

**Juniata Valley  
Jr./Sr.  
High School  
Course Description  
Booklet**

**2020-2021**

**Mission Statement:**

**The Juniata Valley School District prepares students  
for life!**

# GRADUATION REQUIREMENTS

Graduation from Juniata Valley High School will be based on the achievement in the four years represented by grades nine, ten, eleven, and twelve. Graduation requirements follow the state mandated requirements including a graduation project and additional requirements established by the Juniata Valley School District.

1. 4.0 credits of **English**
2. 3.0 credits of **Social Studies** to include the following:
  - a. 9<sup>th</sup> Grade Early U.S History (1.0 credit)
  - b. 10<sup>th</sup> Grade Civics and Government (1.0 Credit)
  - c. 11<sup>th</sup> Grade American History (1.0 credit)
  - d. World Cultures elective only – any grade (1.0 credit)
3. 4.0 Credits of **Mathematics** to include Algebra I and Geometry or Algebra II, Math for the Trades, Math Concepts, Intermediate Algebra, College Algebra, Pre-Calculus/ or Calculus
  - a. Students who complete programs at the HCCTC will earn 1.0 Mathematics credit.
4. 2.0 credits of **Fine Arts and Humanities**
  - a. Students who complete programs at the HCCTC will earn 1.0 Fine Arts and Humanities credit.
5. 4.0 credits of **Science** to include Biology (1.0 credits) and Ecology (1.0 credits)
  - a. Students who complete programs at the HCCTC will earn 2.0 elective credits in science.
6. 1.25 of **Physical Education**
  - a. Grade 9 – (.5 credits)
  - b. Grade 10 - (.25 credits)
  - c. Grade 11 or 12 – (.5 credits)
7. 1.25 credits of **Health/Driver Education**
  - a. Senior High Health 1– (.5 credits)
  - b. Driver Education - (.25 credits)
  - b. Senior High Health 2 – (.5 credits)

8. 0.5 credits **Career Readiness and STEM Careers Investigation**

9. 2.0 credits of **Business, Technology, and Computer Software** to include

- a. 9th Computer Science Discoveries (1.0 credits)
- b. 12<sup>th</sup> Personal Finance / Economics (1.0 credit)

10. 4.0 credits of Electives (Once a requirement has been met in a discipline, elective credits will be issued for additional courses.)

- a. Students who complete programs at the HCCTC will earn 3.0 elective credits.

**Total: 26.00**

***\*Any three or four credit college course would count as one high school course in the appropriate area above.***

The minimum number of credits needed for promotion to tenth grade is six (6), to eleventh grade is twelve (12), and to twelfth grade is eighteen (18). A subject must be fully completed to earn credit. Partial credit will not be given. Six credits must be taken during the senior year.

In addition to courses offered at Juniata Valley High School, students may enroll in courses at the Huntingdon County Career and Technology Center, or other online providers such as Lincoln Interactive (fee required). Credits earned in all settings in grades 9-12 will be applied toward graduation. Students completing studies under an Individual Education Plan (IEP) and/or Gifted Individual Education Plan (GIEP) must achieve the goals of the IEP and/or GIEP to graduate, including those of the required transition plan.

# **RECOMMENDED COURSES FOR POSTSECONDARY PLANNING (Grades 9- 12)**

## **4-Year College Preparation**

*In order to consider attending a four-year baccalaureate program, the following courses are necessary, especially if no one particular college is a final selection at this point.*

Four years of English (preferably college prep or honors); four years of social studies; four years of science; four years of mathematics including Algebra I, Plane Geometry, Algebra II, and College Algebra w/ Trigonometry; one semester each of the following courses: computer, finance and economics; two to four years of a foreign language; two years of health; three years of physical education; plus, remaining electives.

## **2-Year College Preparation**

Four years of English; four years of social studies; four years of science; four years of mathematics (including algebra and geometry); one semester each of the following courses: computer, finance and economics; two years of health; two years of physical education; four years of career preparation courses in a particular area such as agricultural studies, business technology, or a HCCTC program.

## **1 to 2-Year Technical/Trade School Preparation**

Four years of English; four years of social studies; four years of science; four years of mathematics (including algebra and geometry); one semester each of the following courses: computer, finance and economics; two years of health; two years of physical education; three or four years of career preparation courses in a particular area such as HCCTC (Huntingdon County Career and Technology Center) program offerings or agricultural studies or business technology.

## **School-to-Work Programs**

Students who intend to go directly to work and who have had the opportunity to train (primarily at HCCTC or a family business) and to complete required certifications are still expected to enroll in: four years of English; four years of social studies; four years of science; four years of mathematics; two years of health, two years of physical education; and four years of a work-related program which must include one semester each of the following courses: computer, finance and economics.

# REQUIRED CLASSES

## Junior High

### GRADE 6

- ELA 6
  - **Reading and Writing Skills**
- Math 6
- Science 6
- Social Studies 6
- Rotation
  - **Art 6**
  - **General Music 6**
  - **Library 6/Google Suite-Docs, Sheets,Slide/STEM Rotation**
  - **Physical Education 6**

### GRADE 7

- Reading and Literature 7
- English and Writing 7
- Math
  - **Core Math 7**
  - **Accelerated Core Math 7**
  - **College Prep Core Math 7**
  - **Core Math 7 Lab (all levels)**
- General Science 7
- World Geography 7
- Rotation
  - **Computer Science Fundamentals: Express**
  - **Physical Education**
  - **Introduction to Library Science/Google Suite-Docs,Sheets,Slides/STEM Applications**
  - **Music**
- Electives: Chorus/Band

## **GRADE 8**

- Reading and Literature 8
- English and Writing 8
- Math
  - **Core Math 8**
  - **Core Math 8 Lab**
  - **Honors Algebra I**
- General Science 8
- World Studies 8
- Rotation
  - **Art 8**
  - **Introduction to Agriculture 8**
  - **Physical Education**
  - **Career Counseling and Social Skills**
- Electives: Art/Chorus/Band

# Senior High

## GRADE 9

- English 9 (Honors, College Prep or Applied)
- Math
  - **Algebra I**
  - **Honors Algebra II**
- Ecology
- Early U.S. History
- Health I and Physical Education
- Computer Science Discoveries
- Electives – 2.0 credits

## GRADE 10

- English 10 (Honors, College Prep or Applied)
- Math
  - **Algebra I**
  - **Algebra II CP**
  - **Honors Geometry 10**
  - **Plane Geometry (CP)**
- Biology
- Civics and Government
- Driver Education and Physical Education (Begins with the Class of 2023)
- Career Readiness and STEM Career Investigation
- Electives – 3.0 credits

## **GRADE 11**

- English 11 (Honors, College Prep or Applied)
- Math
  - **Algebra I**
  - **Algebra II**
  - **Plane Geometry**
  - **College Algebra & Trigonometry**
  - **Intermediate Algebra**
  - **Math for the Trades**
  - **Math Concepts**
- Science
  - **Chemistry**
  - **Animal Science/Natural Resources**
  - **Environmental Science**
- American History
- Health II and Physical Education
- Electives – 3.0 credits

## **GRADE 12**

- English 12 (Dual Enrollment, Honors, College Prep or Applied)
- Personal Finance/Economics (**1.0 cr**)
- Math
  - **Math for the Trades**
  - **Plane Geometry**
  - **Algebra II**
  - **College Algebra & Trigonometry**
  - **Intermediate Algebra**
  - **Pre-Calculus / Calculus**
  - **Math for the Trades**
  - **Math Concepts**
- Science
  - **Environmental Science**
  - **Natural Resources/Animal Science**
  - **Physics (Prerequisite Algebra I)**
  - **Organic Chemistry (Prerequisite Chemistry)**
- Electives – 3.0 credits

26 total credits needed for graduation in grades 9 through 12



## **CAREER EDUCATION**

### **900 Career Readiness and STEM Investigation Grade 10:**

This semester course will prepare students for further investigation into Post-Secondary opportunities and Career Readiness. This course consists of nine weeks of Career activities/lessons as well as preparation for PSAT and ASVAB testing and Registration on the College Board website for future Post-Secondary assessments such as the PSAT/SAT/AP exams. The course will also consist of nine weeks of STEM connectedness in the STEM lab. There will be STEM activities as well as investigation into STEM careers related to the 16 Career Clusters and 5 Career Pathways.

### **901 Career Guidance and Social Skills Grade 8:**

This nine week rotation course will focus on career and self-identity exploration through the use of personality assessments and career-cruising software that is available to all students at JVHS. Career and work readiness standards are also introduced and discussed through professional presentations by local businesses in the community. This course will help students select the career pathway in which they want to pursue and develop the tools necessary to obtain a future in this field through course selection, job research, and career exploration.

# LANGUAGE ARTS

## ENGLISH

### **060 ELA 6:**

This course presents a practical approach to reading, writing and grammar. Students will complete several writing activities to prepare them for both the PSSA test as well as future junior high writing assignments. Grammar instruction will complement the writing with separate grammar lessons and exercises. This course will also focus on building reading skills through reading a variety of literature in small group and independent reading. Reading skills and comprehension are monitored and assessed through Accelerated Reader and Benchmark assessments. Writing, grammar and reading skills are practiced and evaluated through Study Island lessons, practice and assessments.

### **100 English and Writing 7:**

This course will complement the 7<sup>th</sup> grade Reading and Literature course. Students will do various types of writing activities to prepare them for both the PSSA test, as well as future high school writing assignments. Students will explore narrative, persuasive, and informative writing, as well as poetry and free writing. Grammar instruction will go hand in hand with the writing. Additionally, students will be doing separate grammar lessons and exercises, particularly with more difficult concepts. Students will also keep a journal and write in it on a regular basis. The journal will be a collection of various assignments and prompts assigned by the teacher. **(1.0 cr)**

### **101 Reading and Literature 7:**

This course will complement the 7<sup>th</sup> grade English and writing course. Students will read and analyze a variety of texts ranging from novels and short stories to plays and poetry. Not only will students work on improving reading skills and comprehension, but there will also be a focus on analyzing the different elements of literature and non-fiction readings. Corresponding vocabulary lessons will be taught with the readings, and there will be an emphasis on critical thinking written responses based on a variety of literary genres. Study Island will also be used to help students enhance reading skills and to prepare them for the PSSA. **(1.0 cr)**

### **102 Reading and Literature 7AC:**

This course will complement the 7<sup>th</sup> grade English and writing course. At an accelerated pace, students will read and analyze a variety of texts ranging from novels and short stories to plays and poetry. Not only will students work on improving reading skills and comprehension, but there will also be a focus on analyzing the different elements of literature and non-fiction readings. Corresponding vocabulary lessons will be taught with the readings, and there will be an emphasis on critical thinking written responses based on a variety of literary genres. Study Island will also be used to help students enhance reading skills and to prepare them for the PSSA. **(1.0 cr)**

### **103 Reading and Literature 8:**

This course will go hand in hand with the English and Writing 8 course, just as it did last year for 7<sup>th</sup> grade. Students will read numerous novels, short stories and poems as well as have in-depth unit focusing on the Holocaust using primary source materials. The textbook for this class is the Glencoe literature book. Students will have weekly-bi-weekly vocabulary units that will require students to study and learn words from the texts being read in a given unit. Journaling, reflecting and shorter essays will also be done throughout the year. **(1.0 cr)**

### **106 English and Writing 8:**

This course is comprised of a comprehensive study of grammar and thorough instruction on developing strong writing skills through the recursive writing process model. Grammar study emphasizes that students show a command of Standard English conventions when writing and speaking. Grammar lessons will be taught from Glencoe's Writer's Choice Grammar and Composition textbook. In addition, students will practice grammar skills by learning how to edit and revise through Daily Language Review activities. Writing is done through a workshop approach and focuses on the following types: expository; persuasive; descriptive; narrative; personal and research. Writing is graded with the PSSA writing objectives which include content, organization, sentence fluency, voice, and conventions. Students also use writing to respond to and analyze various texts, as well as to express themselves through poetry, free writing assignments, and weekly journal responses to teacher-created prompts. **(1.0 cr)**

### **112AC English 9 – Honors:**

Honors English 9 is a rigorous, demanding course designed for highly motivated students planning to attend college. While its foundation is the core College Prep English 9 curriculum, the Honors section moves at an accelerated pace, incorporates additional and more challenging texts, involves an intensive vocabulary study, and includes extensive writing. Emphasis will be placed on literary analysis through an academic, in-depth study of various literary genres. Independent, critical, and creative thinking will be essential as we work through essays, novels, poetry, plays, and short stories. It is expected that students have mastered essential writing skills. Honors English 9 students should be genuinely interested in enhancing their writing abilities through constant practice and must be prepared to handle a demanding reading schedule. This is a weighted course. Prerequisite: Student must have recommendation of English department. **(1.0 cr)**

### **112CP English 9 – College Prep:**

The ninth-grade English curriculum emphasizes development of the core language arts components of reading, writing, speaking, listening, and research. Class activities are designed to help students master the skills needed to meet state standards as well as to be successful in their future endeavors, including post-secondary studies. College Prep English 9 examines multiple literary genres, including fiction, nonfiction, drama, and poetry. We will critically examine the ways in which various authors have chosen to represent the primary components of literature in these pieces, including: character, setting, plot structure, narrative point of view, language, theme, etc. We will also analyze the way writers communicate voice through social, cultural, geographical, and historical context. English 9 utilizes the Course 4 Glencoe textbook and a wide variety of novels centering around the theme Coming of Age. We will work to enhance critical reading skills, improve analytical thinking, build vocabulary, and strengthen writing skills. **(1.0 cr)**

### **112 English 9:**

English 9 utilizes a practical approach to reading and writing. This course includes the core literary components of the College Prep curriculum such as fiction, nonfiction, drama, and poetry, but is specifically designed around in-class reading, discussion, and analysis of literature. English 9 emphasizes mastery of basic writing skills, including spelling, grammar, mechanics, punctuation, sentence structure, etc. A study of practical vocabulary words will assist students in enhancing their vocabulary. English 9 provides students with reading and writing competencies needed to be productive members of society and the workforce. **(1.0 cr)**

**114AC English 10 – Honors:**

Honors English 10 is an advanced course that focuses on preparing you for higher grade level and post-secondary collegiate work in reading, writing, and communication. All assignments and grading standards are designed to prepare you not just for 11th grade, but for all further schooling. This course is a fast paced, rigorous course requiring a lot of work both inside and outside the classroom. Students will be challenged. Assignments will be difficult and students will be held to a high standard. Students will spend the year reading, analyzing, reflecting and writing about various novels, poems, and short stories, both classical and modern. This course also includes an in-depth analysis of Shakespeare's *The Tragedy of Julius Caesar* as well as an extensive independent research paper and presentation. Key grammar concepts will be reviewed and specific grammar lessons will be given when deemed necessary. Vocabulary units/quizzes are done with each text we read and students receive weekly vocab words that they are quizzed on monthly. Writing assignments will include both longer, analysis essays and shorter weekly journals. At this level, you will be asked to go above and beyond the simple requirements and to truly think, analyze, and question. \*Note - 10th grade is the year that all sophomore students take the Literature Keystone exam, a graduation requirement.

**114 CP English 10 – College Prep:**

College Prep English 10 is an intermediate course that focuses on preparing you for higher grade level and post-secondary work in reading, writing, and communication. All assignments are designed to prepare you not just for 11<sup>th</sup> grade, but for all further schooling or post-secondary plans. This course is moderately paced. Students will spend more in-class time working on texts together while also having to work on assignments outside of class. Students will spend the year reading, analyzing, reflecting and writing about various novels, poems, and short stories, both classical and modern. This course also includes an in-depth analysis of Shakespeare's *The Tragedy of Julius Caesar* as well as an independent research paper and presentation. Key grammar concepts will be reviewed and specific grammar lessons will be given when deemed necessary. Vocabulary units/quizzes are done with each text we read and students receive weekly vocab words that they are quizzed on monthly. Writing assignments will include both longer, analysis essays and shorter weekly journals. You will be encouraged to truly think, analyze, and question. \*Note - 10th grade is the year that all sophomore students take the Literature Keystone exam, a graduation requirement.

**114 English 10:**

Applied English 10 is a course that focuses on preparing you for higher grade level and post-secondary work in reading, writing, and communication. This means that all the work we do is meant to help you regardless of what your plans are post-high school. The course follows a moderate pace and although we will work together a lot during class, you will be expected to complete some work outside of school. Students will spend the year reading, analyzing, reflecting and writing about various novels, poems, and short stories, both classical and modern. This course also includes an in-depth analysis of Shakespeare's *The Tragedy of Julius Caesar*. Key grammar concepts will be reviewed and specific grammar lessons will be given when deemed necessary. Vocabulary units/quizzes are done with each text we read and students receive weekly vocab words. You will be encouraged to truly think, analyze, and question. \*Note - 10th grade is the year that all sophomore students take the Literature Keystone exam, a graduation requirement.

**115AC English 11 – Honors:**

Honors English 11 is a rigorous and demanding American Literature survey designed for the most advanced and motivated college bound students. While its foundation is the core College Prep English 11 curriculum, the Honors section moves at an accelerated pace, incorporates additional and more challenging texts, involves an intensive vocabulary study, and includes extensive writing. Students taking this course must be prepared to read more than one piece of literature at a time and juggle more than one assignment at a time. Emphasis is placed on scholarly literary analysis through an academic, in-depth study of American literature. Honors English 11 students are expected to have advanced writing skills and must be genuinely interested in enhancing their writing abilities through constant practice. This fast fast-paced, highly challenging class for advanced students will require a significant amount of reading and writing outside of the classroom. This is a weighted course.

Prerequisite: Student must have recommendation of English department. **(1.0 cr)**

### **115CP English 11 – College Prep:**

College Prep English 11 is a course designed for students planning on post-secondary studies. It is an American Literature survey covering a wide assortment of American fiction, nonfiction, drama, and poetry from a variety of authors. Examining historical context and evaluating authors' literary techniques will be a key component of this course. Emphasis is placed on scholarly literary analysis through an academic, in-depth study of American literature. English 11 utilizes the Glencoe *American Literature* textbook and various additional texts to support our literary study. As a course emphasizing college preparedness, a proficiency in basic writing skills is expected. Our focus will be on crafting voice and style, presenting sophisticated and well-developed ideas, and supporting claims with clear explanations and solid evidence. A comprehensive vocabulary study will also be an important part of College Prep English 11. This challenging class for college bound students will require a moderate amount of reading and writing outside of the classroom. **(1.0 cr)**

### **115 English 11:**

English 11 is a course for the student who will most likely enter the workplace after graduation. As such, it utilizes a practical approach to reading and writing. This course is specifically designed around in-class reading, discussion, and analysis of literature. English 11 emphasizes mastery of basic writing skills, including spelling, grammar, mechanics, punctuation, sentence structure, etc. A study of practical vocabulary words will assist students in enhancing their vocabulary. English 11 provides students with reading and writing competencies needed to be productive members of society and the workforce. **(1.0 cr)**

### **123 College English 12:**

This course is based on a syllabus prepared in conjunction with Mount Aloysius College and can be taken for 3.0 college credits. The course is a challenging, college level class and will be treated as such. Students taking this course will have a summer reading list and are required to pass a test with a "C" average the first week of school based on the summer reading list and course work. This course contains higher level readings and analytical writings along with intensive research writing and novel reading of various genres. Course follows guidelines created by Mount Aloysius **(1.0 cr)**

### **118 AC English 12 – Honors:**

This course includes an intense study of British authors and their writings. The study is addressed through the readings beginning with the Old English Period and continuing through the Modern and Post-modern Periods. Readings include novels, short stories, essays, plays, letters, speeches, and poetry. Students' writing will be addressed through responses to literature and numerous supplemental writing assignments representing all styles. Emphasis will be placed on analysis of the material and identification of the authors' use of literary devices. This fast-paced course will also emphasize research using the APA format. This course will also address all material the college prep English 12 course will. This is a weighted course.

Prerequisite: Student must have recommendation of English department. (This is for the first year. Any subsequent years will be AC English 10 and 11.) **(1.0 cr)**

### **118 CP English 12 – College Prep:**

This course includes a study of British authors and their writings. The study is addressed with readings beginning with the Old English Period and continuing through the Modern and Post-modern Periods. Readings include novels, short stories, essays, plays, letters, speeches, and poetry. Students' writing will be addressed through responses to literature and numerous supplemental writing assignments touching on all styles. More emphasis will be placed on reacting to the readings through student writing in preparation for college writing. Review of literary devices based on prior knowledge. The MLA format for research will be introduced with the research paper requirement. The essay response will also be emphasized to prepare students for college freshman composition. **(1.0 cr)**

### **118 English 12:**

This English course is for the student not furthering his/her education upon graduation from high school. This includes an exposure to British authors and their writings. This exposure will concentrate on comprehension and analysis through written and oral responses. Students will also have a chance to read and do analysis upon relevant contemporary genres. Emphasis will be placed on grammar, usage, and mechanics with supplemental materials for practice. The various forms of written and electronic communication will be studied with emphasis placed on the skills needed in the work place. (Supported by presentations/discussions with local business leaders.) **(1.0 cr)**



### **116 British Novel-Classics you should know**

This course will cover several famous British novels and their authors. We will read and examine these novels and learn about themes, style, mood, motifs, character development and the relation of the novel to our contemporary world. We will also study the authors themselves and the history of the time period it was written. Some writing will be required. Students will also learn how to compare and evaluate the characteristics of each novel to the other novels in the course. Open to Juniors and Seniors only. Semester 1 **(.5 cr)**

### **117 The Contemporary Novel-Modern novels with similar themes**

This course will contain the reading material of several newer, more contemporary novels with critical thinking activities and analysis of a variety of modern day writers. Close examination of the genre, with interpretation of themes and the author's techniques will be included. Students will be able to use the text to support the author's intended purpose. Open to Juniors and Seniors only. Semester 2 **(.5 cr)**

### **COM 101 – Public Speaking**

This course is designed to help the student build confidence in the theory and practice of public speaking, with the emphasis on the speaker-audience relationship. Skills include analyzing the speaking situation, choosing appropriate topics, conducting research, organizing ideas, utilizing evidence, using voice and body to deliver public speeches effectively to a live audience, and developing the ability to listen actively and critically. Eligible for college credit through Penn Highlands Community College. **(3.0 college credits)**  
**(1.0 cr)**

### **134 ESL (English/Second Language):**

This program features essential language components, authentic communication, and academic support services to enhance success in all areas of the curriculum for students whose second language is English. Grades 7-12. Approval of Student Personnel Services Coordinator.

**065 Grade 6 Library:** This 9-week course will provide a basic understanding of the information and materials of the school library, as well as the educational resources available for students on the internet. Students will learn how to locate, access, evaluate, and utilize information. Students will study reference materials, fiction, non-fiction, and biography. Students will also participate in book check-out and reading days. Students will be introduced to and practice the application of the Google Suite-Docs, Sheets and Slides as well as an introduction to STEM concepts and the STEM lab.

### **127 Library Media:**

The seventh-grade library media class teaches students information and technology skills and assists them in developing information literacy, a skill necessary to meet the common core standards of Pennsylvania as well as to ensure that students will be successful in "College, careers, and life." As a digital citizen of the 21<sup>st</sup> century, students need to be knowledgeable of how to access the plethora of digital resources available on the internet through websites and databases. The course runs on a 9-week schedule with seventh-grade students attending on a rotational basis. Each student will be taught the basics of research as outlined in Mike Isenberg and Bob Berkowitz's "Big 6" model, which, according to their website, includes the following: *The Big 6 integrates information search and use skills along with technology tools in a systematic process to find, use, apply, and evaluate information for specific needs and tasks.* Being able to independently access, evaluate, and use information and resources is an ability that promotes personal satisfaction and supports the overall curriculum. The course features a study of the high school library and its resources, a digital citizenship unit with lessons and activities from the Common Sense Media website, and a research paper. Students will continue the practice of applying the use of the Google Suite-Docs, Sheets and Slides as well as an application of STEM concepts and the STEM lab.

### **128 Media Production:**

The media production course will introduce students to a variety of media skills. Students will learn graphic design basics and video-editing skills through work with a variety of print and video mediums. In addition, students will produce the senior video, as well as other videos for the school. Finally, the students will learn to research, write, plan, and present media campaigns using traditional and emerging methods. Grades 10-12. **(1.0 cr) Inactive:**

### **165 Journalism:**

This course is designed for students in grades 9-12 who have an interest in gaining more experience with journalism. This includes article writing, article research, interview skills, basic photography, and editing. Students enrolled in this course will be expected to complete weekly assignments related to journalism, such as writing mini-articles and reporting on issues both in and outside of school. Students will also be given the opportunity to write articles for the *Daily News*. As a class, we will decide if we can bring back a school newspaper or school flier that could be made available to students and faculty on a monthly or weekly basis. **(1.0 cr)**

**150 SAT Prep:**

This one semester course is designed to help prepare students for the SAT test. Instruction, followed by extensive, collaborative, guided, and independent practice, provides the foundation for the course. Students will become familiarized with the test format, learn test taking and problem solving strategies, and gain confidence by taking ten practice tests. Upon completion, students will be more prepared to succeed and possess the tools necessary to complete the SAT to the best of their abilities. **(0.5 cr)**

**142 Spanish I:**

This course is an introduction to the language and culture, including listening, speaking, reading, and writing. Students will be using vocabulary, understanding grammar concepts, and exploring culture. The students will learn these topics by using the following actions: viewing visual vocabulary, listening to pronunciation, conversing in dialogs, performing hands-on projects, viewing cultural videos, applying previous knowledge with review games, reading stories, writing sentence structure, and using technology for understanding of the language.

Students are required to use upper level thinking skills and problem solving skills continually to figure out ways to express their ideas and figure out what is being said. Also, students are required to synthesize new concepts and ideas with prior learning and expand what they are able to express and understand. Students are expected to be prolific in speaking, writing and listening in all three modes of communication; interpersonal, interpretive and representational.

Grades 9-11.

Prerequisite: Final grade of C or higher in previous year's English class.

**(1.0 cr)**

### **144 Spanish II:**

The skills learned in the first year will be strengthened and further developed by studying more grammatical structures, enlarging vocabulary, and increasing communication in the language. Students will be using vocabulary, understanding complex grammar concepts, and exploring culture. The students will learn these topics by using the following actions: viewing visual vocabulary, listening to pronunciation, conversing in dialogs, performing hands-on projects, viewing cultural videos, applying previous knowledge with review games, reading stories, writing complex sentence structure, and using technology for understanding of the language, and using an interactive online plot software tool.

Students are required to use upper level thinking skills and problem solving skills continually to figure out ways to express their ideas and figure out what is being said. Also, students are required to synthesize new concepts and ideas with prior learning and expand what they are able to express and understand. Students are expected to be prolific in speaking, writing and listening in all three modes of communication; interpersonal, interpretive and representational.

Grades 10-12.

Prerequisite: Final grade of C or higher grade in Spanish I. **(1.0 cr)**

### **146 Spanish III / 148 Spanish IV:**

Students gain language competency as they progress through intermediate and advanced grammar skills and vocabulary and communicate in Spanish. Students will be using vocabulary, understanding and constructing complex grammar concepts, exploring culture, and using the language verbally in the classroom. The students will learn these topics by using the following actions: viewing visual vocabulary, listening to pronunciation, conversing in dialogs, performing hands-on projects, viewing cultural videos, applying previous knowledge with review games, reading stories and literature pieces, writing and constructing complex sentence structure, and using technology for understanding of the language, and using an interactive video plot online software tool.

Students are required to use upper level thinking skills and problem solving skills continually to figure out ways to express their ideas and figure out what is being said. Also, students are required to synthesize new concepts and ideas with prior learning and expand what they are able to express and understand. Students are expected to be prolific in speaking, writing and listening in all three modes of communication; interpersonal, interpretive and representational.

Grades 11-12.

Prerequisite: Final grade of C or higher grade in Spanish II/III. **(1.0 cr)**

# SOCIAL STUDIES

## **062 Grade 6 Social Studies:**

This course is designed to deepen students understanding of the Earth and its peoples through the study of history, geography, politics, culture, and economic systems. The recommended context for social studies learning in sixth grade is world history, Canadian History, and general world geography. Students begin their examination of the world by exploring the location, place, and spatial organization of the world's major regions.

## **200 World Geography 7:**

This course is designed to help you better understand our constantly changing and complex world through a study of geography. We will study geography from the physical, political, and cultural perspective through the five basic geographical themes of location, place, human-environment interaction, movement, and region. Special emphasis will be placed on geographical skills, and geographic literacy (locating countries, capitals, & physical features of the world). **(1.0 cr)**

## **202 World Studies 8:**

This course is intended to develop an appreciation for humankind's constant striving for a higher level of culture and a more democratic life. An emphasis is placed on: contributions that other peoples have made to society, America's place in the world, and an understanding of the effects of environment, climate, and resources in our world. **(1.0 cr)**

## **204 Early United States History 9:**

The Europeans, the settlement and the growth of the thirteen colonies and the western movement and settlement of the West will be covered in this course for students to gain a thorough knowledge of the early discovery of America. Students will also look at Pennsylvania's role in the development of the new nation. Major areas of study include, but are not limited to, the forging of a new nation, the establishment of the United States and the United States Constitution. This course will conclude with the events leading to and the outcome of the Civil War. **(1.0 cr)**

**206 AP World History:**

This college-level course examines world history over the past thousand years. Students develop a deeper understanding of the evolution of and interactions between cultures, regions and institutions. By concentrating on historical global events, students also explore the impact of changes within an international framework. Challenging and engaging assignments reinforce the content. This course meets the rigorous standards of the College Board and was designed to prepare students to sit for the AP World History Exam.

**(1.0 cr) When available.**

**206 World Cultures Elective:**

This course is an elective course and is designed to provide the student with specific knowledge of geographic, cultural, economic and social aspects of major foreign nations that are quite different from those of the United States. The students will learn about different major world religions and how they affect governments and people of the worlds. The students will learn about forms of governments and economic systems different from their own and explore how these differences affect relations among nations. **(1.0 cr)**

**214 American Military History:**

This course will delve into both a tragic and fascinating recurring theme in the human story: armed conflict. This course will include the study of military terms, principles, military propaganda, strategies, campaigns, as well as various theories concerning causes of war and peacemaking. Also, the course will examine the people and personalities who are associated with military history. The course will begin with an examination of the current War on Terrorism and then move *backwards* through history to the colonial wars in early America. **(1.0 cr)**

**208 American History:**

This course will give students an overview of the 20<sup>th</sup> century and emphasize the growth of the United States as a world power. The students will study the past in order to find their place in the present and to plan for their future. Major areas of study include, but are not limited to: Reconstruction, Industrialization and Urbanization, The Progressive Era, World War I, the Stock Market Crash, World War II, the Korean War, the 50s and 60s, the Vietnam War, and the changes in the American Society during the 70s, 80s, 90s, and into the 21<sup>st</sup> century.

Grade 11. **(1.0 cr)**

### **GOV 100 – Introduction to American Government AP**

This course introduces the student to the processes and institutions of the American national government system with special emphasis on constitutional issues, the President, Congress, the judicial system, the party system, and public opinion and the media in politics. **Eligible for college credit through Penn Highlands Community College. (3.0 college credits) (1.0 cr)**

### **CIV 100 – Western Civilization: Ancient through Renaissance (Civ I)**

Western Civilization I examines past cultures in order to compare their experiences and make us aware of the opportunities and limitations of modern cultures. Major political, social, economic, and culture trends and their influences on modern civilization are examined. As an introduction, this course begins in the Ancient Near East and proceeds through the Central Middle Ages. Western Civilization I (CIV 100) examines the period from the 17<sup>th</sup> century to the present. **Eligible for college credit through Penn Highlands Community College. (3.0 college credits) (.5 cr)**

### **CIV 110 – Western Civilization: Renaissance to Present (CIV II)**

This course examines the history and experiences of cultures from the Renaissance to the present. Major political, social, economic, cultural and religious trends and influences are examined, discussed and interpreted. Topic discussions include perspectives on the rise of European power, revolution (political, social, scientific, and economic), the arts, literature, philosophy, nationalism and global interdependence among nations. **Eligible for college credit through Penn Highlands Community College. (3.0 college credits) (.5 cr)**

### **208AC HIS 110 – US History II:**

Reconstruction to Present: This course focuses on the history of the United States from the Gilded Age, Western Expansion, the World Wars and the Great Depression, and the Cold War through to America's leadership role as the sole superpower today. Major events will be introduced and analyzed along with political, economic, social and cultural challenges that faced America. In addition, the roles of the Native Americans, African-Americans, immigrant cultures and women will be explored in sections of the course.

**Eligible for college credit through Penn Highlands Community College. (3.0 college credits) (1.0 cr)**

### **211 Government & Civics:**

This course is designed to develop an interest and essential understanding of government at the local, state, and national levels. It provides a basis for understanding democracy in comparison to other forms of government. This course will also give the students the foundation to become active participants in the governmental process. Grade 10. **(1.0 cr)**

**220 SOC 100 – Introduction to Sociology:**

This is an introductory course that will familiarize the student with the basic principles and theories associated with sociology. This course will prepare students to look critically at a variety of social issues. Critical thinking is emphasized as students are provided thought provoking opportunities in challenging them to examine their diverse world.

Eligible for college credit through **Penn Highlands Community College. (3.0 college credits) (1.0 cr)**

**221 Current Social Issues:**

Students will explore current issues within the American Society and the Global Community we interact. The students will complete the exploration through various media outlets and utilize a variety of technology tools to complete the exploration. Students will have the opportunity to voice their thoughts, questions and opinions on a day to day discussion within class. Students will track the current events through the formation and completion of a portfolio. **(1.0 cr)**

**213 Intro to Psychology:**

Topics include brain and the behavior, perception and sensation, learning, human development, experimentation and abnormal psychology. Additional focus on personality, intelligence, gender difference, dreams, therapy, and sociocultural influences. Classroom discussion is required. The goal of this course is for students to better understand human behavior. **(1.0 cr)**



# MATHEMATICS

## **061 Grade 6 Math:**

This course includes topics in all of the state-mandated 6th grade math reporting areas. Topics: The Number Systems: Apply and extend previous understandings of multiplication and division to divide fractions by fractions. Compute fluently with multi-digit numbers and find common factors and multiples. Apply and extend previous understandings of numbers to the system of rational numbers. Expressions and Equations: Apply and extend previous understandings of arithmetic to algebraic expressions. Reason about and solve one-variable equations and inequalities. Represent and analyze quantitative relationships between dependent and independent variables. Ratios and Proportional Relationships: Understand ratio concepts and use ratio reasoning to solve problems. Statistics and Probability: Develop understanding of statistical variability. Summarize and describe distributions. Geometry: Solve real-world and mathematical problems involving area, surface area, and volume.

## **300 General Core Math 7:**

This course includes topics in all of the state-mandated 7th grade math reporting areas. Topics: *Ratios and Proportional Relationships* (unit rates with fractions, representing proportional relationships with tables, graphs, and equations, multi-step problems using ratios and proportions, percents), *Rational Numbers* (operations with positive and negative rational numbers, word problems involving rational numbers), *Expressions and Equations* (algebraic expressions and equations, using equations to model word problems), *Geometry* (area and volume, similar figures, scale drawings, triangle properties, angle properties), *Statistics and Probability* (random samples, data comparison using measures of center, box plots, probability) Permission of Grade 6 math teacher. **(1.0 cr)**

### **302 Core Math 7 College Prep.:**

This course includes topics in all of the state-mandated 7th grade math reporting areas. Topics: *Ratios and Proportional Relationships* (unit rates with fractions, representing proportional relationships with tables, graphs, and equations, multi-step problems using ratios and proportions, percents), *Rational Numbers* (operations with positive and negative rational numbers, word problems involving rational numbers), *Expressions and Equations* (algebraic expressions and equations, using equations to model word problems, inequalities), *Geometry*(area and volume, similar figures, scale drawings, triangle properties, angle properties, parallel lines with a transversal), *Statistics and Probability* (random samples, data comparison using measures of center, box plots, MAD, probability)

Permission of Grade 6 math teacher. **(1.0 cr)**

### **304 Accelerated Core Math 7:**

This course includes topics in all of the state-mandated 7th grade math reporting areas. In addition, selected 8th grade math topics will be covered. Topics: *Ratios and Proportional Relationships* (unit rates with fractions, representing proportional relationships with tables, graphs, and equations, multi-step problems using ratios and proportions, percents), *Rational Numbers* (operations with positive and negative rational numbers, word problems involving rational numbers, square and cube roots, exponents and scientific notation), *Expressions and Equations* (algebraic expressions and equations, using equations to model word problems, inequalities), *Geometry*(area and volume, similar figures, scale drawings, triangle properties, angle properties, parallel lines with a transversal, Pythagorean theorem, transformations), *Statistics and Probability* (random samples, data comparison using measures of center, box plots, MAD, probability)

Permission of Grade 6 math teacher. **(1.0 cr)**

### **Core Math Lab 7:**

This course will reinforce the 7th grade math concepts covered in the core math course. We will use various techniques and strategies to better master core math skills. Activities may include math fluency drills, individual and/or group practice activities, cumulative review, online practice, problem solving applications, and extensions. Small groups will be used to differentiate instruction, allowing for remediation and/or acceleration, based on the needs of the group.

### **305 Core Math 8:**

This course is intended to introduce concepts of algebra, such as working with variables, evaluating expressions, solving equations and inequalities, and graphing. Concepts of real numbers, integers, rational numbers, exponents, measurement, basic geometry, transformations, and data analysis are included.

### **Core Math Lab 8:**

This course will reinforce the 8th grade math concepts covered in the core math course. We will use various techniques and strategies to better master core math skills. Activities may include math fluency drills, individual and/or group practice activities, cumulative review, online practice, and problem solving applications and extensions. Small groups will be used to differentiate instruction, allowing for remediation and/or acceleration, based on the needs of the group. **(1.0 cr)**

### **318H AC Algebra I 8 (AC):**

This accelerated course includes a study of number relations, linear and quadratic equations, formulas, operations with polynomials, special products and factoring, inequalities, and algebraic fractions. Verbal problems for the application of most of the above areas are used throughout the course.

Prerequisite: Grade of C or higher in Pre-algebra (AC) and permission of instructor. **(1.0 cr)**

### **318 Algebra I:**

This course includes a study of number relations, algebraic equations and inequalities, graphing functions, linear equations, systems of equations and inequalities, exponents and exponential functions, and an introduction to operations with polynomials and factoring. Word problems are used to illustrate applications of the above concepts throughout the course. Grades 9-12. Permission of instructor. **(1.0 cr)**

### **319H Algebra II (Honors):**

This accelerated course develops advanced Algebra skills such as Algebra 2 foundations, function families, quadratic functions and complex numbers, polynomials expressions and equations, exponential and logarithmic functions, and rational and radical functions. It also introduces matrices and their properties. Word problems for the application of most of the above areas are used throughout the course. Grade 9. This class is weighted.

Prerequisite: Student must obtain a *Proficient* score on the PSSA and Keystone exams in order to take this course **(1.0 cr)**

### **319 Algebra II:**

This course includes a study of number relations, algebraic expressions, equations and inequalities, polynomials, rational expressions, irrational and complex numbers, radical expressions and equations, and rational expressions and equations. It also introduces matrices and their properties. Word problems for the application of most of the above areas are used throughout the course. Grades 9-12.

Prerequisite: Algebra I plus permission of instructor. **(1.0 cr)**

### **330 Plane Geometry:**

This course is intended to develop the student's logic and reasoning skills, through the use of both proof and application problems. Course content includes geometric figures, congruence, lines and planes in space, polygons, similarity, the circle, Pythagorean theorem, perimeter, area, volume, surface area, and two and three dimensional shape properties. This course moves at a steady pace and places less emphasis on the 2-column proof. Grades 10-12.

Prerequisite: Algebra I and Algebra II plus permission of instructor.

**(1.0 cr)**

### **330H Plane Geometry (Honors):**

This accelerated course is intended to develop the student's logic and reasoning skills, through the use of both proof and application problems. Course content includes geometric figures, congruence, lines and planes in space, polygons, similarity, the circle, Pythagorean theorem, perimeter, area, volume, surface area, and two and three dimensional shape properties. This course moves at a more rigorous pace and is an excellent course to prepare for any type of computer programming or math-related college major. Grades 9-10. This class is weighted.

Prerequisite: Algebra I AC and Algebra II AC plus permission of instructor. **(1.0 cr)**

### **331 College Algebra/Trigonometry:**

This course includes ½ year of advanced algebra and ½ year of trigonometry which will prepare the student for college mathematics. Topics to be covered will include equations and graphing, linear systems, functions and inverse functions and properties, the complex number system and roots, conic sections and properties, right triangle trigonometry, trigonometric functions, trig identities and graphs, the Law of Sines and Cosines as well as radian measure and polar coordinates. This course will be conducted at a more rigorous pace and will provide the students with the foundations for college mathematics. This course is weighted. Grades 11-12. **(1.0 cr)**

Prerequisite: Algebra II, Plane Geometry, and recommendation of instructor(s). Eligible for college credit through Penn Highlands Community College. **(3.00 college cr)**

### **332 Intermediate Algebra:**

This course is designed to prepare students for higher level mathematics through a mastery of algebraic concepts. Topics include factoring, laws of exponents, polynomials, equations and inequalities (including linear, quadratic, and absolute value), graphing (using linear equations and inequalities), systems of equations and inequalities, functions, rational expressions and radicals. Eligible for college credit through Penn Highlands Community College. **(3.00 college cr)**

### **333 Pre-Calculus:**

This course is designed for the student who needs to strengthen the algebraic and geometric skills necessary for calculus. The student will use trigonometric functions, curve plotting, determinants, relations, graphs, logarithms, exponential functions, inequalities, ratios, sequences and series, and limits. Semester. Grades 11-12. This course is weighted.

Prerequisite: Trigonometry and permission of instructor. Eligible for college credit through Penn Highlands Community College. **(3.00 cr)**

### **334 Calculus:**

This course covers the derivatives of algebraic and basic trigonometric functions, anti-derivatives, integral functions of one variable and their applications, limits and continuity. Semester. Grades 11-12. This course is weighted.

Prerequisite: Pre-calculus and permission of the instructor. Eligible for college credit through Penn Highlands Community College. **(4.00 cr)**

### **335 Mathematics for the Trades:**

This course equips students with a solid foundation in the math needed for a variety of technical and vocational trades, such as allied health, electrical trades, plumbing, construction, and many more. The math concepts are presented completely within the context of practical on-the-job applications, so students can make an impact on the job from day one. **(1.0 cr)**

**306 Math Concepts:** This course is intended to reinforce the concepts of algebra, working with variables, evaluating expressions, solving equations and inequalities, and graphing. Concepts of integers, order of operations, rational numbers, decimals, measurement, ratio, proportion, percent, and basic geometry are included. **(1.0 cr)**

# FINE ARTS AND HUMANITIES

## ART

### **064 Art 6:**

This class offers a broad range of visual art experiences based on art works and styles of various cultures and times in history. The lessons present art concepts and styles and help increase cognitive learning. The studio lessons provide manipulative experiences that build on the narrative lesson and give students the opportunity to use various media and techniques. Quarter.

### **701 Art 8:**

This course will further expand students' knowledge and exploration of art mediums including sculpture, clay and drawing and may vary each marking period. In this class students will also study art history, specific artists, styles and periods. This course meets daily for one marking period. Quarter. **(.25 cr)**

### **702 Art 9:**

Art 9 is a drawing class. The students will learn various traditional and experimental techniques such as graphing, contour drawing, shading techniques using tortillons line drawing, perspective, and the basics of realistic drawing. Portrait, figure drawing, still life, and landscape subject matters are covered. The students will work with a variety of materials, degrees of pencil, graphite, charcoal, kneaded erasers, pastels, and the colored pencils.

Prerequisite: B or higher in Art 8. Semester. **(1.0 cr)**

### **704 Art 10:**

The Art 10 program is designed to challenge the students' talents and to develop techniques in many different types of media using the principles and elements of design. Among these will be continuing pastel work, painting using acrylic paint on canvas, sculpture using various mediums, and pen and ink techniques. Students will also study master artists on their techniques through the use of videos, art appreciation and art history through the use of prints and videos.

Prerequisite: B or higher in Art 9. **(1.0 cr)**

**705 Art 11:**

Art 11 is intended for the talented, highly motivated third year art student. Art vocabulary introduced in Art 9 and 10 is reviewed and expanded. The students are encouraged to employ their expanding knowledge to reproduce art that is more interesting, complex, and original. Projects considered appropriate for students in Elective Art 11 are: drawing using pencil, pen and ink, charcoal, colored pencil, and chalk pastel; and painting using acrylic paints, watercolor, tempera, and mixed media. Two-dimensional activities would include, exploring graphic design, mosaic on wood, still life observational drawing and painting, and exploring abstract art through pastel.

Prerequisite: B or higher in Art 10. **(1.0 cr)**

**706 Art 12:**

Art 12 is an advanced art course intended for the talented, highly motivated fourth year student. At this level, the student demonstrates expertise in various media by successfully and independently manipulating a wide variety of tools and materials. Possibilities for creative expression at this level are endless. Lessons and activities are designed to compliment the student's mature abilities with styles and imagination. Projects considered appropriate for advanced Art 12 include the following: drawing using charcoal, pencil, colored pencil, pastel pencils, pen and ink, and chalk pastel; and painting using acrylic, tempera, mural painting, as well as wet and dry watercolor painting. Two-dimensional activities include mosaic (glass tile) on wood and batik on fabric. 3-dimensional activities include sculpture in clay and polymer, as well as carving blocks of wood or styrofoam.

Prerequisite: B or higher in Art 11 **(1.0 cr)**

**707 General Art:**

This art course includes the descriptions for Art 704, 705, and 706. It is designed for students who cannot schedule elective art with their regular class. Semester or year. Grades 10-12. Permission of instructor required. **(1.0 cr)**

**708 Independent Art:**

This art course includes the descriptions for Art 704, 705, and 706. It is designed for students who cannot schedule elective art with their regular class. Semester or year. Grades 10-12. Permission of instructor required. **(1.0 cr) Student will work independently.**

### **709 AP Studio Art:**

Students work with diverse media, styles, subjects, and content. Each of the three portfolios consists of three sections:

- 1- *The Range of Approaches* (Breadth) section illustrates a range of ideas and approaches of art making.
- 2- *The Sustained Investigation* (Concentration) section shows sustained, deep, and multiperspective investigation of a student-selected topic.
- 3- *The Selected Works* (Quality) section represents the student's most successful works with respect to form and content.

Students' work is informed and guided by observation, research, experimentation, discussion, critical analysis, and reflection relating individual practices to the art world. Students are asked to document their artistic ideas and practices to demonstrate conceptual and technical development over time. **(1.0 cr)**

## **MUSIC**

### **066 Music 6:**

Sixth grade general music serves to provide students with a foundational understanding of musical concepts like meter, rhythm, pitch, tonality, form, and texture. Students will explore different genres of music from various cultures and consider the way in which musical elements connote meaning. During the nine-week course, students will also learn to perform, improvise, and compose on a variety of instruments.

### **740 Junior High Band:**

In Junior High Band, students will grow as independent musicians by strengthening note reading and rhythm reading skills and developing an understanding of other musical concepts like style, tempo, dynamics, expression, and others. Students will improve their technique on their instrument through group warm-ups, exercises, rehearsals, small group lessons, and individual practice. Full band rehearsals and small group lessons are equally important components of this course. Students will perform in at least two concerts each year.

Prerequisite: Permission of instructor. **(0.5 cr)**



**744 Senior High Band:**

The Senior High Band promotes musical learning through performance. Students will learn about advanced musical concepts, like meter, tonality, style, tempo, and historical context of repertoire. Through warm-ups, scales, exercises, and appropriately challenging repertoire, students will continue to develop their technical skills on their instrument. Full band rehearsals, small group lessons, and individual practice time are equally important components of this course. By the conclusion of the course, students will be prepared to embark on a lifetime of fulfilling music-making. The Senior High Band gives three to four concerts every year. Grades 9-12.

Prerequisite: Permission of instructor. **(0.5 cr)**

**748 General Music 7:**

Seventh grade general music serves to provide students with a foundational understanding of musical concepts like meter, rhythm, pitch, tonality, form, and texture. Students will study different genres of music from various cultures and consider the way in which musical elements connote meaning. During the nine-week course, students will also learn to perform, improvise, and compose on a variety of instruments. **(.20 cr)**

**752 Junior High Chorus:**

During this class, basic choral literature will be taught. Students will learn music in 2-3 vocal parts (harmony) and continue to emphasize the basic elements of music. Various styles of music will be taught. Students will be involved in two public concerts. Grades 7-8. **(0.5 cr)**

**756 Senior High Chorus:**

An extensive overview of various types of vocal music in four to eight parts. Students will be involved in two public concerts and will be prepared for possible participation in County, District, Regional, All State, and All Eastern Chorus programs. Grades 9-12. **(0.5 cr)**

**747 Music Theory:**

Students will develop the ability to recognize, understand, and describe the basic processes and structures of western music. Students will gain an aural and visual understanding of pitches, intervals, scales and keys, chords, meter, and rhythm. Classes will include dictation and composition exercises, part writing and figured bass realization, and harmonic and rhythmic analysis. Grades 9-12. **(1.0 cr)**

# SCIENCE/ECOLOGY/AG TECHNOLOGY

## SCIENCE

### **062 Science 6:**

This course is an introduction to physical science, earth science, life science and general chemistry. The physical science portion will include kinetic and potential energy and energy transfer. The earth science portion will include soil, rock formation, plate tectonics, and fossils. The life science portion will include ecosystems and human impact on the environment. The chemistry portion will continue with basic atoms, elements, and compounds study.

### **402 General Science 7:**

Life Science is a study of the living world. It begins with the characteristics of living things and then develops a 5- kingdom classification system. Organisms are grouped into one of five kingdoms: monera, protista, fungi, plant, or animal. Each unit is supplemented with hands on activities, labs, and group work.

Environmental Science: Students are exposed to a variety of environmental issues. The topics include water and air pollution, soil conservation, and solid waste disposal. **(1cr.)**

### **403 General Science 8:**

In 8th grade General Science students will be exposed to a wide variety of information in the field of Earth and Space Science as well as Physical and the Nature of Science. Subjects will include, Earth and Space Science, Chemistry and Physics. A wide variety of labs will be performed for each chapter to help explain concepts. **(1cr.)**

### **408 Biology:**

This course is a study of the basic processes and groupings of all living things. This study begins by grouping organisms into a five-kingdom system. The processes of metabolism, respiration, photosynthesis, cell division, reproduction, and absorption are compared and contrasted among the organisms in the different kingdoms. An introductory genetics unit leads to an intense study of human genetics and genetic engineering. Dissections of an earthworm, starfish, fish, and frog allow students to observe the anatomical and physiological differences between invertebrates and vertebrates.

Lectures, labs, demonstrations, activities, microscope study, and projects enable students to understand life around them and to enjoy the world of science. Grade 10. **(1.0 cr)**

#### **410 Ecology:**

The study of the interaction of living things with their environment. An investigation of matter and its properties is related to the chemical make-up of the environmental factors which includes the land, air and water. The relationships between the abiotic and biotic factors in the environment are examined by performing labs, activities, water testing, soil testing, and microscopy. Types of pollution and their effects on the environment are discussed. This course prepares students to make informed decisions concerning the welfare of not only their future, but also their roles to protect the future for generations to come. Grade 9. **(1.0 cr)**

#### **411 Environmental Science:**

A study of patterns and processes in the natural world and their modification by human activity. This course will survey some of the many environmental science topics at an introductory level, ultimately considering the sustainability of human activities on the planet. Laboratory activities will be used to supplement and help interpret the individual units. Grades 11-12. **(1.0 cr)**

#### **412 Chemistry I (Honors):**

This course will be a rigorous survey of topics in chemistry including measurement, atomic structure, the periodic table, ionic and covalent bonding, nomenclature, chemical formulas, balancing equations, the mole, and stoichiometry. This will be a challenging class intended for high-achieving students. It will require a good basis in mathematics and will focus not only on the fundamentals of chemistry, but also on problem solving in general. Since laboratory exploration is an integral part of learning chemistry, two-three laboratory periods per week are required. This course is weighted. Grades 11 & 12. **(1.5 cr)**

Prerequisites: Algebra I

Honors Ecology & Biology with a B+ average (87%) or higher **or**  
College Prep Ecology & Biology with an A- (90%) or higher

#### **415 Chemistry I:**

This course will be a survey of topics in chemistry including measurement, atomic structure, the periodic table & ionic bonding. It will require a good basis in mathematics and will focus not only on the fundamentals of chemistry, but also on problem solving in general. This will be a challenging class that any student considering a two or four-year college should consider. Laboratory exploration will be an integral part of the class, but there will be no separate lab period. Grades 11-12. **(1.0 cr)**

Prerequisite: Algebra I

### **417 Physics:**

This introductory course should be taken by any student who plans to study engineering, chemistry, physics, or medicine in college. It is a challenging course that will introduce the student to basic concepts in physics while improving his/her problem solving skills. To accomplish this objective, motion and forces in one and two dimensions will be studied as well as gravitation and relativity. Problem solving will be highly emphasized. In addition to the traditional classroom activities, laboratory investigations will be performed, but there will be no separate lab period. This course is weighted. Grade 11-12.

Prerequisite: Algebra I. **(1.0 cr)**

### **450 Organic Chemistry:**

This course is for those students who are interested in chemistry and have a basic understanding of chemical principles. Students interested in medicine, environmental science, biology, chemistry, biochemistry and health are encouraged to take this course. Topics of study include bonding, molecular representations, resonance, acids & bases, nomenclature, and stereoisomerism. This course is weighted. **(1.0 cr)**

Prerequisite:

Honors Chemistry I with a B+ average (87%) or higher (preferred)

or

Chemistry I with an A- (90%) or higher

### **608 Natural Resources:**

This course will allow the student to learn about our Pennsylvania natural resources. Those areas include soils, water, forestry, aquatics, and current issues such as air quality, climate change or urban sprawl. The class is recommended for any student who is interested in nature and has a concern for the environment. Students enrolled in the class can participate in the intra-curricular activities of the FFA. Grades 11-12. **(0.5 cr)**

### **609 Animal Science:**

The course is designed for the academic minded students who are interested in learning about the care of animals. Students should have biology before taking this course. The contents of the course will include: vet terminology, directional terminology, animal health systems (respiratory, circulatory, nervous, digestive), small animal basic vet skills (sutures, injections, bandaging), and dissection of a fetal pig. Students enrolled in the class can participate in the intra-curricular activities of the FFA Grades 11-12. **(0.5 cr)**

## **AGRICULTURAL SCIENCE**

### **602 Agriculture Science 8:**

This course is taught as an orientation to the world of agriculture and agriculture related businesses. Students enrolled in this class will spend 45 periods studying the different careers available in agriculture. Students are also familiarized with several additional areas, such as leadership skills, animal science, ag mechanics, and the intra-curricular organization, FFA. This course will have a culminating hands-on project using simple tools in the Agriculture shop. Students in eighth grade are eligible to enroll in the FFA. Members joining FFA will receive additional training on how to establish an SAE project and record keeping. **(0.25 cr)**

### **605 Agriculture Science 9:**

This is the first year of a four-year training program in experience projects, salesmanship and leadership skills. Students will receive training in soil science with emphasis placed on soil series, textures, profiles, land use capabilities and soil fertility in regard to Ph and nutrients. They will also be introduced to dairy and livestock breeds with emphasis on origin, selection, and reproduction. Students will receive training on the safe operation of power machines and power hand tools, with tool fitting and repair being incorporated into the course. Students will learn to plan and calculate cost of materials. Time will be provided for the students to plan and calculate cost of materials. Time will be provided for the students to plan to construct a project of and they will need to establish an SAE project. In addition, a student may receive one additional credit if 120 hours of Supervised Agriculture Experience (SAE) is substantiated. Semester or year. Grade 9. **(0.5 or 1.0 cr)**

### **606 Agriculture Science 11-12:**

This course includes the study of animal science as it relates to the production of dairy, swine, beef, sheep, fish, and horses. Shop skills taught will include electric and gas welding, small engine repair and the safe use of power hand tools and large equipment. Course will include a unit in plant science, which will cover principles of plant growth, land evaluation, and soil fertility. Shop skills taught the second year will emphasize electrical wiring and basic plumbing skills. Students will develop employable skills in management, salesmanship, and leadership. Skills are taught to improve the students' knowledge and ability to own or operate their own ag-business. Students will be required to complete required shop projects. The course will incorporate the use of English, math and science skills. Students will learn to use the AET online record keeping system. In addition, students may receive one additional credit with 120 hours of Supervised Agriculture Experience (SAE) or if they have a substantial ag-business established. Students will compete in FFA sponsored activities to develop leadership skills. Semester or year. Grades 10-12. **(0.5 or 1.0 cr)**

### **607 Agriculture Science 10-12:**

This course covers topics from the vast field of agriculture and agriculture-related business. Students will work on their ag mechanics' skills, a unit of food science/ meat science and continue gaining knowledge of the production agriculture species prevalent in our area. Students will develop leadership and job readiness skills throughout the year. Students will continue their SAE programs with the use of the AET record keeping system to prepare them for additional FFA degree applications. In addition, a student may receive one additional credit if 120 hours of Supervised Agriculture Experience (SAE) is substantiated. Semester or year. Grade 12. **(0.5 or 1.0 cr)**

### **805AG Business Agriculture:**

This course explores every aspect of small business management from planning and financing a new business venture including the creation of a small business plan, preparation of net worth statement and balance sheets. In addition, knowledge of the product development, niche markets and sales communication process as well as the specific techniques and strategies used in selling will be covered. This course also emphasizes customer service concepts, daily business operations and practices which are crucial to the operation of a successful business. Students will have the opportunity to facilitate presentations in a "Shark Tank" format to better understand the business presentation process. Additional topics will be presented as time permits and at the discretion of the instructor. Grade 10-12 **(1.0 cr.)**

### **610 Agriculture Science (Independent Study):**

This course is designed for academic students who enrolled in college level courses but not able to schedule regular agricultural classes. Subject areas to be covered are plant and animal science. Leadership skills and salesmanship skills are stressed. The student may develop and maintain records in a supervised agriculture project. In addition, a student may receive one additional credit if 120 hours of Supervised Agriculture Experience (SAE) is substantiated. Students will be able to participate in FFA sponsored activities. Grades 9-12. **(.25 to 1.00 cr)**

### **611 SAE Course:**

While concurrently enrolled in an agriculture class, credit will be issued for satisfactory work in the student's Supervised Agriculture Experience. Grades 9-12. **(1.00 cr)**

## PHYSICAL EDUCATION/HEALTH

### **063 Health and Physical Education 6:**

Physical education is required of all students unless they are excused by a physician. Classes meet daily for 45 days (one marking period). Physical education is a phase of education which is concerned with developing the total physical and mental well-being of the individual so that he or she may participate to the fullest capacity in work and play of school life and of the years which lie beyond. The program will introduce the student to a number of physical and sport skills which will facilitate his or her participation in play and make possible a frequent workout, resulting in improved physical fitness. Within the class there is an opportunity to develop skills and attitudes that may be utilized in physical activity long after one leaves school. A balanced program of individual and team sports is presented.

### **413 Anatomy and Physiology :**

This year long course is a rigorous advanced health/biology course designed to introduce students to the parts and functions of the human body and how these parts work together to create a functional unit. Topics covered will include an orientation to the human body, cells and tissues, major systems of the body, and special senses. Students will complete projects and labs based on lectures. Science in Motion from Juniata College will be utilized to further expand the technology experience. Guest speakers, field trips, and dissection labs will provide a well-rounded course in anatomy and physiology. This course should be taken by anyone who is interested in a health or medical related field and thinking about pursuing these fields after school. A certification in CPR will be offered as an addition to this course. Grades 11-12.  
**(1 cr)**

### **500 Physical Education 7:**

Physical education is required of all students unless they are excused by a physician. Classes meet daily for 45 days (one marking period). Physical education is a phase of education which is concerned with developing the total physical and mental well-being of the individual so that he or she may participate to the fullest capacity in work and play of school life and of the years which lie beyond. The program will introduce the student to a number of physical and sport skills which will facilitate his or her participation in play and make possible a frequent workout, resulting in improved physical fitness. Within the class there is an opportunity to develop skills and attitudes that may be utilized in physical activity long after one leaves school. A balanced program of individual and team sports is presented.  
**(.20 cr)**

**502 Physical Education 9-12:**

Physical education is required of all students in grades 9-12. Classes meet twice per week and run through the entire year. The required physical education program will introduce the student to a number of physical and sport skills which will facilitate his or her participation in play and make possible a frequent workout, resulting in improved physical fitness. In the physical education class there is an opportunity to develop skills and attitudes that may be utilized in physical activity long after one leaves school. A balanced program of individual and team sports is presented. **(0.25 or .5 cr)**

**503 Contract Physical Education:**

For those students who are unable to schedule physical education, primarily because of Career and Technology courses, the option to contract for their PE credit will be available. The contract will involve a choice of activities that must be out and signed by the student and his/her parent each week and turned in to the guidance office each Monday or the first school day of the week. Failure to do so will result in credit being denied. The course will be graded pass/fail.

Prerequisite: On a student by student basis. Permission of school counselor or principal. **(0.5 cr)**

**506 Health I (9-10):**

This is a comprehensive course with a guiding approach to wellness education. This course helps students to understand wellness concepts through direct, simple explanations and high-interest content. The content will cover nutrition, weight control, nervous system, skeletal and muscular system, endocrine, circulatory, and respiratory system, and digestion.

This course meets every other day **(0.5 cr)**

**507 Driver's Education (classroom):** This course includes the study of rules, regulations, and signs of the highway transportation system. The students will be given information on obtaining a learner's permit. They will learn the importance of vehicle maintenance and financial responsibility requirements. Students will be introduced to both physical and cognitive aspects of the driving task. This course meets two days per week for one semester. Grade 10. Note: The Driver's Education practicum course will be arranged according to a sign-up with the teacher. Times will vary dependent on summer hours and after school schedules. **(0.25 cr)**



**508 Health II (11-12):**

This is a comprehensive course emphasizing mental health, stress, mental disorders, tobacco, alcohol, and drugs. The approach helps students apply wellness knowledge in making intelligent decisions about their own health and encourages them to achieve and maintain a high level of physical, mental, and social wellness. Additionally, this course will continue with units covering communicable and non-communicable diseases and disorders. A unit covering human sexuality will include topics covering a range of family and social health issues. This course meets every other day. **(0.5 cr)**

**510 Physical Education 8:**

Physical education is required of all students unless they are excused by a physician. Classes meet daily for 45 days (one marking period). Physical education is a phase of education which is concerned with developing the total physical and mental well-being of the individual so that he or she may participate to the fullest capacity in work and play of school life and of the years which lie beyond. The program will introduce the student to a number of physical and sport skills which will facilitate his or her participation in play and make possible a frequent workout, resulting in improved physical fitness. Within the class there is an opportunity to develop skills and attitudes that may be utilized in physical activity long after one leaves school. A balanced program of individual and team sports is presented.

**(.20 cr)**

## ELECTIVES

*Elective credits may also be taken from any department course offerings above and beyond the required credits as well as from the following programs:*

### **BUSINESS / COMPUTER TECHNOLOGY/ COMPUTER SCIENCE**

#### **799 Computer Science Fundamentals: Express**

The course teaches the foundational concepts of programming using drag and drop blocks rather than a programming language such as JavaScript or Python. Students learn to create computer programs that will help them learn to collaborate with others, develop problem-solving skills, and persist through difficult tasks. They will study programming concepts, computational thinking, digital citizenship, and develop interactive games or stories they can share. Grade 7 **(.25 cr)**

#### **809 Introduction to Accounting:**

A study of analyzing, classifying, and recording business transactions in a manual and computerized environment. Emphasis on understanding the complete accounting cycle and preparing financial statements, bank reconciliations, and payroll. Students will define accounting terminology; analyze and record business transactions; complete the accounting cycle; prepare financial statements; and apply accounting concepts related to cash and payroll. Grades 10-12 or as approved by instructor. **(1.0 cr)**

#### **811 Accounting II:**

The Accounting II course is a skill level course that is of value to all students who plan to major in any facet of business in college, not just for potential accounting majors. While building on basic math skills, students learn the importance of keeping accounting records; learn a broader business vocabulary; compute, classify, record, verify and maintain numerical data involved in transactions; prepare financial reports; study accounting careers, banking, tax and payroll transactions. This class is typically independent study. Students will be given an outline of assignments in Canvas with due dates for each chapter. Grades 11-12. **(1.0 cr)** Prerequisite: Accounting I

**813 BUS 110 – Introduction to Business:**

This course examines the social, legal, ethical, economic, and political interactions of business and society. This is a basic foundation for the student who will specialize in some aspect of business and will also provide the opportunity for non-business majors to learn about the relationship and impact of business to a society in which they are citizens, consumers, and producers. The class includes such topics as economic systems, government and business, ethics and law, social responsibility, globalization and international business concepts, principles and practices. Eligible for college credit through Penn Highlands Community College. **(3.0 college credits)**

**814 CIT 100 – Microcomputer Applications:**

This hands-on course introduces the student to the more popular microcomputer software packages available including Windows, word processing, spreadsheets, presentations, and databases. This course provides students with a working knowledge of these software packages to accomplish the more common tasks. The Microsoft Office suite, including MS Word, MS Excel, MS PowerPoint / Sway, and MS Access is used. Eligible for college credit through Penn Highlands Community College. **(3.0 college credits)**

**825 Computer Science Discoveries:**

The course takes a wide lens on computer science by covering topics such as programming, physical computing, HTML/CSS, and data. The course inspires students as they build their own websites, apps, games, and physical computing devices. Grade 9 **(1.0 cr)**

**826 Computer Science Principles:**

This course is designed to prepare students who are new to computer science for the AP CS Principles exam. The course covers many topics including the Internet, Big Data and Privacy, and Programming and Algorithms. **Grade 10-12 Elective (1.0 cr) Beginning 2020 School year**

**815 Business Communication:**

Basic theory and processes of communication skills necessary for the management of today's workforce. Students will explain the communication process; identify and remedy major communication barriers; describe how communication contributes to effective management of both an office atmosphere and employee/employer relationship. In addition, students will complete units in public speaking, parliamentary procedure, social media and business presentation and publication design as they all relate to business communication. Grade 9-12 **(1.0 cr)**

**816 Office Practices & Procedures:**

Students will learn simple and complex office skills through the production and marketing of the yearbook. This class will function as a working office environment with an office staff whose job it is to market and produce a product which meets the demands of the consumer (students). Students will be given job titles such as office manager, creative designer, marketing strategist etc. and will all be required to attend weekly staff meetings during class to facilitate communication and simulate an office environment.

Throughout this course, students will learn basic office skills such as effectively making and receiving phone calls, emailing, writing formal business letter and using office machines. In addition, students will learn basic marketing techniques as the book is being published and event coordination as it is distributed. Students will also learn to develop time management techniques; demonstrate communication skills and to meet deadlines. Grade 9-12 **(1.0 cr)**

**810 Business Leadership:**

This independent study program is designed for students who have demonstrated a high degree of motivation and the ability to work independently. Students must have an area of interest in business and a selected topic in which they are to study for each quarter of the year. A plan should be prepared for each term of the year prior to the start of the term and approved by the instructor. Grades 10-12 **(1.0 cr.)**

**812 Economics and Personal Finance:**

Real world topics covered will include economics, income, money management, risk management, spending and credit, as well as saving and investing. Additional topics will include paying for post-secondary education identity theft and recognizing financial scams. Students will design a final project outlining their plan for managing finances as an adult in the future. Grade 12 **(1.0 cr.)**

**817 Marketing, Sports, & Entertainment Management:**

This course gives students the opportunity to examine marketing from both the business and consumer perspective. We will examine the application of marketing functions, promotional strategies, along with the social, ethical and legal responsibilities of managing a business. There will be an emphasis on examining these marketing and management principles as they relate to the sports and entertainment marketing. Guest speakers, case studies, field trips, online activities, in addition to operating the school store and assisting with athletic events will broaden the classroom experience. Grades:10-12 **(1.0 cr.)**

### **818 Office Practicum:**

The purpose of the Practicum experience is to immerse students in a school environment under structured office conditions. The Practicum student will observe and work with an experienced office manager or administrative assistant as a means of advancing his/her understanding of best office practices and procedures. These experiences are designed to reinforce concepts introduced in program course work. Practicum students will have the opportunity to apply theory to practice as they assume limited office responsibilities under controlled and supervised conditions. This Practicum course experience is intended to serve as a developmental bridge between field observations of administrative assistants and classroom study. Students will be required to keep a log of tasks performed as well as complete a culminating activity at the end of the course. This must be pre-approved by the instructor, office staff and administration prior to the start of the school year in which it is to appear on the schedule.

Grades:11-12 **(1.0 cr.)** Prerequisite: Office Practices & Procedures **Inactive**

### **805 Small Business Management: Shark Tank**

This course explores every aspect of small business management from planning and financing a new business venture including the creation of a small business plan, preparation of net worth statement and balance sheets. In addition, knowledge of the product development and sales communication process as well as the specific techniques and strategies used in selling will be covered. This course also emphasizes customer service concepts, daily business operations and practices which are crucial to the operation of a successful business. Students will have the opportunity to facilitate presentations in a "Shark Tank" format to better understand the business presentation process. Additional topics will be presented as time permits and at the discretion of the instructor. Grade 10-12 **(1.0 cr.)**

## ADVANCED PLACEMENT

### ADVANCED PLACEMENT COURSES OFFERED ON-SITE AT JUNIATA VALLEY HIGH SCHOOL

**Note: These courses are offered at a cost for the student. Please contact Ms. Smith for more details.**

#### **AP Studio Art:**

Students work with diverse media, styles, subjects, and content. Each of the three portfolios consists of three sections:

- 4- *The Range of Approaches* (Breadth) section illustrates a range of ideas and approaches of art making.
- 5- *The Sustained Investigation* (Concentration) section shows sustained, deep, and multiperspective investigation of a student-selected topic.
- 6- *The Selected Works* (Quality) section represents the student's most successful works with respect to form and content.

Students' work is informed and guided by observation, research, experimentation, discussion, critical analysis, and reflection relating individual practices to the art world. Students are asked to document their artistic ideas and practices to demonstrate conceptual and technical development over time. **(1 credit)**

#### **AP U.S. Government and Politics**

This college-level course will give students an analytical perspective on government and politics in the United States. This course includes both the study of concepts used to interpret U.S. government and politics and the analysis of specific examples. It also requires familiarity with various institutions, groups, beliefs and ideas that constitute U.S. Government and politics. Students will be able to describe and compare concepts and theories pertaining to U.S. government, explain patterns of political process and behaviors, interpret data and critically analyze relevant theories and concepts. This course meets the rigorous standards of the College Board and was designed to prepare students to sit for the AP U.S. Government and Politics Exam. **(1 Credit)**

**AP European History:**

This college-level course will give students an analytical perspective into the study of the cultural, economic, political, and social developments that have shaped Europe from c. 1450 to the present. You'll analyze texts, visual sources, and other historical evidence and write essays expressing historical arguments. The following units will be covered: Unit 1: Renaissance and Exploration, Unit 2: Age of Reformation, Unit 3: Absolutism and Constitutionalism, Unit 4: Scientific, Philosophical, and Political Developments, Unit 5: Conflict, Crisis, and Reaction in the Late 18th Century, Unit 6: Industrialization and Its Effects, Unit 7: 19th-Century Perspectives and Political Developments, Unit 8: 20th-Century Global Conflicts, Unit 9: Cold War and Contemporary Europe. This course meets the rigorous standards of the College Board and was designed to prepare students to sit for the AP European History Exam. **(1 Credit)**

## **ADVANCED PLACEMENT COURSES OFFERED ONLINE THROUGH THE JUNIATA VALLEY VIRTUAL ACADEMY (These courses are at a cost to the student)**

### **AP English Language and Composition:**

This college-level course is designed to provide the in-depth reading and writing skills that students need for college success. Critical and responsive reading skills are cultivated and developed using diverse fiction and nonfiction texts. Writing activities support and deepen students' understanding and control of formal conventions of written language, while broadening their understanding of how language is used rhetorically in formal and informal texts. This course meets the rigorous standards of the College Board and was designed to prepare students to sit for the AP English Language and Composition Exam.

### **AP English Literature and Composition:**

This college-level course helps students hone their critical literary analysis skills. Through intensive reading assignments, students explore language, character, action and theme. Students also write compositions representing a variety of genres, including literary analysis, exposition, argument, narrative and creative writing. This course meets the rigorous standards of the College Board and was designed to prepare students to sit for the AP English Literature and Composition Exam.

### **AP Calculus AB:**

This college-level course addresses such topics as elementary functions, properties of functions and their graphs, limits and continuity, differential calculus and integral calculus. Students are expected to work with functions graphically, numerically and analytically. Challenging and engaging assignments reinforce content. This course meets the rigorous standards of the College Board and was designed to prepare students to sit for the AP Calculus AB Exam.

### **AP Calculus BC:**

This college-level course focuses on the calculus of functions of a single variable. Students will build upon topics taught in Calculus AB, including but not limited to limits, derivatives, integrals and approximation. Throughout the course, emphasis is placed on using multiple representation by expressing concepts graphically, numerically, analytically and verbally. This course meets the rigorous standards of the College Board and was designed to prepare students to sit for the AP Calculus BC Exam.



**AP Biology:**

This college-level course focuses on conceptual understandings of four big ideas: 1) The process of evolution drives the diversity and unity in life; 2) Biological systems utilize free energy and molecular building blocks to grow, to reproduce and to maintain dynamic homeostasis; 3) Living systems store, retrieve, transmit and respond to information essential to life processes; 4) Biological systems interact, and these systems and their interactions possess complex properties. Challenging and engaging assignments reinforce the content. This course meets the rigorous standards of the College Board and was designed to prepare students to sit for the AP Biology Exam.

**AP Chemistry:**

This college-level course covers such topics as atomic theory and structure, chemical bonding, states of matter and reactions. Challenging and engaging assignments reinforce the content. This course meets the rigorous standards of the College Board and was designed to prepare students to sit for the AP Chemistry Exam.

**AP Environmental Science:**

This college-level course provides students with the scientific principles, concepts and methodologies required to understand the interrelationships of the natural world. Students will identify and analyze environmental problems that are both natural and human-made. They will evaluate the risks associated with these problems and examine alternative solutions to addressing them. This course meets the rigorous standards of the College Board and was designed to prepare students to sit for the AP Environmental Science Exam.

**AP European History:**

This college-level course covers European History from the High Renaissance to the present. Topics include important political, economic, religious, social and intellectual developments that occurred in Europe during that time period. Students demonstrate an understanding of historical events and themes through a variety of challenging and engaging writing assignments. This course meets the rigorous standards of the College Board and was designed to prepare students to sit for the AP European History Exam.

**AP Human Geography:**

This college-level course will introduce students to the systematic study of patterns. Aside from interpreting maps and analyzing geospatial data, students will learn to define regions and evaluate the regionalization process, characterize and analyze changing interconnections among places, and understand and explain the implications of associations and networks among phenomena in places. This course meets the rigorous standards of the College

Board and was designed to prepare students to sit for the AP Human Geography Exam.

### **AP Physics 1: Algebra-Based**

This college-level course is an algebra-based, introductory physics course. Students explore topics such as Newtonian mechanics, rotational motion, work, energy, power, mechanical waves, sound and an introduction to circuits. This course meets the rigorous standards of the College Board and was designed to prepare students to sit for the AP Physics 1 Algebra-based Exam.

### **AP Physics 2: Algebra-Based**

This college-level course is an algebra-based, introductory physics course. Students explore topics such as Newtonian mechanics, rotational motion, work, energy, power, mechanical waves, sound and an introduction to circuits. This course meets the rigorous standards of the College Board and was designed to prepare students to sit for the AP Physics 1 Algebra-based Exam.

### **AP Psychology**

This college-level course is designed to introduce students to the systemic and scientific study of the behavior and mental processes of human beings. Students are exposed to the psychological facts, principals, and phenomena associated with each of the major subfields within psychology. They will also learn about the ethics and methods psychologists use in the science and in practice. This course meets the rigorous standards of the College Board and was designed to prepare students to sit for the AP Psychology Exam.

### **AP U.S. Government and Politics**

This college-level course will give students an analytical perspective on government and politics in the United States. This course includes both the study of concepts used to interpret U.S. government and politics and the analysis of specific examples. It also requires familiarity with various institutions, groups, beliefs and ideas that constitute U.S. Government and politics. Students will be able to describe and compare concepts and theories pertaining to U.S. government, explain patterns of political process and behaviors, interpret data and critically analyze relevant theories and concepts. This course meets the rigorous standards of the College Board and was designed to prepare students to sit for the AP U.S. Government and Politics Exam.

### **AP U.S. History**

This college-level course is an intensive study of United States history from 1492 to the present. Students learn how to analyze, evaluate and interpret historical sources and evidence. This course requires extensive reading, research and writing and meets the rigorous standards of the College Board. It was designed to prepare students to sit for the AP U.S. History Exam.

**AP World History**

This college-level course is an intensive study of United States history from 1492 to the present. Students learn how to analyze, evaluate and interpret historical sources and evidence. This course requires extensive reading, research and writing and meets the rigorous standards of the College Board. It was designed to prepare students to sit for the AP U.S. History Exam.

## **SCHOOL-TO-WORK**

### **880 School-to-Work Experience:**

Seniors who have a specific vocation/career goal may elect to spend one half of the school day at a work experience site. The student must find the site and submit a list of goals which he/she hopes to accomplish at the work site. The student must complete the Training Agreement and submit all the required signatures before the work experience can be scheduled. A satisfactory evaluation must be received each quarter from the site supervisor in order for the student to remain on the job. Grade 12.

Prerequisite: Overall grade point average 2.0 and permission of school counselor/principal. Pass/Fail **(No Credit)**

### **890 Elementary School Aide:**

Students in Grades 11 and 12 may elect to work with an elementary school teacher. The purpose of the course is to prepare students to work with children either in a social service setting or in a school/preschool environment. Students must have a career goal which entails working with children in a variety of settings. Students who enroll in the course will be matched with a teacher-mentor in the elementary school.

Prerequisite: approval from administration. Pass/Fail. **(No Credit)**

### **891 High School Aide:**

Students in Grades 11 and 12 are permitted to apply to work with a teacher/staff member in the high school or district office. However, students and teachers will be asked to complete a contract which lists the responsibilities of the student. No high school aide will have access to any student records, including tests, scores, or graded material. The contract will be submitted to the high school office and remain on file. A teacher/staff member may have only one aide per year.

Prerequisite: Permission of instructor. Pass/Fail **(No Credit)**

**DUAL ENROLLMENT:** Juniata College, Mt. Aloysius College, Penn Highlands Community College, The Pennsylvania State University, Harrisburg Area Community College, & Clarion University

The Dual Enrollment program is offered to high school students that meet the GPA requirements and want to earn college credit while in high school. Dual enrollment courses are offered at Juniata Valley High School through Mt. Aloysius and Penn Highlands Community College and on campus at Juniata College.

(Information for Dual Enrollment is available in the Guidance Office.)

*Note: All college courses are weighted for credit.*

## **HUNTINGDON COUNTY CAREER & TECHNOLOGY CENTER**

The Huntingdon County Career and Technology Center offers 14 programs organized into five career academics. A student will apply to a career academy and declare a major. Upon acceptance into a career academy and verification of your major, a student may have the opportunity to meet with HCCTC staff and also declare a minor. All students will receive instruction in leadership, career planning, entrepreneurship, and computer skills. All programs qualify for 3.0 credits.

### **ACADEMY OF AUTOMOTIVE AND MANUFACTURING TECHNOLOGY**

#### **902 Collision Repair and Refinishing:**

Apply techniques necessary to restore a damaged vehicle to its original condition. The Auto Body Repair Technician must be able to repair and properly match paint on vehicle bodies, repair vehicle frames, and understand mechanical, electrical and electronic systems. The repair person works with metals, plastics and fiberglass in repairing the vehicle.

#### **903 Automotive Mechanics:**

Diagnose vehicle problems then perform the necessary repairs. This may involve repairing or replacing parts of the automobile. During these procedures the automotive mechanic may use hand tools, power tools, ignition machines, meters and handheld computer scanners. In addition, students learn four-wheel alignment, steering and suspension service, brake service, engine performance, electronic fuel injection and computer operational controls. Students will also receive instruction to help them acquire their Pennsylvania Safety Inspection and ASE Refrigerant Recovery and Recycling Certifications.

#### **905 Precision Machining:**

Covers two general trade areas; machining and welding. In machine trades students learn to shape metal to precise dimensions using blueprints and machine tools. All types of bench and machine tools are used to cut, drill, grind and form various types of metals. Operation and programming of a numerical control (NC) milling machine and a computerized numerical control (CNC) lathe, which can perform faster and more precisely than traditional machines, are included. The welding portion of the program teaches the basic techniques of arc, gas tig and mig welding, testing and inspection of welds, metallurgy, blueprinting reading, plasma cutting and fabrication techniques. Students learn the properties and characteristics of metals and proper methods of joining these metals.

## **ACADEMY OF COMPUTER TECHNOLOGY**

### **906 Electrical Occupations:**

Electrical Occupations is the study of basic theories of electricity and magnetism that explain the operation of various electrical systems. Students learn to apply these electrical theories and concepts in the practical shop activities. Students will learn to layout, assemble and install various circuits and electrical equipment used in residential, commercial, and industrial settings. The program also covers light installation, switches, transformers and motor controls.

### **908 Carpentry:**

Introduces students to basic techniques used in residential construction. The areas covered within this program are rough framing, site work, interior and exterior finishing, concrete setup and energy conservation. Working from a set of blueprints, individuals learn to layout, cut and assemble projects and wood frame structures safely using the proper hand and power tools. In the masonry portion of the course students learn the basic skills of masonry construction, including bricklaying and block laying.

### **909 HVAC/Refrigeration:**

Installation and maintenance of commercial and domestic refrigerators and freezers; automobile air conditioners and residential air conditioner; commercial ice makers; and air to air heat pumps. These are the main areas of instruction that an Air Conditioning/Refrigeration student will encounter.

### **910 Plumbing/Heating:**

Learn the techniques to install, repair and maintain the plumbing and heating systems of a residential or commercial building. Blueprint reading, building codes and regulations, and the proper handling of fixtures and components of the systems are part of the program. The students also gain an understanding of heating systems, furnaces, boiler, water heaters, oil burners, pumps, circulators and control systems. Soldering, welding and related electrical skills are included in the coursework.

## **ACADEMY OF COMPUTER TECHNOLOGY**

### **911 Computer Networking:**

Students are given the skills necessary to install, program, operate, maintain, service and diagnose operational problems in both computer hardware and software. Students will also learn the fundamentals of computer networking and network administration. The successful student in the Computer Servicing Program is given the opportunity to become certified in any of four CompTIA A+ certification domains, CompTIA Net+ certification, or Microsoft MCP certification. These certifications prepare the student for immediate employment in the computer maintenance field. Many students have also continued their education in either two or four-year college programs. The Computer Servicing Technology Program is a three-year program designed for both secondary and post-secondary students consisting of 1080 clock hours to complete the entire program.

## **HEALTH AND HUMAN SERVICES**

### **913 Cosmetology:**

The science of beautifying the skin, nails and hair with proper techniques and products. From a career view, cosmetology is an exciting, creative profession that is a multi-billion-dollar industry that grows bigger daily. The goal of this course is to provide the skills and 1250 hours of instruction necessary to pass the State Board of Cosmetology licensing examination as well as preparing the student with skills necessary for employment in a salon.

### **914 Culinary Arts:**

Provides training and certifications in the food service industry through extensive hands-on experience utilizing the latest trends, and equipment meeting industry standards. Students receive instruction in safety and sanitation, hot and cold food preparation, pastry arts, nutrition, menu planning, displays banquet and dining room services and all aspects of food preparation for a successful career in culinary arts. Leadership and team skills are developed through FCCLA (Family Career Community Leader of America) youth organization. ServSafe certification nationally recognized is also available.

**916 Public Health & Safety:**

This is an instructional program that prepares individuals to apply technical knowledge and skills required to perform entry level duties as a police officer, fire fighter, paramedic and other safety services. This program stresses the techniques, methods and procedures peculiar to the areas of criminal justice and fire protection especially in emergency and disaster situations. Physical development and self-confidence skills are emphasized due to the nature of the specific occupation. In addition to the application of mathematics, communication, science and physics, students receive training in social and psychological skills, map reading, vehicle and equipment operations, the judicial system, pre-hospital emergency medical care and appropriate emergency assessment, treatment and communication.

**918 Health Occupations:**

A 3-year program of study and training in diverse health care fields. Students enrolled in this curriculum will be exposed to many types of health care occupations and skills including: nursing, medical assisting, respiratory therapy, radiology technician, dental assisting, and physical therapy. Students will have the opportunity to obtain CPR/AED certification. Students will participate in a clinical experience at local health care facilities. Students also participate in job shadowing in various departments at a local hospital. Emphasis is placed on professionalism, job seeking, and job seeking skills. Professional development workshops will provide the tools for students to be successful in employment and life. Students who are eligible will participate in a Certified Nurse Assistant class to enable the student to obtain certification in this area. Students will also explore various clerical duties that are relevant to medical offices and health care facilities.