

**West Branch High School**

**Course Selection Book**

**2020-2021**

Dear West Branch High School Students and Parents:

It is time to select your courses for the 2020-21 school year. Here at West Branch, we offer many courses that provide opportunities for personal and academic growth of the student. There are many elective classes and several dual enrollment courses that are available to a wide range of students in grades 9 - 12.

Please take the time to read through the course descriptions of the courses that you are interested in taking in order to ensure that you meet the requirements and that the class is in line with your interests. Also, check closely the prerequisites and information on weighted grades as this can be very important to your success in the class. Furthermore, it is important to consider your plans for the future, your interests, and your abilities when you are choosing courses for next year. Parental involvement in arriving at these decisions is essential to the whole process. Our counselors are available to you during this time period and will be glad to assist you with your planning.

Thank you for your consideration in this matter.

Sincerely,

Joseph R. Holenchik  
Secondary Principal

**WEST BRANCH HIGH SCHOOL  
SCHEDULING GUIDELINES FOR 2020-2021**

**PROMOTION REQUIREMENTS**

Students must have earned the required credits to be enrolled in that year's homeroom. The following number of credits is required for promotion:

<b>Grade</b>	<b>Credits</b>
9	6
10	12
11	17
12	25

**GRADUATION REQUIREMENTS**

Students are required to demonstrate a mastery of student learning outcomes in the nine academic areas as specified by Chapter V, Section 5.202 of the PA School Code.

Students must demonstrate performance at proficient level or above on the Keystone Algebra 1, Literature, and Biology exams. If students do not meet proficiency on these state exams, they must show proficiency on a local assessment aligned with academic standards. Students who do not meet this requirement will not be eligible to graduate and cannot participate in senior activities.

Students must complete a graduation portfolio.

Students must earn specific credits in the following areas:

<b>Subject</b>	<b>Credits</b>
English	4
Math	4
Science	4
Social Studies	3.5
Physical Education	2
Arts and Humanities	2
Health	.5
Safety Education	.5
Electives	4
Computer Technology	.5

Students in the class of 2021 must complete a minimum of twenty-one (21) hours of community service. The 21 hours must have been earned during grades 9, 10, 11, or 12.

## SCHEDULE CHANGES

There are no schedule changes other than those made in cases of master schedule conflicts, extreme emergency, or extenuating circumstances. No schedule changes will be made after the first three (3) days of school.

### NOTE:

Please note that the district reserves the right to deny the offering of a course or section due to

1. Low student interest
2. Unavailability of a highly qualified teacher

Additionally, some courses will only be offered on an every-other-year rotating basis.

## WEIGHTED GRADES

<b>Academic (multiplied by 1.04)</b>	<b>Honors (multiplied by 1.08)</b>
Advanced English 9 – 12	Advanced English Composition
Advanced American History	Honors Chemistry II
Advanced U. S. History	Honors Physics
Advanced World Cultures	Calculus
Advanced Biology 9	Honors Anatomy
Pre-Calculus	Distinguished Literature & Writing
	Intro to Sociology
	Public Speaking

**DUAL ENROLLMENT** with Penn Highlands Community College (\$55.00-\$60.00 per credit):

Honors Chemistry II (4 credits)	Advanced English Composition (3 credits)
Calculus (4 credits)	United States History I & II (3 credits)
Public Speaking (3 credits)	Intro to Sociology (3 credits)

## COURSE DESCRIPTIONS (GRADES 9-12)

### ART CURRICULUM

SENIOR ART I (603) – Elective  
2 Semesters - 5 periods/wk (Grades 9-12) \_\_\_\_\_ 1 Credit

Primarily this course is designed for the student that would like to expand his or her knowledge and abilities in art. State art standards are a point of focus. Also, the student will be introduced to the tools and methods of drawing, design, and general art making of various artists.

CERAMICS (601) – Elective  
1 Semester – 5 periods/wk (Grades 11 & 12) \_\_\_\_\_ .5  
Credit

This course is an introduction to ceramic arts. Various hand-building and potter's wheel techniques will be taught in this course.

PHOTOGRAPHY (602) – Elective  
1 Semester – 5 periods/wk (Grades 11 & 12) \_\_\_\_\_ .5 Credit

This course is an introduction to black and white photography.

MUD, METAL, AND MAKERSPACE (600) – Elective  
1 Semester – 5 periods/wk (Grades 9 - 12) \_\_\_\_\_ .5  
Credit

This course is an introduction to the visual arts mediums of ceramics and jewelry making. Afterward, students will be challenged by a number of design related arts and technology projects that involve the use of a Makerspace.

### BUSINESS / TECHNOLOGY CURRICULUM

ACCOUNTING I (705) - Elective  
2 Semesters - 5 period/wk (Grades 10-12) \_\_\_\_\_ 1 Credit

This course teaches the basic fundamentals and principles of recording and summarizing business and financial transactions and analyzing, verifying, and reporting the results.

COMPUTER RESEARCH (702) - Required  
2 Semesters – Every other day (Grade 9) \_\_\_\_\_ .5 Credit

The student will learn to utilize online sources to create research projects, including: research papers, PowerPoint presentations, web pages, and spread sheet charts. Available to the student will be a variety of programs and resources.

MICROSOFT EXCEL (723) – Elective  
1 Semesters – 5 periods / wk (Grades 10-12) \_\_\_\_\_ .5  
Credit

Students will learn to create a spreadsheet, enter information, use formulas and functions, and apply formats, borders, and shading. Students will also learn how to create various charts.

**Prerequisite:** *Pre-Algebra*

MICROSOFT WORD (319) – Elective

1 Semesters – 5 periods / wk

(Grades 9-12)

.5

Credit

This course will give instruction on the word processing program of Microsoft Word (Microsoft Office 2013). Students will learn to create various styles of business letters, reports, and tables. Students will combine graphics and text to create newsletters, brochures, and flyers.

**Prerequisite:** Passing grade in 8<sup>th</sup> Grade Word (2015-16 and previous) or 7<sup>th</sup> Grade Word Processing (2016-17 and beyond)

### **PHYSICAL EDUCATION, HEALTH, AND SAFETY EDUCATION CURRICULUM**

PHYSICAL EDUCATION – (959, 963, 960, and 962) - Required

2 Semesters – Every other day

(Grade 9, 10, 11& 12)

.5 Credit

All students will demonstrate development in motor and physical fitness (aerobic fitness included) and required sport specific skills. This is achieved by participating in a planned program of sports and fitness activities.

ADAPTIVE PHYSICAL EDUCATION (709)

2 Semesters - 2 periods/wk

(Grades 9-12)

.5 Credit

The Adaptive Physical Education course affords a diversified program of developmental activities, games, sports, and rhythms. It is suited to the interests, capacities, and limitations of the students who may not safely engage in unrestricted participation within a standard physical education program.

**An excuse from a doctor must be presented for placement in Adaptive Physical Education each year.**

HEALTH 11 (964) - Required

2 Semesters – Every other day

(Grade 11)

.5

Credit

The primary focus of this required Health course would be on contemporary health problems facing our society today. It will also emphasize the relationships between the physical, mental-emotional and social well-being.

SAFETY EDUCATION (950) – Required

2 Semesters – Every other day

(Grade 10)

.5 Credit

The primary purpose of this Driver Education program is to reduce the number of traffic-related deaths and injuries occurring each year by producing competent, responsible, safety-oriented drivers.

### **TECHNOLOGY EDUCATION CURRICULUM**

**Note:** Students must pay for project materials used in these courses. Advanced projects using above average amounts of material will require payment in advance. All shop bills must be paid in the semester in which the course is taken.

WOOD TECHNOLOGY I (804) – Elective

1 Semester - 5 Periods/Wk

(Grades 9-12)

.5 Credit

Students are taught about wood and wood products and receive instruction in the safe use of hand tools and power tools used in the woodworking field. Industrial materials, visual communications, manufacturing, and construction are emphasized. This course provides basic instruction in the areas of project planning, materials billing, and furniture construction and finishing. Students are required to

pass safety examinations, performance tests, and quizzes measuring their knowledge of tools, machines, machine processes, and materials.

WOOD TECHNOLOGY II (805) – Elective

1 Semester - 5 Periods/Wk (Grades 9-12) \_\_\_\_\_ .5 Credit

Students receive a more complex knowledge of different types of wood and materials needed in fine woodworking. This course will review all machines within the lab, and students will be required to pass all safety and performance tests before moving on to the final project. This course provides advanced instruction on project planning, furniture construction, and finishing. The students will be able to choose their final project as a class. Students will also be taught fixture and jig design to aid in the manufacturing of their final project.

**Prerequisite:** Wood Technology I

DRAFTING/CAD II (810) – Elective

1 Semester - 5 Periods/Wk (Grades 9-12) \_\_\_\_\_ .5 Credit

This class requires students to build on knowledge previously learned in Technical Drawing. Students will be introduced to advanced isometric and assembly drawing. Also, students will learn to create pattern development and sectional drawings. This course will also give a brief introduction to architecture and Auto CAD.

ROBOTICS I (820) – Elective

1 Semester - 5 Periods/Wk (Grades 9-12) \_\_\_\_\_ .5 Credit

This course provides a basic but broad introduction to the field of robotics technology. Students master the fundamentals of robotics and the engineering design process while learning to use Autodesk® Inventor® design software and the VEX Robotics Design System. The laboratory component features basic activities to solidify lecture concepts and team-oriented, hands-on projects to solve basic robotics problems. Students will be exposed to the many facets of robotics including material from computer, electrical, and mechanical disciplines and will be better prepared for college and careers in engineering design, and robotics.

ROBOTICS II (822) – Elective

1 Semester - 5 Periods/Wk (Grades 9-12) \_\_\_\_\_ .5 Credit

This course provides an advanced knowledge of robotics and coding used in Robotics 1. Students work in teams to effectively solve advanced problems using robots built from Vex EDR robot kits. Students program the robots to solve specific challenges using the ROBOTC software. Robots bring code to life and allow students to see how what they're learning has a direct impact in the real world, and how individual math and engineering elements come together to form a solution to a real problem.

**Prerequisite** – Robotics I

FABRICATION: TRANSPORTATION SYSTEMS (821) – Elective

1 Semester - 5 Periods/Wk (Grades 10-12) \_\_\_\_\_ .5 Credit

In this course students will design and build models of transportation systems. Students will apply math, science, and technology concepts in order to create working models of planes, CO2 cars, mousetrap cars, and boats. Students will build on their knowledge of the 3D modeling program AutoCAD Inventor in conjunction with the 3D printer to bring their 3D drawing to a working model.

**Prerequisite-** Drafting II

TECHNOLOGY HELP DESK APPRENTICESHIP (710) - Elective

2 Semesters - 5 Periods/Wk (Grades 9-12) \_\_\_\_\_ 1 Credit

This course provides hands-on support for the West Branch School District 1:1 Laptop Program. Student help desk apprentices will build meaningful technical knowledge and problem-solving skills while providing valuable support to their peers. Under the guidance and supervision of West Branch IT staff,

student help desk apprentices will provide technical consultation and service, perform hardware repairs, resolve software problems, develop art/graphics, design and code. They will also be given access Microsoft IT Academy. Where they will be required to complete one course.

**Prerequisite:** 2.5 GPA, 90% Attendance, Oral and Written Interview, Summer Training Session

## INSTRUMENTAL MUSIC / CHORUS CURRICULUM

SR. HIGH INSTRUMENTAL MUSIC (605) - Elective

2 Semesters - 5 periods / wk (Grades 9-12) \_\_\_\_\_ 1  
Credit

**Individual Lessons** – Students will have the opportunity to develop technical ability on their major instrument.

The students will be required to complete 4 lessons each 9-week period, giving the student the time to meet with the instructor for individual assistance.

**Concert Band** - The concert band gives the students an opportunity to perform music from the different stylistic periods. Numerous performances are offered to members of the concert band.

Prerequisite: Instrumental Proficiency. **YOU MUST PASS PREVIOUS INSTRUMENTAL MUSIC CLASSES TO SCHEDULE.**

SR. HIGH CHORUS (607) - Elective

2 Semesters - 5 periods/wk (Grades 9-12) \_\_\_\_\_ 1  
Credit

The Senior Chorus gives the students an opportunity to perform music from the different stylistic periods. Numerous performances are offered to members of the chorus.

GUITAR (610) - Elective

1 Semester – 5 periods/wk (Grade 9 -12) \_\_\_\_\_ .5 Credit

This course will run for one half of a year. The school district will provide you with a guitar. You will learn about the guitar and what to look for when you want to buy a guitar. We will teach you to read music notation and chord symbols. Most of all we will help you learn how to play the guitar. This is for beginning guitar players!

MUSIC IN FILM (624) - Elective

1 Semester – 5 periods/wk (Grade 10 -12) \_\_\_\_\_ .5 Credit

This course will explore how we are exposed to music through film. The class will focus on the role music plays in film with an emphasis on the following:

1. Elements of Music In Film
2. Music and Film throughout from 1900
3. Music and Film Genres
4. The Evolution of the Musical

Students will be asked to analyze music and film examples in class. Supplemental reading and media resources may be used outside of class. Primary assessments will be class discussion and intensive writing-response assignments.

## LANGUAGE ARTS CURRICULUM

ENGLISH 9 (121A)



2 Semesters - 5 periods/wk (Grade 9) 1 Credit

This freshman course has five major components. These include research and writing, including a research paper in MLA format; study of novels and short stories, development of vocabulary; and the strengthening and improving of reading skills will be an added focus. Also students will study needed

grammatical skills and will be required to apply those skills to all writing.

The skills learned in all four areas are important to prepare for Keystone exams.

### **ENGLISH 9 (121)**

2 Semesters - 5 periods/wk (Grade 9) 1 Credit

This freshman course has four major components. These include research and writing, including a research paper in MLA format; study of novels and short stories; and development of vocabulary. Also, students will study needed grammatical skills and will be required to apply those skills to all writing. The skills learned in all four areas are important to prepare for Keystone exams.

### **ADVANCED ENGLISH 9 (120)**

2 Semesters - 5 periods/wk (Grade 9) 1 Credit

This freshman course has four major components: literature-including novels and short stories, writing-including research writing, grammar/usage, and vocabulary. Independent reading and extensive writing will be required. Many assessments will be in essay form. The skills learned are necessary for better performance in English studies and are the foundation needed for continued advanced work and preparation for the Keystone exams.

Prerequisites: Students must meet two of the three prerequisites that follow: grade of 86% or above in English 8; teacher recommendation; score of advanced/proficient on related standardized tests.

(Weighted multiplier of 1.04)

### **ENGLISH 10 (124A)**

2 Semesters - 5 periods/wk (Grade 10) 1 Credit

English 10 will emphasize a variety of literature, including nonfiction, short fiction, the novel, and drama. A strong emphasis will be placed on the five paragraph essay and will consist of both argumentative and narrative writing. A focus on the basics of research writing and MLA format will be taught. Students will review grammatical and stylistic skills and apply those to writing. The course will also focus on strengthening

and improving reading skills. This course is designed for students who will either attend some type of post-secondary

school or begin to work after graduation.

The Keystone Exam is given at the end of this course.

### **ENGLISH 10 (124)**

2 Semesters - 5 periods/wk (Grade 10) 1 Credit

English 10 will emphasize a variety of literature, including nonfiction, short fiction, the novel, and drama. A strong emphasis will be placed on the five paragraph essay and will consist of both argumentative and narrative writing. A focus on the basics of research writing and MLA format will be taught. Students will review grammatical and stylistic skills and apply those to writing. This course is designed for students who will either attend some type of post-secondary school or begin to work after graduation.

The Keystone Exam is given at the end of this course.

### **ADVANCED ENGLISH 10 (123)**

2 Semesters - 5 periods/wk (Grade 10) 1 Credit

Advanced English 10 will emphasize the study of a diversity of literature from the Victorian age to the Vietnam War, including nonfiction pieces and drama. Most assessment will be done through essay. Additional writing assignments will be narrative/creative/argumentative; both literary analysis and a research paper in MLA format will be included in the course. Students will revise and edit writing using high-level grammatical skills and an advanced stylistic level which will be taught in class. This course is designed for the college-bound student.

Prerequisites: Students must meet two of the three prerequisites that follow: grade of 86% or above in Advanced English 9/grade of 93% or above in general English 9; teacher recommendation; scores of advanced/proficient on related standardized tests.

(Weighted multiplier of 1.04)

The Keystone Exam is given at the end of this course.

### **ENGLISH 11 (127C)**

1 Semesters - 5 periods/wk \_\_\_\_\_ (Grade 11) \_\_\_\_\_ .5 Credit

This course is for CCCTC students who are also taking English at the CCCTC.

English 11 will include all of the tasks required as part of graduation project. A research paper in MLA format is included in the course. Students will review grammatical and stylistic skills; they will apply those skills to writing. This course is designed for students who will either attend some type of post-secondary school or begin to work after graduation.

### **ENGLISH 11 (127)**

2 Semesters - 5 periods/wk \_\_\_\_\_ (Grade 11) \_\_\_\_\_ 1 Credit

English 11 will emphasize the study of American literature from its onset up to and including the 20th century. Writing assignments will be both expository & argumentative. Writing for all purposes will be a focus of this course. A research paper in MLA format is included in the course. Students will review grammatical and stylistic skills; they will apply those skills to writing. This course is designed for students who will either attend some type of post-secondary school or begin to work after graduation.

### **ENGLISH 12 (130C)**

1 Semesters - 5 periods/wk \_\_\_\_\_ (Grade 12) \_\_\_\_\_ .5 Credit

This course is for CCCTC students who are also taking English at the CCCTC.

Writing assignments will be expository/argumentative. A research paper in MLA format is included in the course. Students will review grammatical and stylistic skills and apply those skills to writing. Emphasis will be on media and communication. This course is designed for students who will attend some type of post-secondary school or who will begin to work after graduation.

### **ENGLISH 12 (130)**

2 Semesters - 5 periods/wk \_\_\_\_\_ (Grade 12) \_\_\_\_\_ 1 Credit

Advanced English 12 includes the study of some literature. Writing assignments will be expository/argumentative; both literary analysis and a research paper in MLA format will be included in the course. Students will study high-level grammatical and stylistic skills and apply those skills to writing. Additional emphasis will be on media and communication.

### **ADVANCED ENGLISH COMPOSITION (131E)**

2 Semesters - 5 periods/wk \_\_\_\_\_ (Grades 11-12) \_\_\_\_\_ 1 Credit

This course will emphasize the intense study of English and European literature from its onset up to and including the 20th century. Extensive reading is required. Assessments and exams will be predominantly essay. Additional writing assignments will be expository/argumentative; both literary analysis and a research paper in MLA format will be included in the course. Students will study high-level grammatical and stylistic skills and apply those skills to writing. This course is designed for the college-bound student with a strong background in English.

This course can be taken for Penn Highlands Community College credit.

**Prerequisite:** Students MUST meet three of the four prerequisites. They are as follows: advanced quality of writing - sample assessed by Honors committee, teacher recommendation, grade of 93% or above in previous English courses, advanced/proficient on related standardized tests.  
(Weighted multiplier of 1.08)

### **PUBLIC SPEAKING (113A)**

1 Semesters – 5 periods/wk (Grade 11-12 Elective) \_\_\_\_\_ .5 Credit

This course is developed to assist the students in improving both public speaking and listening skills, which incorporates the necessary communication skills needed in the workforce. Students will identify, acquire, and utilize the fundamentals of public speaking through various activities and speeches including impromptu, demonstrative, persuasive, entertaining, and debate to mention a few. This course is also developed to help prepare students for the various writing assessments they may encounter at the college level including demonstrative, persuasive, reflective, narrative, analysis, and research to mention a few. Also, revision and editing strategies will be provided through grammar mini-lessons to help students improve their own style of writing.

(Weighted multiplier of 1.08)

This course can be taken for Penn Highlands Community College credit.

### **JOURNALISM (110)**

2 Semesters – 5 periods/wk (Grade 11-12 Elective) \_\_\_\_\_ 1 Credit

This class will consist of three areas. The first and most important area is creating and completing the Warrior Yearbook. The second area is photography and photo editing. The third area is yearbook based journalistic writing. The students will be graded on all three areas. Since this is more of a hands-on class, students will have few tests and/or quizzes. They will mainly be graded on the quality and creativity of their work, the amount of effort put into the work, and having work turned in by a given deadline. Work outside of class, including fundraising and advertising, is required. Students wishing to take this class must submit an application which will be available in the guidance office and from the course instructor.

## **LANGUAGE ARTS CURRICULUM – FOREIGN LANGUAGES**

SPANISH I (510) - Elective

2 Semesters - 5 periods/wk (Grades 9-12) \_\_\_\_\_ 1 Credit

Essential Spanish grammar is taught in order to give the student the foundation needed for basic conversation. Much time is spent speaking, listening and reading the language. The Emphasis is placed on oral proficiency. Beginning basic survival vocabulary is taught. Discussion and written assignments for cultural awareness are also part of this course of study.

SPANISH II (511) - Elective

2 Semesters - 5 periods/wk (Grades 10-12) \_\_\_\_\_ 1 Credit

Class time is spent in participating in oral classroom interaction, with intentions to develop more advanced oral skills. A portion of class also concentrates on developing better writing techniques. Activities dealing with listening, reading, and culture are additional areas of study.

**Prerequisite:** *Spanish I*

SPANISH III (512) - Elective

2 Semesters - 5 periods/wk (Grades 11-12) \_\_\_\_\_ 1 Credit

The goals of this class are to further study the Spanish language in a more in-depth manner. Perfecting speaking and pronunciation skills and developing guided and expressive writing skills are a major emphasis in addition to listening and reading skills along with cultural discussions. Much of this course is

taught in Spanish.

**Prerequisite:** *Spanish II*

SPANISH IV (514) - Elective

2 Semesters - 5 periods/wk \_\_\_\_\_ (Grade 12) \_\_\_\_\_ 1 Credit

The majority of this course is taught in Spanish. Focus for this course is on developing more conversational speaking skills involving critical thinking. Students will continue to perfect their knowledge of the language by studying the grammar and vocabulary in a more in depth manner. In addition, students will begin to study Spanish literature. Further activities will be added to enrich the students at this advanced level.

**Prerequisite:** *Spanish III*

**FRENCH I (525) – ONLINE ONLY** \_\_\_\_\_ (Grades 9-12) \_\_\_\_\_ 1 Credit

French I is a comprehensive and engaging introduction to French language and culture. After mastering the French alphabet and numbers, students study French culture, events, and people. By the end of the course, students have a foundation in the study of French, are able to engage in French conversation, and have built a solid foundation for further French language study.

\* Available via Plato Courseware and EdOptions Academy

**FRENCH II (526) – ONLINE ONLY** \_\_\_\_\_ (Grades 10-12) \_\_\_\_\_ 1 Credit

In French II, students continue their virtual tour through France and other French-speaking countries and regions. This second-level French course takes a historical perspective in teaching the language, covering historical events and historical figures. By the end of this course, students have gained a deeper knowledge of and appreciation for the French culture and language.

\* Available via Plato Courseware and EdOptions Academy

**Prerequisite:** French I

## MATH CURRICULUM

*ALGEBRA IB (435)*

2 Semesters - 5 periods/wk \_\_\_\_\_ (Grade 9) \_\_\_\_\_ 1 Credit

The course will involve review and application of sets of numbers, algebraic properties, solving equations, (1<sup>st</sup> degree, 2<sup>nd</sup> degree) solving. Inequalities, systems of equations, factoring, graphing, polynomials, volume and surface area, word problems, percent problems, and rational expressions will be explored and further investigate those concepts introduced in Algebra 1A. The Pennsylvania State Common Core Curriculum will guide the pace throughout the year.

**Prerequisite:** Algebra 1A

The Keystone Exam is given at the end of this course.

GEOMETRY (431)

2 Semesters - 5 periods/wk \_\_\_\_\_ (Grades 9-12) \_\_\_\_\_ 1 Credit

This course introduces the ideas and concepts of geometry through definitions, theorems, and postulates. Geometry maintains the knowledge of algebra and its application to geometry. Teaches logical and deductive thinking to be used to write proofs and solve problems. The course content is established by *Keystone Exams: Geometry Assessment Anchors and Eligible Content*, published by the Pennsylvania Department of Education in January 2013.

*Prerequisite: Algebra IB or teacher recommendation*

ALGEBRA II (421)

2 Semesters - 5 periods/wk \_\_\_\_\_ (Grades 10-12) \_\_\_\_\_ 1 Credit

This course extends the principles and concepts from Algebra 1 to the realm of non-linear functions. In addition to developing numeric and algebraic skills, emphasis will be given to the concepts of modeling, applications, and problem solving. The course content is established by *Keystone Exams: Algebra II Assessment Anchors and Eligible Content*, published by the Pennsylvania Department of Education in January 2013.

**Prerequisite:** *Geometry*

PRE-CALCULUS I (410)

2 Semesters - 5 periods/wk \_\_\_\_\_ (Grade 11 & 12) \_\_\_\_\_ 1 Credit

This course is designed to cover concepts formerly covered in College Algebra and Trigonometry, namely basic right-angle trigonometry, unit circle, trig identities, and extensions of algebra concepts learned in Algebra II.

**Prerequisite:** **Geometry and Algebra II**

(Weighted multiplier of **1.04**)

CALCULUS I (451)

2 Semesters - 5 periods/wk \_\_\_\_\_ (Grade 11 & 12) \_\_\_\_\_ 1 Credit

This is a strenuous course which covers an intense review of college-level algebra, limits, derivatives, and integrals. Students thinking of majors that require Calculus in college should take this.

**Prerequisite:** Pre-Calculus

**This course can be taken for Penn Highlands Community College credit**

(Weighted multiplier of **1.08**)

CONSUMER MATH (411)

2 Semesters - 5 periods/wk \_\_\_\_\_ (Grade 11-CTC students only & Grade 12) \_\_\_\_\_ 1 Credit

This course will prepare them for adult life, including wages and earnings, taxes, savings and checking accounts, consumer loans, credit, and budgeting.

**Prerequisite:** Senior student who has not had calculus.

PROBABILITY AND STATISTICS (417)

2 Semesters – 5 periods/wk \_\_\_\_\_ (Grade 11-12) \_\_\_\_\_ 1 Credit

This course will cover statistical measures, data organization, representation, and analysis, concepts of probability and outcomes, and evaluation inferences and predictions based on data displays.

**Prerequisite:** Geometry & Algebra II

## SCIENCE CURRICULUM

SCIENCE 9 (303)

2 Semesters - 5 periods/wk \_\_\_\_\_ (Grade 9) \_\_\_\_\_ 1 Credit

This course is designed to fulfill the one credit science requirement for ninth grade students. The first semester focuses on introductory physics and earth and space science. The second semester focuses on introductory chemistry, as it relates to biology. Hands-on activities are central to this course and are used to help link the topics to everyday life.

ADVANCED BIOLOGY 9 with LAB (339)

2 Semesters - 5 periods/wk (+ lab period every other day) \_\_\_\_\_ (Grade 9)

### 1.5 Credit

This advanced course will focus on cell structure and function, biochemistry, bioenergetics, homeostasis and transport, cell growth and reproduction, genetics and heredity, DNA structure, ecology and evolution, and classification. The course includes a laboratory biology period, which provides students with a variety of laboratory work to introduce or reinforce biological principles. The laboratory experience will also emphasize the use of laboratory techniques and critical thinking skills.

**Prerequisite:** *Science 8 Grade > 92% and teacher recommendation*

**(Weighted: multiplier of 1.04)**

The Keystone Exam is given at the end of this course.

### BIOLOGY 10 with LAB (338)

2 Semesters - 5 periods/wk (+ lab period every other day)      (Grade 10)      \_\_\_\_\_ 1.5 Credits

This course will focus on life processes, biochemistry, ecology, cell structure and function, DNA structure, genetics and heredity, evolution, and classification. Course includes a biology laboratory period designed to supplement information learned in each chapter and reinforce biological principles.

**Prerequisite:** *Science 9*

The Keystone Exam is given at the end of this course.

### CHEMISTRY I with LAB (307)

2 Semesters - 5 periods/wk (+ lab period every other day)      (Grades 10-12)      \_\_\_\_\_ 1.5 Credits

Chemistry I is a college preparatory course designed for the student intending to enroll in a four-year university/college. The course follows a logical, sequential development of major chemistry principles. The text begins with the "mechanics" of chemistry, the mole concept, stoichiometry, reactions, and the structure of matter. The course includes a laboratory chemistry period, which provides students with a variety of laboratory work and analysis to introduce or reinforce their discovery of chemistry principles. The laboratory experience will also emphasize the use of laboratory techniques and technology to solve scientific problems.

**Prerequisite:** *Biology, Algebra I*

### HONORS CHEMISTRY II (340)

2 Semesters - 5 periods/wk      (Grades 11 & 12)      \_\_\_\_\_ 1.5 Credit

Chemistry II is a college preparatory course designed for the student intending to enroll in a four-year university/college. The semester begins with a deeper exploration of many topics covered in Chemistry I. As the year continues, topics such as thermochemistry, solution chemistry, kinetics, oxidation-reduction, and electrochemistry will be covered. The course is recommended for students who wish to pursue careers in the chemistry, health/medical, and engineering fields.

**This course is available for credits from Penn Highlands College and is a weighted course.**

**Prerequisite:** *Algebra I and Chemistry*

**(Weighted: multiplier of 1.08)**

### ECOLOGY (330)

2 Semesters - 5 periods/wk      (Grades 11 & 12)      \_\_\_\_\_ 1 Credit

This course will focus on the study of the relationships of living things to each other and their environment. Topics include basic principles of ecology, energy flow through the biosphere, cycles of matter, the exploration of various biomes, interactions in ecosystems, ecology of communities, population dynamics, and human impact on the environment.

**Prerequisite:** *Biology*

### HUMAN BIOLOGY (313)

2 Semesters - 5 periods/wk (Grades 11 & 12) 1 Credit

This course focuses on biological topics as they relate to the human organism, including the anatomy and functions of the human body. The course begins with the 6 kingdoms of classification and the evolutionary relationships between organisms in those kingdoms. The course then transitions to animal behaviors, concentrating on mammalian behaviors. The second semester is an overview of the systems of the human body, including the integumentary, skeletal, muscular, cardiovascular, respiratory, nervous, and digestive systems.

EARTH and SPACE SCIENCE (323)

2 Semesters - 5 periods/wk (Grades 11 & 12) 1 Credit

This course includes a study of the stars, planets, and galaxies, as well as earth process, which results in rocks, minerals, earthquakes, and volcanoes. Also discussed are the reading, creating, and navigating by topography.

**Prerequisite:** *Biology*

HONORS PHYSICS I (309)

2 Semesters - 5 periods/wk (+ lab period every other day) (Grade 11 & 12) 1.5 Credit

Physics is an academic course designed for the science oriented, college bound student. In this course, students learn problem-solving skills in the areas of mechanics, energy, thermodynamics, vibrations, and wave motions. Physics I is considered an honors level course and receives a multiplier of 1.08.

**Prerequisites:** *Chemistry, Pre-Calculus*

**(Weighted: multiplier of 1.08)**

HONORS ANATOMY (318)

2 Semesters - 5 periods/wk (Grades 11 & 12) 1 Credit

The course centers on the structure and function of the human body. Mammalian dissection and appropriate laboratory activities are incorporated into the course. This course is recommended for students interested in careers in the medical field. This course is not offered to students that have already completed Human Biology.

**Prerequisite:** *Biology and Chemistry, 93% or above in biology.*

**(Weighted: multiplier of 1.08)**

STEAM Exploration (Science, Technology, Engineering, Arts, & Math) (341)

1 Semester - 5 periods/wk (Grades 9-12) .5 Credit

This course will integrate the STEM fields of science, technology, engineering and mathematics through project-based learning opportunities. Creativity and collaboration will be encouraged as students are challenged to explore real-world issues and propose real-world solutions through hands-on inquiry and open-ended exploration. Students will be required to draw upon their knowledge, collaborate with peers, and apply their own creative process to find solutions to the challenge given. Themed units will focus on Design & Modeling, Data Collection & Analysis, Prototype & Redesign, the Engineering & Design Process.

**Prerequisite: Algebra 1B**

FORENSICS (342)

1 Semester - 5 periods/wk (Grades 11-12) .5 Credit

A crime scene investigator routinely uses science as an aid to solving crimes. The science of analyzing crime scene evidence is called forensic science. This class will explore some of these scientific techniques used in a crime scene investigation. Forensic techniques studied will include document analysis, drug & poison identification, fingerprinting, and DNA fingerprinting, as well as, other analysis techniques.

**Prerequisite: Biology**

**SOCIAL STUDIES CURRICULUM**  
**UNITED STATES HISTORY 9 CURRICULUM**

United States History 9 explores the development of America and the United States from early history when people arrived in North America up through the era of Reconstruction. This course will help students understand the relevance of particular events in history as they affected social, economic, and political aspects of the country. Units include: Colonizing America (Prehistory to 1754), The American Revolution, Creating a Constitution, Federalists and Republicans, Growth and Division, The Spirit of Reform, Manifest Destiny, Sectional Conflict Intensifies, The Civil War, and Reconstruction.

AMERICAN HISTORY 9 (208)

2 Semesters – 5 periods/wk (Grade 9) \_\_\_\_\_ 1 Credit

This is a basic course designed for students looking to meet graduation requirements or who do not want to pursue an emphasis on social studies. The outcome of the course is to promote critical thinking and to teach students how to become better decision-makers. A variety of instructional techniques and assessments will be employed throughout each unit.

ADVANCED AMERICAN HISTORY 9 (220)

2 Semesters – 5 periods/wk (Grade 9) \_\_\_\_\_ 1 Credit

This course is designed for students looking for an academic challenge or for those who have a strong interest in social studies. The course provides a more rigorous and in-depth study of the topics covered. Higher-level thinking skills, including analysis and evaluation, are stressed along with a greater emphasis on reading and writing. A variety of instructional techniques and assessments will be employed throughout each unit. Students wishing to pursue advanced courses in their sophomore year are strongly advised to take this course.

**Prerequisite:** Civics Grade 93% or higher

(Weighted multiplier of 1.04)

**UNITED STATES HISTORY 10 CURRICULUM**

United States History 10 traces the development of social, economic and political factors which affected American history from settling the West to the end of the Second World War. This course helps students understand the relevance of history by showing them how people and events of the past connect to the present. Units include: Western Settlement, Industrialization, Urban America, Becoming a World Power, The Progressive Movement, World War I, The Jazz Age, The Great Depression, The New Deal and World War II.

UNITED STATES HISTORY 10 (214)

2 Semesters – 5 periods/wk (Grade 10) \_\_\_\_\_ 1 Credit

This is a basic course designed for students looking to meet graduation requirements or who do not want to pursue an emphasis on social studies. The outcome of the course is to promote critical thinking and to teach students how to become better decision-makers. The instructor will use a variety of instructional techniques and assessments. Students will also be expected to prepare projects for various units covered throughout the school year.

**Prerequisite:** *United States History 9 or Advanced United States History 9 < 90%*

ADVANCED UNITED STATES HISTORY 10 (219)

2 Semesters – 5 periods/wk (Grade 10) \_\_\_\_\_ 1 Credit

This section is designed for students looking for an academic challenge or those students with a strong interest in social studies. This course provides a more rigorous and in-depth look at the topics covered. The instructor will stress higher-level thinking skills including synthesis, analysis and evaluation of historical events with a greater emphasis on reading and writing. In addition, students will be expected



to prepare projects for various units covered throughout the school year. Students wishing to pursue advanced courses in their junior and senior years are strongly advised to take this course.

**Prerequisite:** *United States History 9 with a grade > 93% or Advanced United States History 9 > 90%*  
(Weighted multiplier of 1.04)

#### WORLD CULTURES (211)

2 Semesters - 5 periods/wk (Grade 11) 1 Credit

The course is a geographical study of different social groups in a chronological setting. Students will study important leaders, historical events, world religions and contributions of societies and their relationships on a global approach.

#### ADVANCED WORLD CULTURES (212)

2 Semesters - 5 periods/wk (Grade 11) 1 Credit

The course is a geographical study of different social groups in a chronological setting. Students will study important leaders, historical events and contributions of societies and their relationships on a global approach.

**Prerequisite:** Advanced United States History Grade > 90% or United States History > 93%  
(Weighted multiplier of 1.04)

#### PSYCHOLOGY (216) – Elective

1 Semester – 5 periods/wk (Grades 10-12 Elective) .5 Credit

Students will be introduced to psychology. They will learn about body and mind, learning and cognition, development, personality, health and adjustment, and social psychology.

### UNITED STATES HISTORY 12 CURRICULUM

Using the end of WWII as its starting point, this course examines the changes America has undergone from 1945 to present. Units may include: The Cold War, Postwar America, The Great Society, The Civil Rights Movement, The Vietnam War, The Politics of Protest, Politics and Economics, Resurgence of Conservatism, A Time of Change, and A New Century Begins.

#### UNITED STATES HISTORY 12 (291) – Required (unless previously passed US I & II course)

2 Semesters – Every other day (Grade 12) .5 Credit

This is a basic course designed for students looking to meet graduation requirements. The outcome of the course is to promote critical thinking and to teach students how to become better decision-makers. The instructor will use a variety of instructional techniques and assessments.

#### SOC - SOCIOLOGY AND YOU (250) - Elective

1 Semester - 5 periods/wk (Grades 9-12) .5 Credit

Sociology is the study of human relationships. It is concerned with how people behave in groups and how group interaction shapes individual behavior. Units of study will include *Introduction to Sociology, Research in Sociology, Culture, Socialization, Social Structure, Deviance and Social Control, Inequalities in Race, Ethnicity and Gender Stratification*. The subject material will be applied to real life situations to enhance the students understanding of sociology at work. The students in this course will prepare projects for a variety of the units of study covered during the course.

#### SOC – INTRODUCTION TO SOCIOLOGY (251) - Elective

2 Semesters - 5 periods/wk (Grades 11-12) 1 Credit

This is a challenging course that is meant to be the equivalent of a freshmen college course. Sociology is the study of human relationships. It is concerned with how people behave in groups and how group interaction shapes individual behavior. This a year-long introductory course that will familiarize the student with the basic principles and theories associated with sociology. It 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. The objective of this course is for the student to be able to understand and apply basic theories and perspectives of an entry-level course. This course is designed to enable students to do so through classroom lectures, critical thinking exercises that require application, an entry-level research paper, utilization of study guides, videos, worldwide web assignments, outside reading and writing assignments. Ample opportunity will be given for students to focus on areas of individual interest. Areas of study: *Perspectives, Theories & Methods, Culture, Socialization, Social Interactions, Groups & Organizations, Deviance, Social Stratification, Gender Stratification, Race & Ethnicity, Family & Religion, and Population, Urbanization & the Environment*

**This course may be taken for Penn Highlands Community College credit**

**Prerequisite:** *Prior History Grade > 93%. Class size may be limited and students are admitted based on previous grades and teacher recommendations.*

**(Weighted multiplier of 1.08)**

PENNSYLVANIA HISTORY (218) – Elective

1 Semester - 5 periods/wk

(Grades 9-12)

.5 Credit

Students will study the founding and development of Pennsylvania. Students will learn how our commonwealth developed government, industry, agriculture, and commerce, to become the great commonwealth we are today.

LAW RELATED EDUCATION (206) - Elective

1 Semester - 5 periods/wk

(Grades 9-12)

.5 Credit

Students will study legal terminology, concepts, and procedures and apply them to real-world situations. The course will focus on the historical development of the American legal system to modern civil and criminal situations. This class is recommended for students who are interested in participating in Teen Court.

CONTEMPORARY POLITICAL ISSUES (207) - Elective

1 Semester - 5 periods/wk

(Grades 10-12)

.5 Credit

Students will develop an awareness of present-day political, social, and cultural difficulties that face the United States and the world by investigating and analyzing present-day issues and events that occur during the course of the semester. Students will make use of class discussions, interpretive accounts of news, assigned readings for debate and discussion, and a mixture of standard tests, short research projects, and other student-oriented assessments. In lieu of textbooks, various other forms of media will be used to gather news and information.

**\*\*This class can be taken two times but not in consecutive semesters.**

UNITED STATES HISTORY I AND II (215) -- Elective

2 Semesters – 5 periods/wk

(Grades 11- 12)

1 Credit

This is a challenging course that is meant to be the equivalent of a freshmen college course. It is a year-long survey of American history for the age of exploration and discovery to the present. The analytical thinking, writing and reading skills that students develop in United States History I and II will equip students for college and lifelong learning. Because this course is similar to a first-year college course, students should expect that the workload would be heavier than most regular high school history courses. Emphasis is placed on critical and evaluative thinking skills, essay writing, interpretation of original documents and historiography.

**This course can be taken for Penn Highlands Community College credit**

**Prerequisite:** *Prior History Grade > 93%. Class size may be limited and students are admitted based on previous grades and teacher recommendations.*

**(Weighted multiplier of 1.08)**

AMERICAN POP CULTURE (253) – Elective

1 Semester – 5 periods/wk

(Grades 9-12)

.5 Credit

This course is an exploration of the 20<sup>th</sup> into the 21<sup>st</sup> centuries through the use of American popular culture. Various themes will be examined for the items that helped shape its respective cultural identity. These include: film and theater, food and drink, music, print media, sports and games, fashion and fads, television, and radio. By doing so, this class will teach us who we are, what we were, and where we are going.

WARRIOR WATCH-CURRENT EVENTS WEBSITE PRODUCTION (293) – Elective

2 Semesters – 5 periods/wk

(Grades 9-12)

1 Credit

The *Warrior Watch* is a fun, hands-on, real-world class dedicated to producing a fully functioning news and information website. It is designed to give students basic understanding of journalism and newspaper writing techniques. Skills taught will be an analysis of current events, writing, editing, interviewing, and photography. If you like to write and take pictures, work with people and tell stories, this class is for you. This class will meet one period a day and is open to students in grades 9-12 who meet the following prerequisites: a 90% English average from the previous year, a recommendation from your English teacher, and an article sample submitted to [warriorwatch@westbranch.org](mailto:warriorwatch@westbranch.org) on any topic of your choice.

INDEPENDENT STUDY – (number is assigned according to the subject area)

The Independent Studies program offers an opportunity for a study of topics not offered in the regular curriculum or fills the gap for a course that the student is unable to schedule. Students, in partnership with a teacher, design a course of study that both fits their interests and meets the standards of a regular elective course. This is done for special circumstances and only in combination of administrative and teacher consent.

## **Online Courses**

Criminology: Inside the Criminal Mind (O002) (grades 9-12) .5 credit

Crime and deviant behavior rank at or near the top of many people's concerns. This course looks at possible explanations for crime from the standpoint of psychological, biological, and sociological perspectives, explore the categories and social consequences of crime, and investigate how the criminal justice system handles not only criminals, but also their crimes. Why do some individuals commit crimes and others do not? What aspects in our culture and society promote crime and deviance? Why are different punishments given for the same crime? What factors shape the criminal case process?

\* Available via Plato Courseware and EdOptions Academy

Personal & Family Finance (O004) (grades 9-12) .5 credit

How do personal financial habits affect students' financial futures? How can they make smart decisions with money in the areas of saving, spending, and investing? This course introduces

students to basic financial habits such as setting financial goals, budgeting, and creating financial plans. Students learn about topics such as taxation, financial institutions, credit, and money management. The course also addresses how occupations and educational choices can influence personal financial planning, and how individuals can protect themselves from identity theft.

\* Available via Plato Courseware and EdOptions Academy

ACT PREP (O005) (grade 11-12) \_\_\_\_\_ .5 credit

The ACT assesses high school students' general educational development and their ability to complete college-level work.

Courses:

ACT English

ACT Mathematics

ACT Reading

ACT Science Reasoning

\* Available via Plato Courseware and EdOptions Academy

SAT PREP (O006) (grade 11-12) \_\_\_\_\_ .5 credit

The SAT assesses academic readiness for college. It keeps pace with what colleges are looking for today, measuring the skills required for success in the 21<sup>st</sup> century.

Courses:

SAT I Language Arts

SAT I Mathematics

\* Available via Plato Courseware and EdOptions Academy

REAL WORLD PARENTING (O007) (grade 9-12) \_\_\_\_\_ .5 credit

What is the best way to care for children and teach them self-confidence and a sense of responsibility? Parenting involves more than having a child and providing food and shelter. Students learn what to prepare for, what to expect, and what vital steps parents can take to create the best environment for their children. Parenting roles and responsibilities, nurturing and protective environments for children, positive parenting strategies, and effective communication in parent/child relationships are other topics covered in this course.

\* Available via Plato Courseware and EdOptions Academy.



### *Career-Technical Courses*

## **Clearfield County Career and Technology Center**

### **2020-2021 Secondary Course Offerings**

**1620 River Road – Clearfield, PA 16830**

**(814)765-5308 – [www.ccctc.edu](http://www.ccctc.edu)**



The Clearfield County Career & Technology Center offers career-oriented, multiyear sequences of courses that integrate core academic knowledge with technical and occupational knowledge to provide students with pathways to postsecondary education and careers. Knowledge is gained through theory lessons, state-of-the-art labs, on-the-job-training, and industry certification obtainment. Our programs of study provide a wide range of learning experiences reaching career clusters in manufacturing, food production, building construction, business, healthcare, hospitality, and transportation.

Education in a career and technical education school offers a lifetime of opportunity and economic stability. Our mission is to train students for the workforce with an education that gives them an opportunity to grow.



#### Participating Public School Districts & Private Schools

- Clearfield Alliance
- Clearfield
- Curwensville
- Moshannon Valley
- Philipsburg-Osceola
- Soaring Heights
- West Branch

The National Technical Honor Society (NTHS) is an organization dedicated to the ideals of honesty, service, leadership, and skill development among America's future workforce. To be considered for membership, students must achieve a 93% GPA in their program area at CCCTC and an 85% GPA at their high school. Prospective members must also have a 95% attendance rate. Students are nominated for NTHS membership by their program instructors. Nominated students who meet the highest standards in each of the identified areas are recommended for induction.



Skills USA is a student organization at CCCTC. With more than 280,000 student and instructor members nation-wide, Skills USA is an applied method of instruction designed to prepare



America's high performance workers in career and technical programs. The organization provides quality education experiences for students in areas including leadership, teamwork, citizenship and character development. Skills USA builds and reinforces self-confidence, work attitudes and communication skills. Members are encouraged to develop into total quality workers and individuals with the highest ethical standards, superior work skills, commitment to life-long education and pride in their work. Skills USA members are also encouraged to support the local community with community service projects. CCCTC Skills USA members compete in their program studies at a district, state, and national level at competitions.



NOCTI is the end-of-the-year skills assessment required to be taken by all program completers. The class of 2015 had a pass rate of 92% and those completers received the Pennsylvania's skills certificate and are eligible for Free Soar College Credits.



Students who enroll at CCCTC in a Program of Study may qualify for several free college credits in their major at participating colleges across Pennsylvania. To qualify for SOAR college credits, students must be enrolled in a program of study and pass their NOCTI exam at the end of the 2 year program



## **Auto Mechanics Technology: CIP Code 47.0604 Year Program**

**2**

The Automotive Mechanics Technology Program prepares students for careers as automotive technicians and service personnel or post-secondary education. The program includes instruction in the automotive engine, automotive engine systems, lubrication, cooling, fuel, exhaust, electrical and electronics systems, and emission systems, drive trains, chassis systems, and auxiliary systems. Students can earn college credits through dual enrollment with Penn College and can earn Soar College Credits. Students can earn the following certifications: NOCTI

Certificate, OSHA Certification, 900 Hours of Instructions Certificate, PA Auto Inspections Certificate, MACS 609A AC Card.



## **Carpentry and Building Construction: CIP Code 46.0201**

**2**

### **Year Program**

The Carpentry and Building Construction Technology Program prepares students for careers in residential and light commercial construction, apprenticeships, or continuing education at a post-secondary institution. The program provides intensive safety training for all hand held and stationary construction power equipment. Areas of instruction include, site selection and building permits, foundations and forms, floor framing, wall framing, roof framing, and roof coverings, exterior finish, insulation and interior finish. Students can earn college credits through dual enrollment with Penn College and can earn Soar College Credits. Students can earn the following certifications: NOCTI Certificate, OSHA Certification, 900 Hours of Instructions Certificate.



## **Collision Repair Technology: CIP Code 47.0603**

**2**

**Year**

### **Program**

The Collision Repair Technology Program provides students with the skills, knowledge, motivation, and work ethic to begin working in entry-level collision repair positions or to continue education at a post-secondary institution. The main components of the program are appropriate use of hand and power tools, welding, minor body repairs, and interior trim and upholstery. Students study major body repairs, glass door service, electrical systems, refinishing, and cost estimating. Students are also instructed on frame equipment, front-end alignment, and computer training. Students can earn college credits through dual enrollment with Penn College and can earn Soar College Credits. Students can earn the following certifications: NOCTI Certificate, OSHA Certification, 900 Hours of Instruction Certificate, PA State Inspection License, ICAR Certification, and ASE Student Certification.

## **Cooperative Education/Diversified Occupations: CIP Code 32.0105**

**1 Year**

**Program** This program is for seniors only. Co-Op/DO combines classroom instruction with workplace experience; the Diversified Occupations program provides a cooperative arrangement

between the school and employers where the student receives general education instruction in the school and on-the-job training through at least 15 hours of employment in business/industry. CAPSTONE: Think of this as the finishing touch to the CCCTC program the student is already

involved in. This experience gives the student the chance to go to work instead of attending CCCTC class. The students “cap off” their inschool training with related job experience at an approved training site. DIVERSIFIED

OCCUPATIONS (D.O.) A training opportunity for a student that is not already attending the CCCTC. This experience gives the student a chance to receive credit toward graduation while working part of the school day. The student gains work experience in a career area that they have an interest in but is not offered at CCCTC. 4 Easy Steps to apply...Step 1. Be employed at a job with at least 15 hours a week. Step 2. Get a Co-Op Enrollment Application from you high school counselor. Step 3. Complete Application. Step 4. Return Application to CCCTC Co-Op Coordinator. Co-Op/Do Applications can occur at ANY time and be added at any time during the senior year. Students can earn the following certifications: NOCTI Certificate, OSHA Certification, and 450 Hours of Instruction Certificate.



### **Cosmetology: CIP Code 12.0401**

### **3 Year ProgramA**

career-

opportunity in cosmetology has endless benefits. You can do anything from working in a salon to owning your own day spa! This fulltime, daytime course prepares you for the PA State Board of Cosmetology exam. Topics included in this course include but are not limited to: Spa Treatments, Color Analysis, Advanced Skin Care, Haircutting and Styling, Permanent Waving, Hair Coloring and Highlighting, Manicures and Pedicures, Scalp Treatments, Hair Straightening, Facials, Safety, and Sanitation and Disinfection. Students can earn seven college credits from Pennsylvania Highlands and can also earn the following certifications: NOCTI Certificate, OSHA Certification, 1250 Hours of Instructions Certificate, and PA Cosmetology License (additional cost).



### **Culinary Arts & Food Management: CIP Code 12.0508 2 Year Program**

The Culinary Arts and Food Management Program prepares students for careers in food production, baking, and restaurant services, or for continuing education at a post-secondary institution. In the production area, instruction is provided on the basics of food preparation including, but not limited to, salads, sandwiches, soups, sauces, meats, and vegetable cookery. In baking, instruction includes breads, cakes, cookies, pies, choux paste and other specialty desserts, and cake decorating. In the restaurant services component, students are taught how to greet, serve, and prepare food for the customer in a restaurant laboratory setting. Emphasis in the second year of the program is placed on safety and sanitation. Students receive classroom theory and laboratory experience using the latest methods and techniques. Students can earn college credits through dual enrollment with Penn College and can earn Soar College Credits. Culinary has a 1:1 articulation agreement with Pittsburgh Technical Institute for 8 college credits. Students can earn the following certifications: NOCTI Certificate, OSHA Certification, 900 Hours of Instructions Certificate, and ServSafe Certification.





## **Diesel Equipment Maintenance: CIP Code 47.0613 Year Program**

**2**

The Diesel Equipment Maintenance and Repair Technology Program prepares students for careers in the diesel field as a mechanic’s helper or for continuing education at a post-secondary institution. The program starts with principles of internal combustion engines and the differences between gas and diesel. Students learn about the electronics, transmissions, differentials, brakes and air systems, and will ultimately overhaul different diesel engines. Students can earn college credits through dual enrollment with Penn College and can earn Soar College Credits. Students can earn the following certifications: NOCTI Certificate, OSHA Certification, 900 Hours of Instructions Certificate, PA Auto Inspection and a Class A and B CDL (additional cost).



## **Digital Media Arts: CIP Code 11.0801**

## **2 Year Program**

Do you want to be the next YouTube star? Interested in photography or graphic design? Want to make TV shows or movies? Build websites with rich multimedia and video content? The Clearfield County CTC’s new Digital Media Arts program prepares students for work in business and entertainment, shooting and editing photographs, making videos and digital marketing material, and creating websites. The Internet is here to stay and advances in technology make digital media skills an ongoing corporate need. Students use Adobe Creative Cloud software including Photoshop, Lightroom, Dreamweaver, After Effects, Premiere Pro, InDesign, and Illustrator. Students also learn to set up and manage websites using content management systems. Students will learn to build, code, and publish web content in a variety of formats. The Digital Media Arts program is a stepping stone to these potential careers: Graphic & Website Designer • Web Application Developer • Software Developer • Videographer • Computer Programmer • Advertising & Promotions Manager • Radio & TV Reporter, Producer & Editor • Public Relations & Marketing Representative • Digital Illustrator & 3D Animator • Film & TV Special Effects Artist • Digital Photographer • Multimedia & Mobile Application Developer • Digital Communications

Specialist. Certifications earned: NOCTI Certificate, OSHA Certification, 900 Hours of Instruction Certificate



## **Drafting and Design: CIP Code 15.1303 and 15.1302 Year Program**

**2**

The Drafting and Design Program prepares students for careers in drafting, architecture, and architectural engineering or continuing education in related fields. The drafting component of the program focuses on computer- aided drafting utilizing the latest version of AutoCAD and Autodesk Revit. Students in the program have the opportunity to draft a complete set of construction drawings. In doing so, students learn approved construction methods. Students also have the opportunity to work on presentation drawings, which allow them to explore their artistic

side through 3D renderings, perspective drawings, sketches, and model building with a 3D printer. The architectural engineering component of the program offers students detailed instruction on many aspects of plumbing systems design, as well as a generalized look at the design and drafting of a building's mechanical systems and electrical layout. Students can earn up to 31 college credits from Pennsylvania Highlands and leave high school with an associate's degree. Students can also earn Soar College Credits. Drafting has a 1:1 articulation agreement with Pittsburgh Technical Institute for 8 college credits. Students can earn the following certifications: NOCTI Certificate, OSHA Certification, and 900 Hours of Instruction Certificate.



**Electrical Occupations: CIP Code 46.0399** **2** **Year**  
**Program**

The Electrical Occupations Program prepares students for careers in the electrical field in the areas of residential, light commercial, and light industrial, or for continuing education at a post-secondary institution. Areas of instruction include use of hand and power tools, basic electron theory, blueprint reading, motor control circuits, tool and electrical safety, using the national electrical code, conduit bending and introduction to programmable logic controls, single phase and 3 phase transformers. Students can earn Soar College Credits. Electrical has a 1:1 articulation agreement with Pittsburgh Technical Institute for 4 college credits. Students can earn the following certifications: NOCTI Certificate, OSHA Certification, 900 Hours of Instruction Certificate, CAT 5 Certification, CTECH-Copper based Network Cabling Certification.



**Health Occupations Technology: CIP Code 51.0899** **2**  
**Year Program**

Health Occupations Technology prepares students for careers in a variety of health occupations by focusing on several components, all of which are necessary for success in any health occupation. Students learn basic patient skills that apply to any health-related occupation. Some of these skills include direct patient care, setting up for an exam, performing some basic laboratory tests, and completing some of the necessary documentation and associated clerical work. Medical terminology, the language of the healthcare world is key to the success of the student and is stressed throughout the program in many applications. Anatomy and Physiology which teach a student how the body is put together and how it functions when it is well and demonstrates what happens when disease sets in are also very important in the program. Students can earn college credits from Pennsylvania Highlands. Students can also earn Soar College Credits. Health Occupations has a 1:1 articulation agreement South Hills School of Business and Technology for Exemption Testing. Health Occupations has a 1:1 articulation agreement with Pittsburgh Technical Institute for 4 college credits. Students can earn the following certifications: NOCTI Certificate, OSHA Certification, 900 Hours of Instruction Certificate, CPR Certification, CompTIA Health Information Technology Certification.



## **Heating, Air Conditioning, Ventilation, Refrigeration: CIP Code 2 Year Program**

HVAC/R will prepare students for an entry-level position as an installer, maintenance, or service technician dealing with aspects of the residential and commercial field. This career area is always growing, has great monetary potential, and will always be in demand. Students will become adept at working with specialty tools, pressure/temperature/electrical meters, metal fabricating devices, torches, refrigerants, and live HVAC/R equipment. Students have the opportunity to earn two industry certifications: Refrigerant Recovery Certification #608 and 410A Safety Certification



## **Information Technology: CIP Code 15.1202 2 Year Program**

The Information Technology prepares students for their first step towards fulfilling an IT career in cloud computing, networking, mobility, security or systems administration and/or continuing education at a post-secondary institution. Students will learn computer maintenance, Security, Networking, Operating Systems, IT Operations, Troubleshooting, and Technical Support. The program takes a broad-spectrum approach to teaching the Information Technology field. Students can earn college credits through dual enrollment with Penn College and can earn Soar College Credits. Information Technology has a 1:1 articulation agreement with Dubois Business College and South Hills School of Business and Technology for Exemption Testing. Students can earn the following certifications: NOCTI Certificate, OSHA Certification, 900 Hours of Instructions Certificate, CompTIA IT Fundamentals, and CompTIA A+ Certification.



## **Masonry: CIP Code 46.0101 2 Year Program**

The Masonry and Building Construction Technology Program prepares students for careers in the masonry construction field, apprenticeships, or post-secondary education. There are two elements to the program. The hands-on component of the program provides instruction on block, brick, stone, glass block, concrete, and plastering along with building walls, chimneys, arches, fire-places, and other structures. The theory component of the program includes mortar, chimneys, foundations, fireplaces, arches, estimating, blueprint reading, and safety. Students will complete individual and group projects, which will include written exercises. Students can earn Soar College Credits. Students can earn the following certifications: NOCTI Certificate, OSHA Certification, and 900 Hours of Instruction Certificate.



## **Metal Engineering Technology: CIP Code 48.0501 2 Year Program**

## Program

The Metal Engineering Technology Program is a competency based program that trains students to operate standard industrial machine and metal working tools in the industry. These include cutters, shapers, milling machines, precision grinders, drill presses and lathes. Students are introduced to tool and die work and the specialized metal working machines, measuring tools, gauges, instruments, blueprints, shop mathematics and all aspects of metal working including basic metallurgy, precision work and quality control. Also being covered is how to utilize a CAD/CAM system such as Mastercam. Areas of instruction: Program safety, bench work, drill press, inspection, blue print reading, precision measuring, lathe, precision grinding, saws, milling machine, CAD/CAM, CNC operation. Certifications earned: NIMS Certification, OSHA Certification, and 900 Hours of instruction certificate. The opportunity to earn a minimum of four National Institute of Metalworking Skills Certifications (NIMS) is available.



### **Welding & Metal Fabrication Technology: CIP Code 48.0508**

**2 Year**

**Program** The Welding Technology Program prepares students for careers in welding, construction, and metal fabrication or continuing education at a post-secondary institution to prepare them to become welding inspectors and even welding engineers. Program topics include safe and proper use of welding equipment, welding symbols, reading detailed welding drawings, base metal preparation, Fundamentals & techniques of shielded metal arc welding (SMAW), oxy-acetylene welding, brazing and cutting, Fundamentals & techniques of gas tungsten arc welding, plasma arc cutting, & quality fundamentals and technical gas metal arc welding. Students can earn college credits through dual enrollment with Penn College and can earn Soar College Credits. Welding has a 1:1 articulation agreement with Pittsburgh Technical Institute for 3 college credits. Students can earn the following certifications: NOCTI Certificate, OSHA Certification, 900 Hours of Instructions Certificate, and AWS 1.1 Certification.



Saint Francis University has paired up with CCCTC to offer a FREE college credits articulation agreement. Any CCCTC student that completes their training at CCCTC will be issued 27 college credits at no cost! Students can then attend Saint Francis University

where they can earn one of three associate degrees: [27] · Associate of Applied Science in Engineering/Mechanical Technology · Associate of Applied Science in Human Resource/Computer Technology · Associate of Applied Science in Health Professions

### **CTC Technical Mathematics**

Associated PIMS # 02153

Local Course Number

MAT 510-Junior Year

MAT 520-Senior Year

Academic Credit

Available- .5 Credits-

Junior Year

.5 Credits- Senior Year

(Could be offered as elective credit for grade 9 and 10 at risk students)

Technical Mathematics courses extend students' proficiency in mathematics, and often apply these skills to technical and/or industrial situations and problems. Technical Mathematics topics may include but are not limited to rational numbers; systems of measurements; tolerances; numerical languages; geometry; algebra; statistics; and using tables, graphs, charts, and other data displays. Technology is integrated as appropriate. This course will be integrated into associated CTC courses and co-taught by the CTC English and Content instructors.

### **CTC Applied English and Communications**

Associated PIMS # 01156

Local Course Number

ENG 510- Junior Year

ENG 520-Senior Year

Academic Credit

Available- .5

Credits- Junior

Year .5 Credits-

Senior Year

(Could be offered as elective credit for grade 9 and 10 at risk or 10<sup>th</sup> grade cosmetology students)

Applied English and Communications courses teach students communication skills—reading, writing, listening, speaking—concentrating on “real-world” applications. These courses usually emphasize the practical application of communication as a business tool—using technical reports and manuals, business letters, resumes, and applications as examples—rather than emphasize language arts skills as applied to scholarly and literary materials. This course will be integrated into associated CTC courses and co-taught by the CTC English and Content instructors.