \$73,300\*

Certified Nursing Assistant Personal Care Aide ASHI CPR & First Aid + Basic First Aid Act 31 Mandated Reporter OSHA 10 (Healthcare)

MTR 100-Medical Terminology Survey MTR 104-Basics of Medical Terminology

(Visit our website to view all college articulation partners)

2020 PA Dept. of Labor In Demand Occupation List

2020 PA Dept. of Labor High Priority Occupation \*ONET Online Bright Outlook Occupation 2020 (Median Wage as of 2020)

## **EMERGING HEALTH PROFESSIONALS PROGRAM**

The Emerging Health Professionals Programs is SENIOR ONLY program that combines college level dual enrollment courses, job shadowing in various healthcare facilities, and a skills-based patient care curriculum. The program is designed for high school seniors interested in a pathway towards careers requiring post-secondary education in the healthcare industry. The Emerging Health Professionals Program is a half-day program that runs the duration of the school year in conjunction with required high school curriculum. Students spend two days a week taking college courses, two days a week in a health care setting and one day a week developing skills. Students in this program take Anatomy and Physiology I and II at our partner college for a total of eight college credits. Applicants must have completed one year of high school Biology and one year of high school Chemistry with a GPA of 3.0 (or % equivalent). Students must provide their own transportation and are responsible for college dual-enrollment costs. This program has a separate application, which may be found at <a href="https://www.cpatech.org/">https://www.cpatech.org/</a> → Programs → Health Sciences → Emerging Health Professionals.



## **HUMAN SERVICES AND HOSPITALITY**

## **CULINARY ARTS**

COMPETENCIES: LAB SCIENCE, PROJECT-BASED, WELLNESS

Culinary Arts is a program that offers a broad range of skills and knowledge concerning the selection, preparation, and handling of foods. Skill development will focus on: safety and sanitation; dining room service; preparation of food; buffet service; meat cutting; baking; store room procedures; and basic management skills. Unlike the home economics courses offered by most general high schools, the instruction and on-the-job training will be conducted in a fully equipped cafeteria and restaurant at Cumberland Perry Area Career and Technical Center.

#### **Potential Career Pathways**

## **Industry Certifications**

### **College Credits**

Chefs/Head Cooks - \$59,040\* Food Service Manager - \$55,320 Supervisor-Food Prep. & Servers - \$38,960 Cooks, Ins. & Café - \$30,090

Servsafe Manager Servsafe Food Handler Servsafe Allergens **ACF Certified Fundamentals Cook**  (Visit our website to view all college articulation partners)

Cooks-Restaurant - \$26,770

2020 PA Dept. of Labor In Demand Occupation List

2020 PA Dept. of Labor High Priority Occupation \*ONET Online Bright Outlook Occupation 2020 (Median Wage as of 2020)

## COSMETOLOGY

### **COMPETENCIES: COMMUNICATIONS, PROJECT-BASED**

The **Cosmetology** program at CPACTC gives students a great head start to a lucrative career. Our curriculum is rigid, however, by the time student's graduate they will have skills desirable to employers in the Cosmetology industry. Students in the program learn all aspects of hair care, skin care, and nail care, and not only do they practice on mannequins, but they practice on each other as well. Once the student earns 300 hours they are ready to apply skills to customers in the Cosmetology clinic. Instruction also includes resume writing, interviewing, marketing and retailing, so students are prepared to start the job search process. Students need to earn 1250 hours to be eligible to test for the PA Cosmetology License Exam.

#### **Potential Career Pathways**

#### **Industry Certifications**

#### **College Credits**

Spa Manager - \$110,630 Skincare Specialist - \$34,090\* Cosmetologist - \$27,290 Manicurist and Pedicurist - \$25.770 PA State Board of Cosmetology License

(Visit our website to view all college articulation partners)

2020 PA Dept. of Labor In Demand Occupation List 2020 PA Dept. of Labor High Priority Occupation \*ONET Online Bright Outlook Occupation 2020 (Median Wage as of 2020)

## **CRIMINAL JUSTICE**

## **COMPETENCIES: COMMUNICATIONS, PROJECT-BASED**

Students in the Criminal Justice program learn administrative procedures, vehicle code and accident investigation, crime codes and criminal investigation, prevention of crime, laboratory procedure, and supplemental activities. Simulated activities develop skills in procedures used in police patrol, criminal investigations, accident investigation, report writing, use of PA Crime Code and Pennsylvania Vehicle Code, first aid, and firearms training. Special emphasis is given towards each student's career objectives. Students develop skills needed to perform effectively in police departments and security agencies, and receive a good foundation for continued study in Police Administration, Criminal Justice or Police Science.

## **Potential Career Pathways**

## **Industry Certifications**

## **College Credits**

Supervisor-Police & Detectives - \$91,090 Detectives and Criminal Investigators - \$83,170 Emergency Management Directors - \$74,590\* Police/Sheriff Patrol Officer - \$68.940\* Correctional Officers/Jailers - \$55,330

NIMS IS 100 SERIES NIMS IS 200 SERIES NIMS IS 700 SERIES NIMS IS 800 SERIES Offered thru Pennsylvania College of Technology BEM 101-Into Emerg. Mgmt. Oper

Act 235 Lethal Weapons Training (HACC) ASHI CPR/AED Pro ASHI Basic First Aid

BEM 103-Hist. & Evol. Of Emerg. Mgmt. (Visit our website to view all college articulation partners)

2020 PA Dept. of Labor In Demand Occupation List

The Early Childhood Education program instructs students in the preparation and presentation of nutritional snacks, instructional materials, schedules, and curriculum plans. They will also cover how to manage parent involvement, enrollment, safety and health factors, and discipline. A portion of the program is devoted to child development and preschool child growth patterns. Students will develop techniques that will be applied in the preschool program. Time will be provided to do classroom observations of the preschool children, as well as peer observations while teaching. The student will be responsible for supervising the entire preschool laboratory school program including the children's schedule, attendance, greeting children, enrollment, art, music, science, and indoor/outdoor play activities. Students have a portion of the preschool day set aside for "Learning Centers", a time in which they work independently with an assigned preschool child in an area that the child is currently strengthening.

### **Potential Career Pathways**

#### **Industry Certifications**

#### **College Credits**

(Visit our website to view all college articulation partners)

Elementary School Teacher - \$59,670\* Childcare Admin.-Preschool & Daycare - \$48,210 Preschool Teachers - \$31,380 Childcare Workers - \$23,610\*

2020 PA Dept. of Labor In Demand Occupation List



## **HUMAN TRANSPORTATION AND LOGISTICS**

2020 PA Dept. of Labor High Priority Occupation \*ONET Online Bright Outlook Occupation 2020 (Median Wage as of 2020)

## AUTOMOTIVE COLLISION TECHNOLOGY

**COMPETENCIES: LAB SCIENCE, PROJECT-BASED** 

The Automotive Collision Technology Program provides students with the training necessary to repair damaged automotive vehicles. Instruction includes the repair and replacement of defective parts to restore a vehicle to good condition. Students learn how to operate hydraulic jacks, how to use pry bars, dolly blocks, and mallets for the removal of dents. Various techniques of metal finishing used to fill the damaged areas of vehicles with body plastics and how to grind and sand until the body is smooth are also covered. Our students also learn to replace auto body parts by installing new sections, and by welding new pieces and panels. Instruction in braising, soldering, and welding practices are stressed. Students develop skills in the preparation of surfaces to be painted, matching and mixing paint, and various spraying techniques. In addition, students install trim and glass, use gauges necessary for frame straightening, and estimate the cost of the repair service.

| Potential Career Pathways                          | Industry Certifications | College Credits   |
|--|-------------------------|---|
| Automotive Body & Related Repairers - \$47,970     | I-CAR                   | Offered thru Pennsylvania College of Technology               |
| Insurance Appraiser - \$63,270                     | PA Emissions            |   |
| Claims Adjuster, Examiner, Investigator - \$66,790 | Cat 1 Inspector         | ABC 100-Intro. to Non-Structural Repair                       |
|  | SP/2 Automotive         | ABC 104-Intro. to Non-Structural Repair Apps.                 |
|  | EPA 609-A/C             |   |
|  | OSHA Certification      | (Visit our website to view all college articulation partners) |

#### **AUTOMOTIVE TECHNOLOGY**

2020 PA Dept. of Labor In Demand Occupation List

### COMPETENCIES: LAB SCIENCE, PROJECT-BASED

The Automotive Technology program provides students with the entry-level skills and knowledge needed for a career in the automotive field. Specialized classroom and shop exercises are designed to provide instruction in the following areas: engine repair, suspension and steering, brakes, electrical/electronic systems, heating and air conditioning, engine performance, manual drive train and axles, automatic transmission/transaxle, emissions control, hybrid technology, and alternative fuels. Students are taught to use computerized technical service manuals and are also trained to participate in the Pennsylvania State Department of Transportation (PENNDOT) safety and emissions inspection program and test. Qualified level 3 students are able to participate in the cooperative education program. This program allows students to gain paid work experience at participating repair facilities while attending school.

| Potential Career Pathways                        | Industry Certification                          | ns College Credits   |
|--|---|--|
| Automotive Service Technicians - \$42,010        | I-CAR   | Offered thru Pennsylvania College of Technology                      |
| Automotive Engineers - \$88,430                  | PA Emissions                                    | AMT 112-Brake Systems  |
| Automotive Engineering Technicians - \$56,980    | Cat 1-3 Inspector                               | AMT 113-Steering & Suspension  |
| Auto Parts Salesperson - \$31,710                | EPA 609-A/C                                     |  |
|  | OSHA 10 Certification                           | (Visit our website to view all college articulation partners)        |
| 2020 PA Dept. of Labor In Demand Occupation List | 2020 PA Dept. of Labor High Priority Occupation | *ONET Online Bright Outlook Occupation 2020 (Median Wage as of 2020) |

## **DIESEL TECHNOLOGY**

## **COMPETENCIES: LAB SCIENCE, PROJECT-BASED**

Students in the Diesel Technology course will receive training in all areas of diesel engine construction, operation, troubleshooting and repair. Students also received instruction in maintenance, servicing, and repair of over-the-road trucks, trailers and transportation equipment. The first year of instruction will focus on diesel powered engines that are primarily related to transportation equipment, but can also be applied to diesel powered construction equipment, high lifts, farm machinery and other diesel-powered equipment. Electrical systems, turbo chargers, engine speed governors and lubrication systems are a few examples of the engine subsystems that are covered. Students will be assisted in developing a keen attention to detail, which is necessary for success in this trade. The second-and third-year students study the other components and systems of the truck such as transmissions, rear axles, clutches, drive lines, batteries, starters, alternators, steering, suspension, alignment and air conditioning, just to name a few. Instruction will be provided in oxyacetylene, AC/DC and MIG welding operations. Students who qualify will also be eligible to take the Pennsylvania State Department of Transportation (PENNDOT) safety and emissions inspection program and test for mechanics. They will also be eligible to gain the EPA, type 609 air conditioning certification.

| Potential Career Pathways   | Industry Certifications                  | College Credits   |
|---|--|---|
| Transportation Vehicle, Equipment, Sys. Inspector-\$75,820<br>Bus/Truck Mechanic & Diesel Engine Spec\$48,330 | Cat 1-7 Safety Inspector<br>PA Emissions | Offered thru Pennsylvania College of Technology<br>DSM 119-Fuel Systems |
| Automotive Service Technicians-\$42,010   | EPA 609-A/C<br>SP/2 Safety (various)     | DSM 141-Heavy Duty Brake Systems  |
|   |  | (Visit our website to view all college articulation partners)           |

2020 PA Dept. of Labor In Demand Occupation List

Logistics & Warehouse Management students will receive training in the technical and "hands on" aspects of operating a warehouse. Instruction will center on "inventory control", which is a plan for supply needs, control of goods received, efficient accessible storage, and proper distribution of materials. Effective record keeping is also a learned skill. Additional activities will include: materials organization, inspection of goods and accounting for warehouse merchandise, receiving and shipping practices, and the use of power equipment such as forklifts, electric pallet jacks, rollers, and conveyor belts for loading, unloading, or placement of packaged merchandise in warehouse or storage areas. Students will receive actual training in "live" work situations. His/her experience will be comprised of working in a warehouse area that stores in excess of \$100,000 of stock merchandise a year and will become familiar with handling merchandise that ranges in weight from one ounce to three tons. The program also offers the use of data base (computer) entry system for stored materials

#### **Potential Career Pathways**

#### **Industry Certifications**

#### **College Credits**

Material Handlers - \$30,290 Forklift Operators - \$36,800 Stock Clerks and Order Fillers - \$27,910\* Shipping, Receiving, Inventory Clerk - \$36,650 Transportation, Storage and Distrib. Mgr - \$103,260 Supply Chain Manager - \$94,560

Logistics Analyst - \$74,750

Certified Logistics Associate NSC Forklift Operator OSHA 10-General Industry (Visit our website to view all college articulation partners)

2020 PA Dept. of Labor In Demand Occupation List



## **MANUFACTURING**

## **AUTOMATION, ROBOTICS, AND ELECTRONICS**

COMPETENCIES: DIGITAL LITERACY, LAB SCIENCE, PROJECT-BASED

Automation, Robotics & Electronics (also commonly called "Electromechanical Technology" or "Mechatronics") is a three-year program that prepares students for employment and for continued education. Students will learn to design, install, troubleshoot, and repair today's modern automation, robotic, and industrial equipment. Instructional topics include: industrial motor controls, robotics and electronics, programmable logic controls, mechanical power transmission systems, fluid power systems/hydraulics/pneumatics, blueprints and schematics, electricity and electrical systems, and A/C and D/C Circuitry.

#### **Potential Career Pathways**

### **Industry Certifications**

#### **College Credits**

(Visit our website to view all college articulation partners)

Industrial Machinery Mechanics - \$52,510 Electrical and Electronic Engineering Tech. - \$65,260 Robotics Technician - \$58,350 Industrial Engineering Tech. - \$56,550 Electromechanical Technician - \$46,960

2020 PA Dept. of Labor In Demand Occupation List

2020 PA Dept. of Labor High Priority Occupation \*ONET Online Bright Outlook Occupation 2020 (Median Wage as of 2020)

## ADVANCED MANUFACTURING TECHNOLOGY

The Advanced Manufacturing Technology program prepares students for a challenging and rewarding career and provides entry level training for the manufacturing industry. Students will begin with bench work, blueprint reading, and layout. They will then progress to learning precision measuring tools and techniques to ten thousandths of an inch (.0001"). Students will also learn machining techniques on manual vertical milling machines and manual lathes before progressing on to CNC (Computer Numerical Control) machines. An emphasis on the programming and set up are also included in the CNC training along with instruction on MasterCam and SolidWorks computer software. The course is designed to prepare students for a career as a machinist, but is an excellent choice for a student with the desire to become an engineer.

#### **Potential Career Pathways**

#### CNC Machine Tool Programmers - \$58,550\* Machinists - \$46,340 CNC Machine Tool Operators - \$42,260

#### **Industry Certifications**

#### NIMS Measurement, Materials, Safety NIMS Job Planning NIMS Turning Between Centers NIMS Turning-Chucking NIMS CNC Turning: Prog. Set Up/Operations NIMS Manual Milling NIMS Drill Press Skills NIMS CNC Turning Operator

NIMS CNC Milling Operator NIMS Grinding Skills

IA 205-Numerical Control CNC (Visit our website to view all college articulation partners)

NIMS CNC Milling: Prog. Set OSHA 10-General Industry

#### 2020 PA Dept. of Labor In Demand Occupation List

**WELDING TECHNOLOGY** 

### 2020 PA Dept. of Labor High Priority Occupation \*ONET Online Bright Outlook Occupation 2020 (Median Wage as of 2020)

**College Credits** 

Offered thru HACC

MDES 207-Mach Shop Theory

MDES 101-Engineering Drawing

Welding offers training in oxyacetylene and AC/DC arc welding, semiautomatic MIG, plasma cutting, and TIG welding systems. Starting with planning and layout work, the student progresses to setting up and operating welding, brazing, and cutting equipment, oxyacetylene welding light gauge metals in all positions, and shielded metal arc welding in all positions. Emphasis is placed on blueprint reading to identify properties of metal, metal types, types and use of electrodes and welding rods, electrical principles, and welding symbols. The use of manuals and specifications charts and the understanding of welding standards established by the American Welding Society are stressed. Training will be offered in the planning, layout, forming, joining and fabrication of various shapes in light and heavy gauge metals and pipe. Students learn to use specialized hand tools and to operate shears, forming and shaping machines, drill presses, and metal cutting saws.

## **Potential Career Pathways**

## **Industry Certifications**

#### **College Credits** Offered thru HACC

Welders Cutters Solderers & Brazers-\$44 480 Structural Metal Fabricators & Fitters-\$40,390

AWS Shielded Metal Arc Welding (SMAW)-3G AWS Shielded Metal Arc Welding (SMAW)-4G AWS Gas Metal Arc Welding (GMAW)-3G AWS Gas Tungsten Arc Welding (GTAW)-3G AWS Fluxcore Arc Welding D1.1 A100 OSHA Certification

WELD 102-Oxy Fuel W & C

WELD 103-Shielded Metal Arc I WELD 120-Gas Metal Arc I

(Visit our website to view all college articulation partners)

2020 PA Dept. of Labor In Demand Occupation List

2020 PA Dept. of Labor High Priority Occupation

\*ONET Online Bright Outlook Occupation 2020 (Median Wage as of 2020)

# **APPENDIX A: TABLE OF COURSE COMPETENCIES**

| Students can earn these four competency areas in grades 9-12 |   |  |   |   |  |  |
|--|---|--|---|---|--|--|
| Arts and Humanities Communications                           |   | Digital Literacy   | Pro   | Project-Based   |  |  |
| AP Studio Art<br>Ceramics I<br>Ceramics II                   | Advanced FFA Leadership AP English Language AP Psychology     | Architectural Design Civil Engineering Computer Science Principles | Animal Science AP Studio Art Architectural Design                           | Photo Journalism Robotics Science of Animal Agriculture Sculpture I   |  |  |
| Concert Band<br>Concert Choir                                | AP US Gov't and Politics Babysitting/Aquatic Games            | Computer Science with Python Design Thinking 101                   | Babysitting/Aquatic Games<br>Ceramics I                                     | Sculpture II SkyOp Drones   |  |  |
| Digital Photography I<br>Digital Photography II              | Basic FFA Leadership<br>Current Events                        | Digital Photography I<br>Digital Photography II                    | Ceramics II Civil Engineering   | Small Animal Science<br>Small Gas Engines                             |  |  |
| Drawing and Painting I Drawing and Painting II               | Design and Innovation Workshop<br>Exploring Presentations     | Economics<br>Electronics   | Computer Science Principles Computer Science with Python                    | Sports & Entertainment Management                                     |  |  |
| Honors Drawing & Painting III Guitar Lab Honors French IV    | French II French III  | Engineering Design Equine Science Exploring Presentations          | Creative Writing Design and Innovation Workshop Design Thinking 101         | Sports in Society Statistics Structural Engineering                   |  |  |
| Honors French V Honors Spanish IV                            | Honors French IV Honors French V                              | Fish and Wildlife Management I French I                            | Digital Photography I Digital Photography II                                | Sustainability Engineering Veterinary Science                         |  |  |
| Honors Spanish V<br>Introduction to Music Theory I           | Business 101<br>Law I   | French II<br>French III  | Draw/Painting I<br>Drawing & Painting II                                    | Video Game Design I<br>Video Game Design II                           |  |  |
| AP Music Theory Jazz Studies                                 | Honors Law II Mass Media                                      | Honors French IV Honors French V                                   | Electronics Engineering Design  | Web Page Design Welding   |  |  |
| Lighting & Sound Design<br>Music History<br>Music in Film    | Military History Honors Military History Public Speaking      | Geography Honors Law II Honors Tech Edu Capstone                   | English - Opus Equine Science Essential Home Projects                       | Wood Production<br>Wood Tech I  |  |  |
| Music Technology Lab I<br>Music Technology Lab II            | Real World Research<br>Sociology                              | Intro to Agribusiness Intro to Drafting                            | Event Planning Exploring World Tourism                                      | CPACTC Shops Advanced Manufacturing Technology                        |  |  |
| Piano Lab<br>Sculpture I                                     | Spanish I<br>Spanish II                                       | Intro to Psychology<br>Lighting & Sound Design                     | Fish and Wildlife Management I<br>Food Science and Safety                   | Advertising, Art, and Design<br>Auto Collision and Repair             |  |  |
| Sculpture II The Visual Experience Voice Lab                 | Spanish III Honors Spanish IV Honors Spanish V                | Marketing Mass Media Photo Journalism                              | Graphics with Python Honors Drawing & Painting III Honors Tech Edu Capstone | Automation, Robotics, and Electronics Automotive Technology Carpentry |  |  |
| World of Theatre   | Supervised Agricultural Experience Sustainability Engineering | Robotics Science of Animal Agriculture                             | INCubatoredu Intro Psychology   | Computer Programming Cosmetology                                      |  |  |
| <u>CPACTC Shops</u><br>Advertising, Art, and Design          | CPACTC Shops  | Sustainability Engineering<br>Video Game Design I                  | Intro to Agribusiness<br>Intro to Drafting                                  | Criminal Justice<br>Culinary Arts                                     |  |  |
| Horticulture and Landscaping                                 | Computer Networking Computer Programming Cosmetology          | Video Game Design II<br>Web Page Design                            | Intro to Film JAVA Business 101   | Dental Assistant Diesel Technology Early Childhood Education          |  |  |
|  | Criminal Justice Early Childhood Education                    | CPACTC Shops Advanced Manufacturing Technology                     | Leadership Development Living on Your Own                                   | Electrical Construction and Maintenance Horticulture and Landscaping  |  |  |
|  | Nursing   | Advertising, Art, and Design Automation, Robotics, and Electronics | Mathematical Modeling - Cogito<br>Music Technology Lab I                    | HVAC/R<br>Logistics and Warehouse Management                          |  |  |
|  |   | Computer Networking Computer Programming                           | Music Technology Lab II   | Masonry<br>Nursing  |  |  |
|  | 1   | Logistics and Warehouse Management                                 | L   | Welding   |  |  |

|  | Students must earn these competency areas in grades 11-12   |   |   |   |  |  |  |
|--|---|---|---|---|--|--|--|
| Global Studies   | Numerical Analysis  | Lab Science   | Literature  | Research Writing  | Wellness   |  |  |
| World Studies Honors World Studies AP World History French III Geography Hispanic Pop Culture Military History Honors Military History Music History Spanish III Honors Spanish IV | Accounting I Accounting II Accounting II Algebra II Honors Algebra II AP Calculus AB AP Calculus BC AP Physics C: Mechanics Geometry Honors Trigonometry JAVA Mathematical Modeling - Cogito Physics I Honors Physics II Pre-Calculus Honors Pre-Calculus Statistics AP Statistics AP Statistics APACTC Shops Advanced Manufacturing Technology | Anatomy and Physiology Animal Science AP Biology Biotechnology College Prep Chemistry AP Chemistry Earth and Space Science Electronics Environmental Science AP Environmental Science Food Science and Safety Honors Tech Edu Capstone Intro to Forensics Marine and Ocean Studies Microbiology Physics I Honors Physics II AP Physics C: Mechanics Plant & Greenhouse Science Robotics Veterinary Science  CPACTC Shops. Advanced Manufacturing Technology Auto Collision and Repair Automation, Robotics, and Electronics Automation, Electrical Construction and Maintenance Horticulture and Landscape HVAC/R Masonry Nursing Welding | AP English Language AP English Literature College Prep Literature Real World Literature Honors French IV Honors Spanish V | AP English Language AP English Literature College Prep Writing English - Opus Real World Research Advanced FFA Leadership The Visual Experience Medical Terminology | Babysitting/Aquatic Games Elem Water Safety Healthy Relationships/PE Life Guarding Mental Health/PE Personal Fitness & Nutrition Weight Training |  |  |