

WEST BRANCH AREA HS COURSE SELECTION BOOK



2024-2025

FROM THE PRINCIPAL:

Dear West Branch High School Students and Parents:

It is time to select your courses for the 2024-2025 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 counselor is 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,

Brandy F. O'Hare

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GENERAL GUIDELINES 2024-2025

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:

Grade	Credits
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 use another pathway to graduation as provided by Act 158. 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, in accordance with Career Readiness guidelines as outlined by Chapter 339 of the Pennsylvania school code.

Students must earn specific credits in the following areas:

Subject	Credits
English	4
Math	4
Science	4
Social Studies	3.5
Physical Education	2
Arts and Humanities	2
Health	.5
Safety Education	.5
Electives	3.5
Advanced Computer Research	.5
Career Readiness & Personal Finance	.5

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

Academic (multiplied by 1.04)	Honors (multiplied by 1.08)
Advanced American History	Honors Advanced Composition
Advanced U. S. History	Honors Chemistry II
Advanced World Cultures	Honors Physics
Advanced Biology 9	Honors Calculus
Pre-Calculus	Honors Anatomy
	Honors Intro to Sociology
	Honors Public Speaking
	Honors Symphonic Instrumental Music

DUAL ENROLLMENT (with Penn Highlands CC and Mount Aloysius (\$65-\$70 per credit))

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

COURSE OFFERINGS

ART CURRICULUM

INTRO TO ART (603A) – Elective

1 Semester – 5 periods/week Grades 9 – 12 .5 credit

Students will explore art-making techniques and media through drawing, painting, design, critique, and art history with an emphasis on creative problem-solving and personal expression.

3D ART (601A) – Elective (alternating years)

1 Semester – 5 periods/week Grades 9 – 12 .5 credit

Students will expand upon 3D art-making techniques and media through sculpture, crafts, ceramics, critique, and art history with an emphasis on creative problem-solving and personal expression.

2D ART (602A) – Elective (alternating years)

1 Semester – 5 periods/week Grades 9 – 12 .5 credit

Students will expand on 2D art-making techniques through drawing, painting, design, critique, and art history with an emphasis on creative problem solving and personal expression.

ARTS & CRAFTS (611) – Elective (alternating years)

1 Semester – 5 periods/week Grades 9 – 12 .5 credit

Students will focus on functional and decorative projects such as fiber arts (weaving, macrame, embroidery, sewing), functional forms (bowls, cups, etc.), found material projects, and other craft-related processes.

BUSINESS & TECHNOLOGY

ADVANCED 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 spreadsheet charts. Available to the student will be a variety of programs and resources.

ACCOUNTING I (705A) – Elective

1 Semester – 5 periods/week Grades 10 – 12 .5 credit

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

WEB DESIGN (707) - Elective

1 Semester – 5 periods/week Grades 10 – 12 .5 credit

This course will introduce students to the basic concepts of web page design using HTML. Students will build web sites, link web pages, and use exciting and powerful design software. Throughout the course students are introduced to planning and designing effective web pages, implementing web pages by writing HTML code. Students will be required to use page layout techniques, graphics, text formatting, multimedia, and images. No prior experience with coding or HTML is required to take this course.

PHYSICAL EDUCATION, HEALTH, AND SAFETY EDUCATION

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

1 Semesters – 5 periods/week Grades 9 – 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/week 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.

WEIGHTLIFTING (898)

1 Semester- 5 periods/week Grades 9-12 .5 credit

Reinforces the proper guidelines, principles and techniques of weightlifting, and the development of muscular strength, endurance, and power at an advanced level.

HEALTH 11 (964) – Required

1 Semester – 5 periods/week 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

1 Semester – 5 periods/week 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.

DYNAMIC PHYS. ED. (971) – Elective

1 Semester – 5 Grades 10 - 12 .5 credit
periods/week

Dynamic Physical Education places an emphasis on Athletic Skill Development, Physical Fitness, Competitive Game Play, and Strength Training. This course is for individuals who are interested in a more competitive, engaging, and challenging class outside of their regular Physical Education class. Activities will be competitive, with fitness components based on the National Fitness Standards. The curriculum will allow students to increase strength, power, speed, and agility needed to be competitive in sports.

NUTRITION & WELLNESS – {965A) - Elective

1 Semester – 5 periods/week Grades 9 – 12 .5 credit

To keep our body and our mind running like finely tuned machines, we need to use the right fuel. For humans, that means nourishing our bodies with the right foods. In this course, you'll explore how food affects essential aspects of your life from your weight to how you age to how well you think. You'll also examine how outside influences- family, peers, and the media- can affect your diet and your perception of food and how to set yourself up for nutritional success.

TECHNOLOGY

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/week 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/week 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 (810) – Elective

1 Semester – 5 periods/week 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.

FORESTRY & SUSTAINABILITY (811) – Elective

1 Semester – 5 periods/week Grades 11 - 12 .5 credit

Sustainable and environmentally friendly class that teaches students about tree species, sustainability, tree aging, forest harvesting techniques, board feet calculations, dimensional lumber, and sawmills. In addition, students will review occupations, lumberjack history, forest products, tree structure and growth, tree identification, tree measurement, silviculture, and chainsaw use and safety. Students will create forestry plans that create sustainable growth and understand harvesting techniques to fell trees and mill them into dimensional lumber.

ROBOTICS I (820) – Elective

1 Semester – 5 periods/week

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 (821) – Elective

1 Semester – 5 periods/week

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 robots to solve specific challenges using the ROBTC 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

TECHNOLOGY HELP DESK APPRENTICESHIP (710) - Elective

1 Semester – 5 periods/week

Grades 9 – 12

.5 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 and staff. 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 to Microsoft IT Academy. Where they will be required to complete one course.

INSTRUMENTAL MUSIC / CHORUS

SENIOR HIGH INSTRUMENTAL MUSIC (605) – Elective

2 Semesters – 5 periods/week

Grades 9 – 12

1 credit

This course provides an advanced musical experience for students, with opportunities for performance both within and outside of the classroom. Students will explore basic music theory, history, and composition based upon their current individual level of achievement in band. The high school concert band will perform several times throughout the school year within the school district and surrounding communities. This class is also subject to travel and additional projects, including guest speakers/performances, masterclasses, workshops, and the like. Students enrolled in this ensemble may be required to commit time outside of normal school hours to participate in such events. Co-curricular ensembles (marching and honors band) are not required parts of the course but are strongly advised, as students who participate in these ensembles receive additional opportunities that reduce the complexity of the normal classroom workload. The culmination of this class is at least two public concerts per year.

SENIOR HIGH HONORS SYMPHONIC BAND (618) – Elective

2 Semesters – 5 periods/week Grades 10 – 12 1 credit

This is an honors course within the high school instrumental curriculum, which can be taken in place of Senior High Instrumental Music for students who want a more challenging experience. This course is scheduled in tandem with Senior High Instrumental Music. In addition to the requirements of the concert band track (see these requirements above), Symphonic Band students are obligated to fulfill the following ensemble requirements: Marching Band - graded in the first and fourth quarters. All rehearsals/performances from August-May are required. Honors/PMEA Festivals- graded in the second and third quarters. Students are expected to prepare and participate in county and district/PMEA level auditions. Students are expected to meet and prepare for auditions with the director. Students will need to meet the minimum required audition scores for it to be considered “successful.” It is also expected for students to advance through the festival circuit, if given the opportunity. Symphonic band students will be required to participate in literature, composer, and recording projects to enhance their understanding, preparation, and execution of concert band literature. (Weighted multiplier of 1.08)

SENIOR HIGH CHORUS (607) – Elective

2 Semesters – Every other day Grades 9 – 12 .5 credit

This is an advanced music course, with an emphasis on vocal performance and choral singing. Students will increase their awareness of all aspects of choral singing, including methods to provide a strong tonally acceptable choral ensemble, and the technique of polyphonic singing while a choral ensemble. Students will be expected to perform in at least two public concerts per school year as part of their mid-term and final evaluations. Each student will be evaluated on his or her individual performance level.

GUITAR (610) – Elective

1 Semester – 5 periods/week Grades 9 – 12 .5 credit

This semester elective course is designed for the beginning guitar student. The course is taught in a group setting with individual responsibilities. Focus will be on the application of beginning techniques, such as: guitar set up/tuning, notation (including standard, chords, and tablature), and performing techniques. Students will also develop an understanding of musical fundamentals, theory, and various styles of guitar-playing in regards to genre and style (classical, rock, jazz, etc.). Students with experience are welcome to take this course and design an individual advancement track with the instructor.

MUSIC IN FILM (624) – Elective

1 Semester – 5 periods/week Grades 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.

CONTEMPORARY LITERATURE (146) – ELA

1 Semester – 5 periods/week Grades 11 – 12 .5 credit

Contemporary Literature will focus on high-interest young adult (YA) novels written in the past 30 years. Students will be able to compare and contrast themes, analyze text and illustrations, and make connections among the various types of texts. The course will predominantly use novels supplemented with short fiction, poetry, and some nonfiction. Student choice, literary circles, and reading groups will be a strong component of the class. Students will be evaluated on their ability to discuss, analyze, and communicate the themes and ideas of the novels.

FILM STUDY AND ANALYSIS (147) – ELA

1 Semester – 5 periods/week Grades 11 – 12 .5 credit

Students will view film as literature, learn terminology, cinematography history and techniques, how to write reviews, and film analysis all while watching films and documentaries across several genres. This course will be writing intensive as students will produce a formal written review for each film watched and a culminating analysis paper on film study.

PUBLIC SPEAKING (113A) – Elective

1 Semester – 5 periods/week Grades 11 – 12 .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 is available for credits from Penn Highlands College and is a weighted course.

JOURNALISM (110A) – ELA

1 Semester – 5 periods/week Grades 11 – 12 .5 credit

Journalism consists of three areas: journalism and broadcasting, photography, and graphic design. Students will learn the style of journalistic writing while contributing to the digital school newspaper (Warrior Watch). Students will also learn to write broadcast scripts while contributing to WBTV. The class will offer a variety of assignments and will be structured around student-choice. Students can learn photography, broadcasting, technology, and graphic design skills through different mediums of journalism (broadcast=WBTV, print=Warrior Watch and Warrior Yearbook).

JOURNALISM II (112) - ELA

1 Semester – 5 periods/week Grades 11 – 12 .5 credit

Journalism II expands upon the three areas of Journalism I: journalism and broadcasting, photography, and graphic design. Students in this course will continue to produce and create material for Warrior Watch and WBTV but will also take on editing and leadership roles. In addition, students in Journalism II will learn the back end of Warrior Watch through the publishing software SNO.

Prerequisite: Completion of Journalism I and with a grade no lower than an 86%.

INTRODUCTION TO DRAMA/THEATRE (144) – ELA

1 Semester – 5 periods/week Grades 11 – 12 .5 credit

Introduction to Drama/Theatre is a course designed to strengthen and enhance skills in various aspects of acting including development of imaginative skills, movement, voice, ensemble work/teamwork, scene analysis, character development and emotional truth, improvisational, performance and audition skills. Students in this course are strongly encouraged to take part in the school's theatrical productions. Students will also read and analyze dramatic literary works.

YOUNG ADULT LITERATURE (117) - ELA

1 Semester - 5 periods/week Grades 11 - 12 .5 credit

Young Adult Literature will focus on high-interest young adult (YA) novels written in the past 30 years. Students will be able to compare and contrast themes, analyze text and illustrations, and make connections among the various types of texts. Each course will predominantly use novels supplemented with short fiction, poetry, and some nonfiction. Student choice, literary circles, and reading groups will be a strong component of the class. Students will be evaluated on their ability to discuss, analyze, and communicate the themes and ideas of the novel.

FOREIGN LANGUAGES**SPANISH I (510) – Elective**

2 Semesters – 5 periods/week 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/week Grades 10 – 12 1 credit

Class time is spent 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/week 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 (513) – Elective

2 Semesters – 5 periods/week

Grades 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*

Other foreign languages are available through the West Branch Virtual Academy. Please see the guidance office for course descriptions.

MATHEMATICS

ALGEBRA IA (434)

2 Semesters - 5 periods/week

Grade 9

1 Credit

This course is designed to introduce, build, and develop fundamental algebraic skills necessary for higher level mathematics courses. The course will focus on sets of numbers, algebraic properties, concepts of rates of change, solving equations (1st degree), and evaluation of algebraic expressions. Inequalities, systems of equations, graphing, polynomials, volume and surface area, word problems, percentage problems, and rational expressions will be introduced, and students will build skills to apply these concepts. The Pennsylvania State Common Core Curriculum will guide the pace throughout the year.

ALGEBRA IB (435)

2 Semesters – 5 periods/week

Grades 9

1 credit

The course will involve review and application of sets of numbers, algebraic properties, solving equations, (1st degree, 2nd 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 or recommendation from 8th grade math teacher.

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

GEOMETRY (431)

2 Semesters – 5 periods/week

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 II or teacher recommendation

ALGEBRA II (421)

2 Semesters – 5 periods/week	Grades 10 – 12	1 credit
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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: Algebra IB

PRE-CALCULUS (410)

2 Semesters – 5 periods/week	Grades 11 – 12	1 credit
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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/week	Grades 11 – 12	1 credit
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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 should take this.

Prerequisite: Pre-Calculus
(Weighted multiplier of 1.08)

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

CONSUMER MATH (411)

2 Semesters – 5 periods/week	Grades 11 (CTC only) & 12	1 credit
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This course will prepare students for adult life, including wages and earnings, taxes, savings and checking accounts, consumer loans, credit, and budgeting.

PROBABILITY AND STATISTICS (417)

2 Semesters – 5 periods/week	Grades 11 – 12	1 credit
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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 and Algebra II

SCIENCE**SCIENCE 9 (303)**

2 Semesters – 5 periods/week	Grades 9	1 credit
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Science 9 is designed as an option to fulfill the one credit science requirements for ninth grade students. The first semester focuses on introductory chemistry and how it relates to biology concepts. The second semester focuses on earth science, and how it relates to biology concepts. 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/week + lab period every other day Grades 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% , teacher recommendation, and advanced score of the science PSSA.

(Weighted: multiplier of 1.04)

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

BIOLOGY 10 (304)

2 Semesters – 5 periods/week Grades 10 1.0 credit

This course will focus on life processes, biochemistry, ecology, cell structure and function, DNA structure, genetics and heredity, evolution, and classification. Course incorporates hands-on laboratory investigations as a part of instruction. These activities 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/week + lab period every other day Grades 10 – 12 1.5 credit

This course follows a logical, sequential development of chemistry principles. The course begins with the “mechanics” of chemistry (structure & properties of matter), bonding, the mole concept, stoichiometry, reactions. 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. Chemistry I is designed to fulfill the science credit requirement during the academic year following Biology. This course will also focus on development of skills for students intending to enroll in a post-secondary programs/college.

Prerequisite: Biology, Algebra I

HONORS CHEMISTRY II (340)

2 Semesters – 5 periods/week + lab period every other day Grades 11 – 12 1.5 credit

Chemistry II is a further exploration and deeper dive into chemistry principles. This course may be taken for dual-enrollment credit or without dual enrollment credit. The semester begins with a deeper exploration of many topics covered in Chemistry I. As the year continues, further topics will be explored (e.g., solution chemistry, acid-based chemistry, nuclear chemistry, and thermochemistry). The course is recommended for students who wish to pursue careers in the chemistry, health/medical, scientific, and engineering fields. It is also designed for students who do not wish to pursue the sciences but wish to acquire (science) college credits prior to entering college.

This course is available for dual enrollment through Penn Highlands College (4 credits) and is a weighted course. (Weighted: multiplier of 1.08) Prerequisite: Algebra I and Chemistry (Weighted: multiplier of 1.08)

ECOLOGY (330)

2 Semesters- 5 periods/week 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. These principles are applied to Pennsylvania ecology specifically.

Prerequisite: Biology

HUMAN BIOLOGY (313)

2 Semesters- 5 periods/week 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, as well as the origin of human, and human genetics.

Prerequisite: Biology

EARTH AND SPACE SCIENCE (323)

2 Semesters- 5 periods/week 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. The reading, creating, and navigating by topography are embedded in the course material. Discussion of the processes that impact the movement of materials in the oceans and atmosphere are discussed. Also, factors which impact the climate and weather patterns on Earth are discussed at length.

Prerequisite: Biology

HONORS PHYSICS (309)

2 Semesters – 5 periods/week Grades 11 – 12 1 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/week Grades 11 – 12 1 credit

Honors Anatomy is the study of the structure and function of the human body, with emphasis on the major body systems and the way the body systems work together to provide homeostasis, as well as homeostatic imbalances affecting the systems. Laboratory experiences and 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 who have already completed Human Biology.

Prerequisite: Biology and Chemistry, 93% or above in Biology. (Weighted: multiplier of 1.08)

FORENSIC SCIENCE (342)

1 Semesters 5 periods/week 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

WILDLIFE BIOLOGY (345) - Elective

1 Semesters 5 periods/week Grades 11 – 12 .5 credit

This course is designed to teach students the basics in the field of wildlife biology culminating in a focus on PA birds, reptiles, and mammals. Topics will include wildlife classification, evolution, ecology, development, and identification. Ornithology will include sections on bird songs, mating rituals, nesting behavior, and migratory behavior. Mammalogy will have sections focusing on mammal track identification, behavior, and interactions with domesticated animals. Herpetology will look at the roles of amphibians and reptiles in various ecosystems and identification of common PA species.
Prerequisite: Biology

AQUATIC BIOLOGY (346) - Elective

1 Semesters 5 periods/week Grades 11 – 12 .5 credit

This course is designed to teach students the basics in the field of aquatic biology culminating in a focus on PA macroinvertebrates, aquatic plants, fish, and aquatic amphibians. Topics will include classification, evolution, ecology, development, and identification of aquatic species. Ichthyology will include sections on fish identification, food chains, food webs and bioaccumulation. Entomology will focus on insect life cycles and development and how they impact food webs and chains. Aquatic botany will center on life cycles and development of aquatic plants as well as their role in ecosystems. This course can possibly be paired with the PA Fish and Boat Commissions "Trout in the Classroom" program.

SOCIAL STUDIES**AMERICAN HISTORY 9 (208)**

2 Semesters 5 periods/week Grades 9 1 credit

American 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. 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/week

Grades 9

1 credit

American 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. 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 (214)

2 Semesters 5 periods/week

Grades 10

1 credit

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. 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%*

WORLD CULTURES (211)

2 Semesters 5 periods/week

Grades 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/week

Grades 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)

ADVANCED UNITED STATES HISTORY 10 (219)

2 Semesters 5 periods/week Grades 10 1 credit

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. 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)

UNITED STATES HISTORY 12 (291) – Required, unless student already passed US I & II course

2 Semesters (every other day) Grades 12 1 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.

PSYCHOLOGY (216) – Elective

1 Semester – 5 periods/week Grades 10 – 12 .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.

LAW RELATED EDUCATION (206) – Elective

1 Semester – 5 periods/week 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.

SOCIOLOGY AND YOU (250) – Elective

1 Semester – 5 periods/week Grades 9 – 10 .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.

INTRODUCTION TO SOCIOLOGY (251) – Elective

2 Semesters 5 periods/week

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. Daily participation in class discussion is required. 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*

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)

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

PENNSYLVANIA HISTORY (218) – Elective

1 Semester – 5 periods/week

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.

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, explores the categories and social consequences of crime, and investigates 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?

CURRENT ISSUES (207) – Elective

1 Semester – 5 periods/week

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.**

AMERICAN POP CULTURE (253) – Elective

1 Semester – 5 periods/week Grades 9 – 12 .5 credit

This course is an exploration of the 20th into the 21st 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.

EGYPTOLOGY: The History of Ancient Egypt (253) – Elective

1 Semester – 5 periods/week Grades 9 – 12 .5 credit

Embark on a captivating journey spanning over 30 centuries, exploring the rich tapestry of Ancient Egypt's history under the Pharaohs. This half-year course delves deep into the myths, legends, gods, pharaohs, queens, and everyday life of this fascinating civilization. Rather than a mere chronological narrative, students will immerse themselves in the cultural, religious, and societal aspects that shaped Ancient Egypt.

UNITED STATES HISTORY I AND II (215) – Elective

2 Semesters – 5 periods/week 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.

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)

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

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

1 or 2 Semesters Grades 9 – 12 .5 or 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 a 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 on any topic of your choice.

ONLINE COURSES

SAT PREP (O006)

Grades 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 21st century.

Courses:

SAT I Language Arts

SAT I Mathematics

* Available via Plato Courseware and EdOptions Academy

REAL WORLD PARENTING (O007)

Grades 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.

CLEARFIELD COUNTY CAREER AND TECHNOLOGY CENTER

INTRODUCTION

The Clearfield County Career and Technology Center offers career-oriented, multiyear sequences of courses that integrate core academic knowledge with technical and occupational knowledge to provide the 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 SCHOOLS

Clearfield Alliance
Moshannon Valley

Clearfield Area
Philipsburg-Osceola
West Branch

Curwensville
Soaring Heights

ORGANIZATIONS

NTHS (National Technical Honor Society)

The 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

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 educational 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 (National Occupational Competency Testing Institute)

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.

SOAR (Students Occupationally and Academically Ready)

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 two (2) year program.

PROGRAMS OF STUDY

Auto Mechanics Technology

CIP Code 47.0604

2-year program

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 handheld 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, 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
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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 in-school 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 your 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 program
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A career opportunity in cosmetology has endless benefits. You can do anything from working in a salon to owning your own day spa! This full-time, 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
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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

2-year program

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 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 10.9999

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 steppingstone 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

2-year program

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 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 program 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, fireplaces, 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.

Welding and 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, and 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.
