

**NORRISTOWN AREA
HIGH SCHOOL**



**PROGRAM of STUDIES
2022 - 2023**

PROGRAM OF STUDIES

NORRISTOWN AREA HIGH SCHOOL

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FORWARD

The NAHS Program of Studies is designed to help students and parents/guardians choose, follow, and complete a path to graduation that will prepare students for success beyond high school. This document provides general information, including the policies, procedures and requirements of the Norristown Area School District and NAHS, and includes descriptions of all of our course offerings.

Our mission is to maintain high expectations for all of our students. Together as teachers, staff members, and administrators, we strive to consistently improve our instructional practices in order to support student success. We encourage students, parents, and guardians to become familiar with the contents of the Program of Studies that will be supporting the successful educational environment at NAHS.

All courses are college preparatory because we believe that it is our responsibility to provide all students with the opportunity to go to college. There is a Weighted Honors option for many of our core courses. There are also a variety of Advanced Placement offerings in order to enable students to earn college credit while in high school.

All NAHS students and their parents/guardians, have access to a variety of support services to assist them with this course selection process. Our Guidance Office and College and Career Center services are described in detail in our student handbook, *The N Book*, which all students receive at the beginning of each school year.

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GENERAL INFORMATION

GENERAL INFORMATION

Subject Level Placement

In many of our required courses, students are placed at various instructional levels by the professional staff. These decisions are based on the individual needs of students, their ability, and past achievement in each subject area. We encourage students to work to their maximum potential. Parents are encouraged to contact the present subject area teacher should there be a question about their student's subject level placement. Parents can override that placement by contacting a counselor.

Program Registration and Alteration

During the registration period for the next year's courses, each student and parent should carefully review and select subjects that will comprise the next school year's program. Teachers and counselors are available for advice and assistance. Once courses have been selected and submitted to the Guidance Counselor, the program becomes a contract for the next year. Every effort will be made to offer the program as selected by the student and parent; however, certain courses may be canceled due to inadequate enrollment, and others may not be available because of an irresolvable conflict in course availability due to staffing. Student selections must be done carefully at the appropriate time as outlined above. Most students should have no changes after the original course selection in the spring. After school begins in the fall, schedule changes will be made only to correct an error or to accommodate scheduling demands of the building.

Advanced Placement (AP) Opportunities

Advanced Placement courses are designed to expose students to college-level coursework and activities including intense discussions, collaborative problem solving, and challenging persuasive writing assignments. Students enrolling in an AP course must be committed to dedicating time outside of class to reading and writing assignments. **All students enrolled in the course are required to take the AP exam in the spring.** Scores of 3, 4, or 5 on these exams may translate into college credit at recognized institutions of higher learning. **Once a student has opted into an Advanced Placement or Weighted Honors course, a change to a different course will not be made if course is on student requests form.**

GRADUATION REQUIREMENTS

Norristown Area School District and the State of Pennsylvania mandate a combination of requirements for graduation:

In order to graduate from a public high school in Pennsylvania, a student must meet specific requirements established by the Local Education Agency (Norristown Area School District) in which they are enrolled. These local requirements include graduation requirements mandated by the Commonwealth to guarantee that a Pennsylvania diploma reflects the knowledge and skills that our graduating students need to be successful in college and the workplace in an increasingly complex and challenging economy.

In addition to the Local Education Agency’s graduation requirements, students must complete one of the state’s graduation pathways.

Norristown Area School District Course Requirements –

<u>Discipline Area</u>	<u>Courses</u>
English I, II, III, IV	4 credits
Math/Science Algebra 1, Geometry, math elective Biology, Chemistry, science elective Choice of science or math elective	7 credits
Social Studies Classes 2023-2025: US History, Civics & Government, Soc. Stud. elective beginning with the Class of 2026: World Cultures, US History, Civics & Government	3 credits
Wellness	1 credit
Electives	8 credits

Remediation

Students who do not demonstrate proficiency in any required course by passing the course, or fail to earn the prescribed number of credits for grade promotion or graduation will be required to recover the missing credits.

Promotion Requirements

Minimum Credits Required	to Enter Grade
5.0	10
11.0	11
17.0	12
23.0	to Graduate



Pennsylvania Department of Education - Keystone Exams and Graduation Pathways

In addition to the 23 credits required by the Norristown Area School District to graduate from high school, the Commonwealth of Pennsylvania has enacted new requirements for graduation starting with the Class of 2023. These requirements provide for five different pathways to graduation. Students must successfully meet the requirements of one of the five pathways outlined below. For more information please visit <https://www.education.pa.gov>. These pathways are as follows:

Act 158: Graduation Pathways

PATHWAY 1 - KEYSTONE PROFICIENCY

In addition to completing the required 23 course credits as outlined in the Program of Studies, students must score proficient or advanced on all three Keystone Exams prior to the end of eleventh grade. These exams are given in Algebra, Biology, and Literature.

PATHWAY 2 - KEYSTONE COMPOSITE SCORE

In addition to completing the required 23 course credits as outlined in the Program of Studies, students must score proficient or advanced on at least one Keystone Exam, and no lower than basic on the other two while earning a composite score of 4452 (meaning all three scores added together must equal 4452 or higher). Proficiency requires a score of 1500. A student who scored exactly 1500 on one Keystone Exam would need to average 1476 on the other two Keystone Exams, with neither score being below basic.

PATHWAY 3 - ALTERNATE ASSESSMENT

In addition to completing the required 23 course credits as outlined in the Program of Studies, students must do one of the following:

- Score 1010 or higher on the SAT (not including the writing section)
- Score 970 or above on the PSAT
- Score 21 or above on the ACT
- Attain the minimum score required by any branch of the military on the ASVAB
- Score a 3 or higher on an Advanced Placement Exam that is related to the subject of EACH Keystone Exam for which the student did not score proficient or advanced
- Successfully complete a Dual Enrollment course that is related to the subject of EACH Keystone Exam for which the student did not score proficient or advanced
- Successfully complete a pre-apprenticeship program
- Earn acceptance to an accredited four-year nonprofit postsecondary institution AND have evidence of the ability to enroll in college-level coursework (non-remedial)

ADDITIONAL PATHWAYS AND MORE INFORMATION CAN BE FOUND ON THE BACK OF THIS DOCUMENT

PATHWAY 4 - EVIDENCE BASED

In addition to completing the required 23 course credits as outlined in the Program of Studies, students must have evidence of one Category One option and two Category Two options as listed below:

Category One (must have one)

- A score of 630 or above on an SAT Subject Test
- A score of 3 or higher on an AP Exam
- Acceptance to any accredited nonprofit post-secondary institution and evidence of the ability to enroll in college-level work
- Attainment of an industry-recognized credential
- Successful completion of a Dual Enrollment or postsecondary course

Category Two (must have two)

- Additional items from Category One
- Completing a service-learning project
- Scoring proficient or advanced on a Keystone Exam
- A letter guaranteeing full-time employment
- Successful completion of an internship or cooperative education program
- Meeting the NCAA Clearinghouse requirements, including a 2.0 GPA

PATHWAY 5 - CAREER AND TECHNICAL EDUCATION

In addition to completing the required 23 course credits as outlined in the Program of Studies, students must do one of the following:

- Attain an industry-based competency certification related to the student's CTE program
- Demonstrate a high likelihood of success on an approved industry-based competency assessment
- Demonstrate readiness for continued meaningful engagement in the area of the CTE program of study

The Pennsylvania Department of Education allows for students with disabilities to earn a diploma upon successful completion of their Individualized Education Plan (IEP) if the IEP team demonstrates and documents that the pathways listed above are outside of the scope of the student's IEP.

Transfer Credits

Because of the variety of high school schedule models currently in existence (e.g., traditional, 4X4, A/B), transfer credits present a unique challenge. During the registration/scheduling process, counselors will review an incoming student's transfer credits and provide a detailed path to graduation. Every effort will be made to align transfer credits with the NAHS Program of Studies. However, in order to receive an NAHS diploma, students must meet the NAHS requirements as outlined in this document, particularly with regard to the requirements for English, Math, Science, Social Studies, and Physical Education.

Students who transfer to our school at the end of a complete school year are most easily accommodated. Students who transfer during the school year without a significant interval between the time they left their previous school and the time they enroll here are generally able to attain a path to graduation with their class. However, students, parents, and guardians should be aware that a transfer occurring after a significant interval between the time students left their previous school and the time they enroll here are subject to receiving partial credit that will require some form of remediation in order to graduate with their class.

Middle School Math Credits

Students who successfully complete a high school math course (i.e. Algebra I and/or Geometry), will receive high school credit for that course(s). Please note, the grade earned will not be calculated into students high school grade average (GPA) and the student will still need to successfully complete 3 or 4 additional math credits as outlined in the graduation requirements.

College-Bound Athletes



Students should be aware that the National Collegiate Athletic Association (NCAA) maintains strict criteria for the college admission of athletes. All courses marked by the NCAA logo represent courses that meet the requirements to be considered an approved core course for the NCAA Eligibility Center. Please consult with your counselor and athletic coach concerning these requirements and how they affect your acceptance to the college of your choice. The link for more information is <https://web3.ncaa.org/ecwr3/>.

Course Prerequisites

Many courses, especially Advanced Placement or Weighted Honors courses, have prerequisites listed in the Program of Studies.

Course Requests

If there are not a minimum of 15 requests for a course, there is a strong probability that the course will not be offered.

Withdrawing from a Class After the School Year Starts

With mutual agreement between the student, parent, counselor, and administrator, a course may be dropped from a student's schedule once the school year begins. Any such drop after the second week of the semester will result in a withdraw grade being permanently recorded on the students transcript. If a student's grade in the class from which they are withdrawing is failing at the time of the withdrawal, the student will receive a WF (Withdrawn/Fail) from the course. In calculating the grade point average, withdrawal failing will be considered an attempted credit and withdrawal passing

will not be considered as an attempted credit. **Once a student has opted into an Advanced Placement or Weighted Honors course, a change to a different course will NOT be made if course is on student's request form.**

GRADE POINT AVERAGE (GPA) CALCULATION

Grade Point Average is used to determine class rank within each grade. Class rank is used as an academic descriptor for college admissions and employers. Class rank, grades, and other achievement factors are used by the faculty to select academic honors and awards at graduation. Class rank and GPA are posted on students' transcript and can be found on the Home Access Center (HAC).

Grade Scale

Grade	Scale	Academic	Honors	AP
A+	97 to 100%	4.33	4.83	5.33
A	93 to 96%	4.00	4.50	5.00
A-	90 to 92%	3.67	4.17	4.67
B+	87 to 89%	3.33	3.83	4.33
B	83 to 86%	3.00	3.50	4.00
B-	80 to 82%	2.67	3.17	3.67
C+	77 to 79%	2.33	2.83	3.33
C	73 to 76%	2.00	2.50	3.00
C-	70 to 72%	1.67	2.17	2.67
D+	67 to 69%	1.33	1.83	2.33
D	63 to 66%	1.00	1.50	2.00
D-	60 to 62%	0.50	1.00	1.50
F	59% and Below	0.00	0.00	0.00
WP	Withdrawal Pass (no credit given)	0.00	0.00	0.00
WF	Withdrawal Fall	0.00	0.00	0.00

GPA will be calculated total of quality points divided by earned credits.

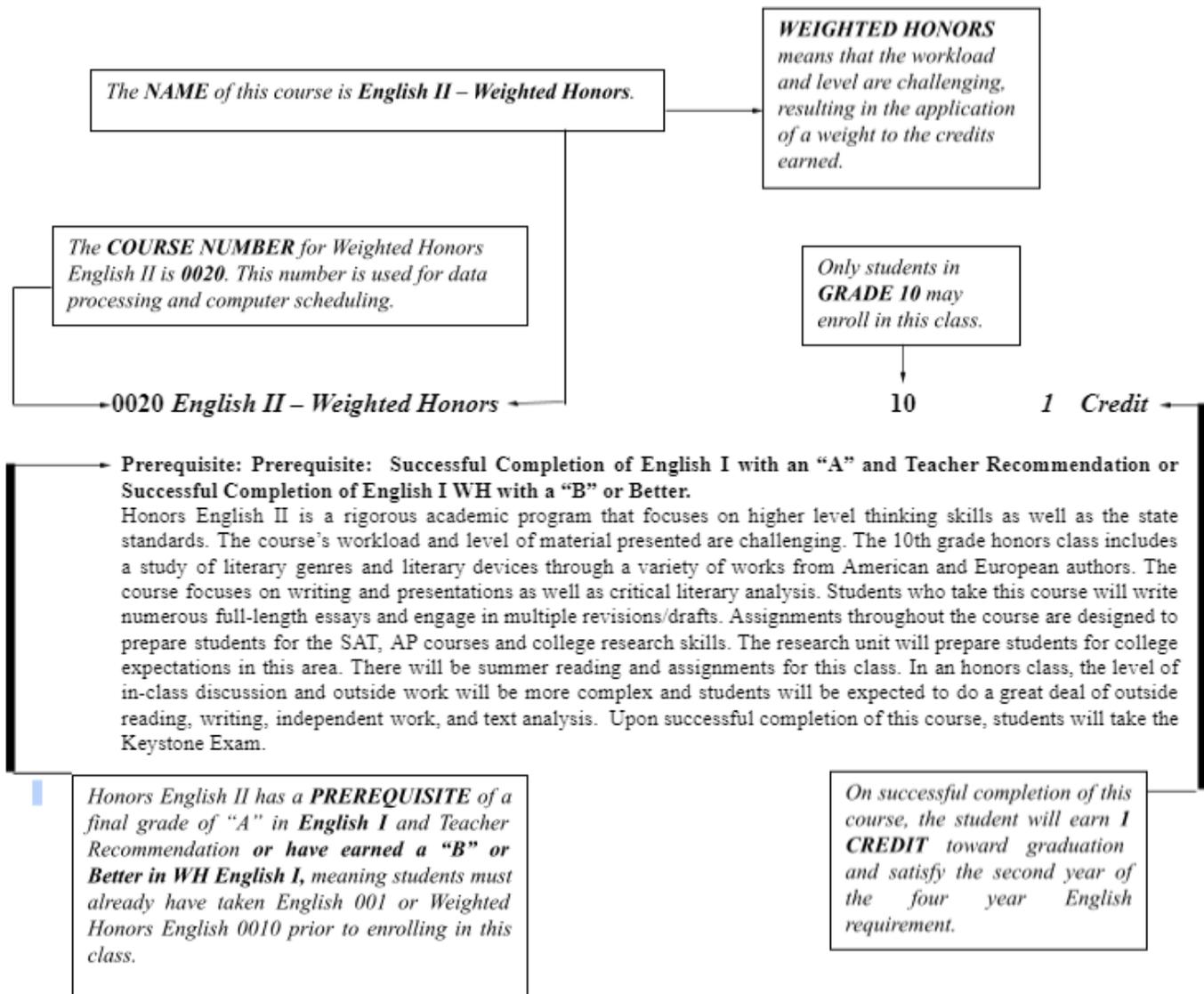
Valedictory and Salutatory Honors

Valedictory and Salutatory Honors designations are based on the highest and second highest GPA respectively. Students with identical GPAs will be further ranked in descending order according to the number of credits earned.



COURSE DESCRIPTIONS

INTERPRETING COURSE DESCRIPTIONS

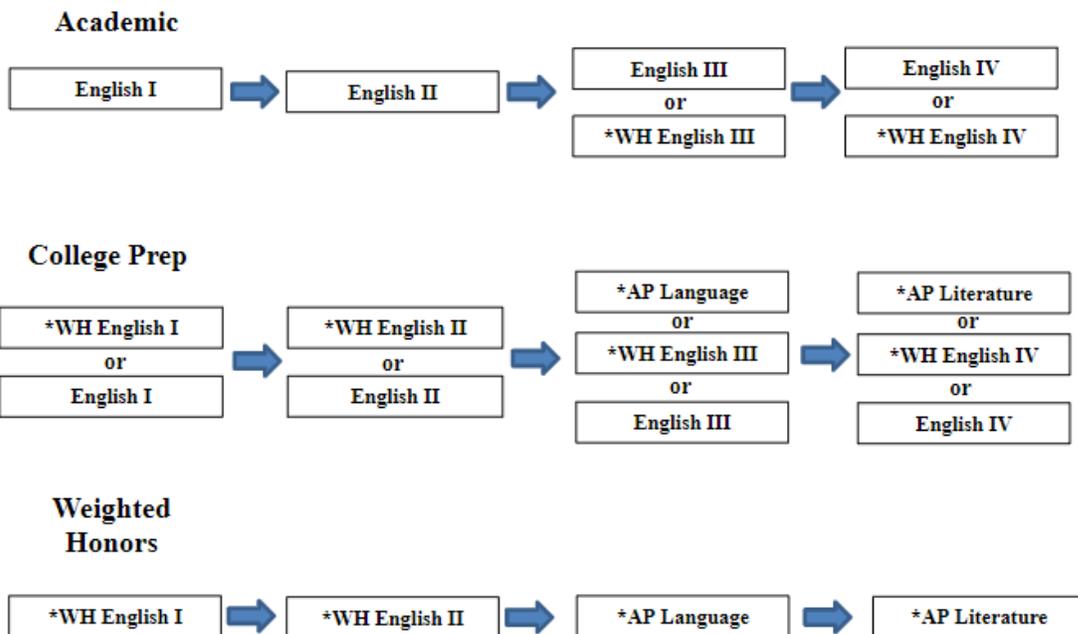




CORE CURRICULUM

The following courses are graduation requirements in the areas of English, Math, Science, Social Studies, and Health/Physical Education:

Sample English Course Pathways 2022-2023



**See Prerequisites*

ENGLISH

All English courses are rigorous academic programs that focus on higher level thinking skills and are aligned to PA Core standards.

001 **English I**  **Required** **9** **1 Credit**

English I will consist of an introduction to literature (short stories, *Romeo and Juliet* and poetry, with emphasis on basic literary terminology) and expository writing (organization, unity, development of good paragraph and composition structure, and grammar remediation as needed). In addition, each student is required to read several novels and complete a research project. The 9th Grade English course uses My Perspectives textbook which is aligned to the PA Core standards for English and Language Arts. As such, students in 9th grade English will be reading literature through a lens that explores author’s purpose, text analysis and character development in addition to the other PA Core standards.

0010 *English I – WH* **9** **1 Credit**
 The course's workload and level of material is more challenging and includes additional material and advanced activities presented at an increased pace. The 9th grade Honors class focuses on literary genre and type. The 9th Grade Weighted Honors English course uses My Perspectives textbook which is aligned to the PA Core standards for English and Language Arts. As such, students in 9th grade WH English will be reading literature through a lens that explores author's purpose, text analysis and character development in addition to the other PA Core standards. In an honors class, the level of in-class discussion and outside work will be more rigorous and students will be expected to do a great deal of outside reading, writing, independent work, and text analysis.

002 *English II*   **Required** **10** **1 Credit**
Prerequisite: Successful Completion of English I
 English II expands on basic composition structure and introduces practical writing formats. These structures are applied to the study of literary genre. A vocabulary unit, which includes word lists and a variety of dictionary and verbal skills, prepares students for tests including the PSAT. Grammar study and remediation follow writing and assignments. A short research paper and several speaking activities are included. The 10th Grade English course uses the Holt McDougal textbook which is aligned to the PA Core standards for English and Language Arts. As such, students in 10th grade English will be challenged to read complex literature and explore such ideas as author's voice, point of view, and text structure in addition to the other PA Core standards. Upon successful completion of this course, students will take the Keystone Exam.

0020 *English II – WH*   **10** **1 Credit**
Prerequisite: Successful Completion of English I and Teacher Recommendation or Successful Completion of English I WH
 Honors English II is a rigorous academic program that focuses on higher level thinking skills as well as the state standards. The course's workload and level of material presented are challenging. The 10th grade honors class includes a study of literary genres and literary devices through a variety of works from American and European authors. The course focuses on writing and presentations as well as critical literary analysis. Students who take this course will write numerous full-length essays and engage in multiple revisions/drafts. Assignments throughout the course are designed to prepare students for the SAT, AP courses and college research skills. The research unit will prepare students for college expectations in this area. There will be summer reading and assignments for this class. In an honors class, the level of in-class discussion and outside work will be more complex and students will be expected to do a great deal of outside reading, writing, independent work, and text analysis. Upon successful completion of this course, students will take the Keystone Exam.

003 *English III*  **Required** **11** **1 Credit**
Prerequisite: Successful Completion of English II
 English III is an integrated course based on American Literature. Components will include the reading and interpretation of literature (novel, short story, essay, poetry, and drama), literary terminology, vocabulary enrichment, speaking activities, research project, and writing that reflects literary readings. The 11th Grade English course is aligned to the PA Core standards for English and Language Arts. As such, students in 11th grade English will be reading literature through a lens that addresses all of the PA Core standards.

0030 *English III – WH*  **11** **1 Credit**
Prerequisite: Successful Completion of English II and Teacher Recommendation or Successful Completion of English II WH
 Honors English II is a rigorous academic program that focuses on higher level thinking skills as well as the PA Core standards. The course's workload and level of material presented are challenging. The 10th grade honors class includes a study of literary genres and literary devices through a variety of works from American and European authors. The course focuses on writing and presentations as well as critical literary analysis. Students who take this course will write numerous full-length essays and engage in multiple revisions/drafts. Assignments throughout the course are designed to prepare students for the SAT, AP courses and college research skills. The research unit will prepare students for college expectations in this area. There will be summer reading and assignments for this class. In an honors class, the level of in-class discussion and outside work will be more complex and students will be expected to do a great deal of outside reading, writing, independent work, and text analysis.

030 *AP Language and Composition*   **11** **1 Credit**
Prerequisite: Successful Completion of English II WH **Teacher Recommendation**
 The AP English Language and Composition course is designed to help students become skilled readers of prose written in a variety of rhetorical contexts and to become skilled writers who compose for a variety of purposes. This college-level course provides students with opportunities to write about a variety of subjects and to demonstrate an awareness of audience and purpose. The course will also enable students to read complex texts with understanding and to write prose of sufficient richness and complexity to communicate

effectively with mature readers. At the end of the course, all students are required to take the Advanced Placement examination in Language and Composition. There will be summer reading and assignments for this class. **Summer work is required for this course.**

Completion of AP courses may support the completion of Act 158: Graduation Pathways 3 and 4.

This course will be offered concurrently with Montgomery County Community College's English Composition 101 course. Students will be offered the opportunity to earn high school credit for the course in addition to college credit. Students must meet all MCCC and College Board requirements as outlined by the instructor to earn credit.

004 English IV  Required 12 1 Credit

Prerequisite: Successful Completion of English III

English IV is an integrated course based on a chronological survey of British literature with enrichment from literary works in World Literature. Components will include advanced literary terminology, vocabulary development through context, speaking activities, expository writing based on literary study, and a research unit. The 12th Grade English course uses the Holt McDougal British and World Literature textbook which is aligned to the PA Core standards for English and Language Arts. The course, while focused on British Literature and World Literature, also includes a robust focus on writing and vocabulary development with a special emphasis on preparing students for post-secondary education.

0040 English IV – WH  12 1 Credit

Prerequisite: Successful Completion of English III and Teacher Recommendation or Successful Completion of English III WH

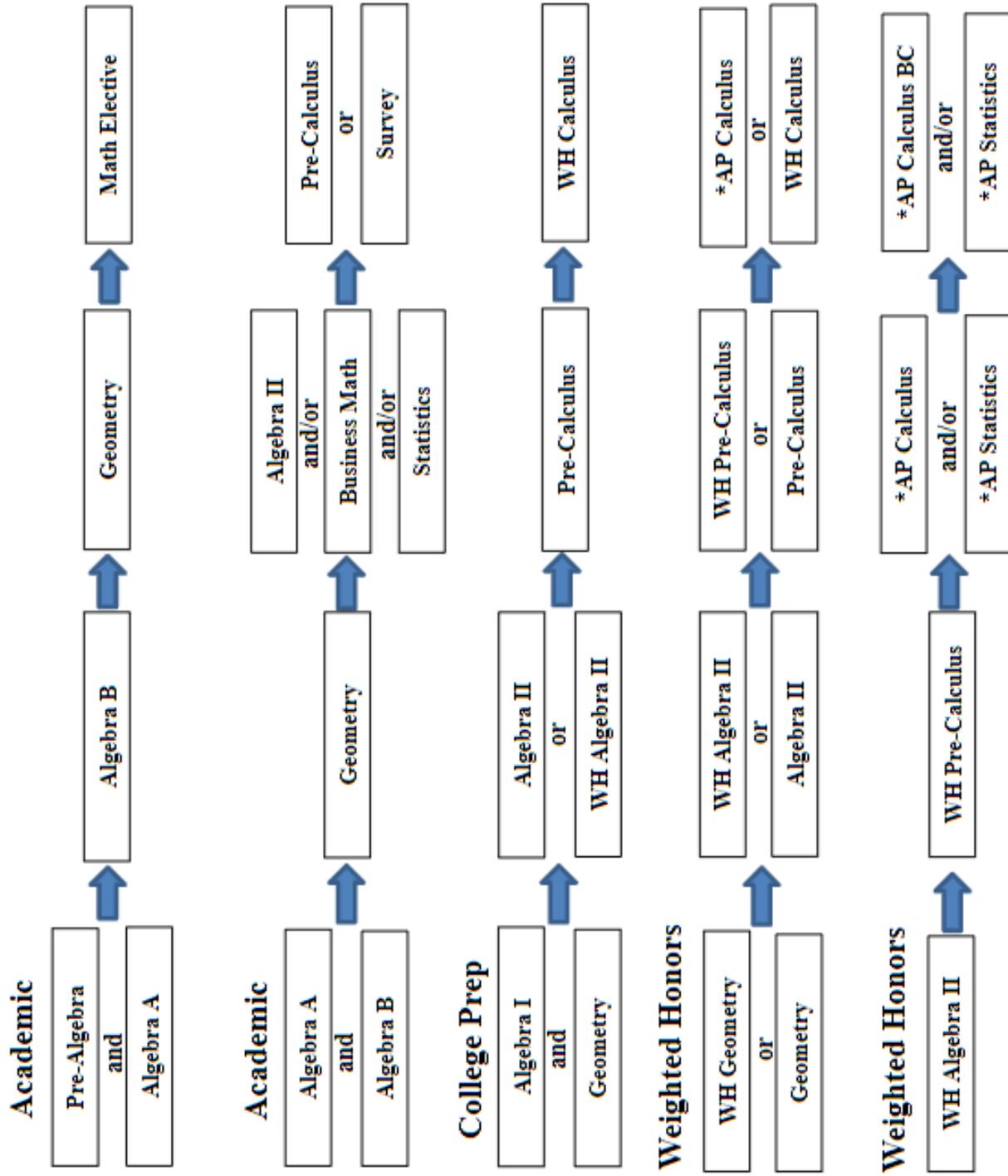
English IV Weighted Honors is a demanding, honors level British Literature course. The 12th grade honors class focuses on British and world literature and includes novel study, drama, poetry, and short stories. In the weighted honors course, students will analyze multiple interpretations of a story, drama, or poem (e.g., recorded or live production of a play or recorded novel or poetry), and evaluate how each version interprets the source text. This course increases and enhances writing skill through regular writing, revision, and rewriting. There will be summer reading and assignments for this class. The 12th Grade English WH Course uses the Holt McDougal British and World Literature textbook which is aligned to the PA Core standards for English and Language Arts.

0050 AP Literature and Composition   12 1 Credit

Prerequisite: Successful Completion of English III WH and Teacher Recommendation or Successful Completion of AP Language and Composition and Teacher Recommendation

The AP English Literature and Composition course is a college-level course that engages students in the careful reading and critical analysis of imaginative literature. Through the close reading of selected texts, students can deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. As they read, students should consider a work's structure, style, and themes, as well as such smaller-scale elements as the use of figurative language, imagery, symbolism, and tone. The course includes intensive study of representative works from various genres and periods, concentrating on works of recognized literary merit. The works chosen invite and gratify rereading. At the end of the course, all students are required to take the Advanced Placement examination in Literature and Composition. There will be summer reading and assignments for this class. **Summer work is required for this course.**

Sample Mathematics Course Pathways 2022-2023



MATHEMATICS

All Mathematic courses are rigorous academic programs that focus on higher level thinking skills and are aligned to PA Core standards.

Calculator Recommendation: It is recommended that every student have a graphing calculator (Texas Instrument TI-83+ or TI-84+) for use at home. Calculators are provided for student use during each math class. In addition, calculators will be available for sign out **ONLY** for courses required.

206 *Pre-Algebra* **1 Credit**
This course is designed for students that may require extra foundational skills before entering Algebra I. In this course, students will review mathematical skills needed for the study of Algebra as well as a brief introduction to Algebra. Topics include the arithmetic of integers, fractions, decimals, and percents; applications of these arithmetic skills to problems involving measurement, percent, ratio, and proportion; and math study skills. The introduction to Algebra consists of operations on signed numbers, algebraic expressions, solving linear equations and an introduction to graphing.

208 *Algebra A* **1 Credit**
This course is designed for our students that may require extra foundational skills before entering Algebra I. In this course, students will review mathematical skills needed for the study of Algebra as well as a brief introduction to Algebra. Topics include the arithmetic of integers, fractions, decimals, and percents; applications of these arithmetic skills to problems involving measurement, percent, ratio, and proportion; and math study skills. The introduction to Algebra consists of operations on signed numbers, algebraic expressions, solving linear equations and an introduction to graphing. Admission to this course will be based on student's previous performance in Mathematic courses, standardized tests, and progress projections.

2081 *Algebra B*   **1 Credit**
Prerequisite: Successful Completion of Algebra A
This course is a continuation of Algebra 1A. This course continues the study of the basic language and concepts of Algebra. In alignment with the PA Core standards, it focuses on topics related to statistics, data analysis, probability, predictions, analysis and functions. Students will formulate equations and inequalities to model routine, real life scenario problems. In addition, work with systems of equations, system of inequalities, and polynomials. Upon successful completion of this course, students will take the Algebra Keystone Exam.

209 *Algebra I*   **Required** **1 Credit**
2097 **2 Credits**
This course includes the study of the basic language and concepts of Algebra. In alignment with the PA Core standards, it focuses on topics related to statistics, data analysis, probability, predictions, functions, and graphing. Students will formulate and solve equations and inequalities to model routine, real life scenario problems. In addition, they will learn how to graph a linear function, identify its equation, and work with systems of equations. Upon successful completion of this course, students will take the Keystone Exam.

220 *Geometry*  **Required** **1 Credit**
Prerequisite: Successful Completion of Algebra I
This course includes a study of measurement, estimation and algebraic and trigonometric functions. In alignment with the PA Core standards, students will measure and compare angles and make predictions. Students will analyze figures in terms of area, perimeter, volume, symmetry, congruency, and similarity. In addition, they will prove triangles similar or congruent, identify corresponding parts of congruent triangles and use the properties of angles, arcs, chords, tangents, and secants to solve problems involving circles.

2200 *Geometry - WH*  **1 Credit**
Prerequisite: Successful Completion of Algebra I and Teacher Recommendation
This course is an intensive study of the basic properties and relationships of geometric figures. Students will analyze figures in terms of area, perimeter, volume, symmetry, congruency, and similarity. In alignment with the PA Core standards, this course will also

include topics of trigonometry. Students will also construct geometric figures and will perform various types of proofs.

215 *Algebra II*  **1 Credit**

Prerequisite: Successful Completion of Algebra I and Geometry

Algebra II includes extension of those concepts learned in Algebra I and incorporates the study of exponential equations, systems of equations, logarithms, functions, sequences and series, and matrix problems. In alignment with the PA Core standards, students will also learn how to solve linear and quadratic equations both symbolically and graphically. Students who do not score proficient on the Keystone Exam will retake the exam in December of the current school year.

2150 *Algebra II – WH*  **1 Credit**

Prerequisite: Successful Completion of WH Geometry or Successful Completion of Algebra I and Geometry and Teacher Recommendation

In alignment with the PA Core standards this course involves an intensive study of exponential equations, logarithms, patterns, sequences and series, standard deviation, and trigonometric functions. Students will solve systems of inequalities, linear and exponential equations, and equations of degree greater than two.

225 *Pre-Calculus*  **1 Credit**

Prerequisites: Successful Completion of Geometry, Algebra II & Teacher Recommendation

This course is recommended for those students who plan to continue the study of mathematics beyond high school. This course includes the study of the algebra of polynomial, absolute value, exponential, logarithmic, trigonometric, and other functions. It also includes the study of triangle trigonometry and the unit circle. **A graphing calculator is required for home use.**

2240 *Pre-Calculus – WH*  **1 Credit**

Prerequisites: Successful Completion of Algebra II and Teacher Recommendation or Algebra II WH

This course is offered as a preparation for the Advanced Placement Calculus (AB) class or Calculus I in college. Students study polynomial and rational functions, logarithmic and exponential functions, and trigonometric functions as well as limits and derivatives. Students work in groups to solve real world problems. **A graphing calculator is required for home use.**

2255 *Calculus – WH*  **1 Credit**

Prerequisite: Successful Completion of Pre-Calculus and Teacher Recommendation or Successful Completion of Pre-Calculus WH

This class provides students with the opportunity to study and experiment with calculus and analysis. Students work in a hands-on manner to discover some of the basic ideas used in calculus today. Students begin the process of studying calculus to better prepare them for the college courses they will take in the future. Although this is not an AP class, it prepares students to transition into the college level class of their choice. The students complete projects and experiment with real data. **A graphing calculator is required for home use.**

2250 *AP Calculus AB*   **1 Credit**

Prerequisite: Successful Completion of Pre-Calculus WH and Teacher Recommendation

The AB Calculus class is designed to cover what students study during a college calculus class. The curriculum has been designed by the College Board through consultation with teachers and college professors from across the nation. Students review functions and students examine limits, derivatives and their applications, and integrals and their applications. Students are required to take the Calculus AB Advanced Placement examination. **A graphing calculator is required for home use. Summer work is required for this course. Completion of AP courses may support the completion of Act 158: Graduation Pathways 3 and 4.**

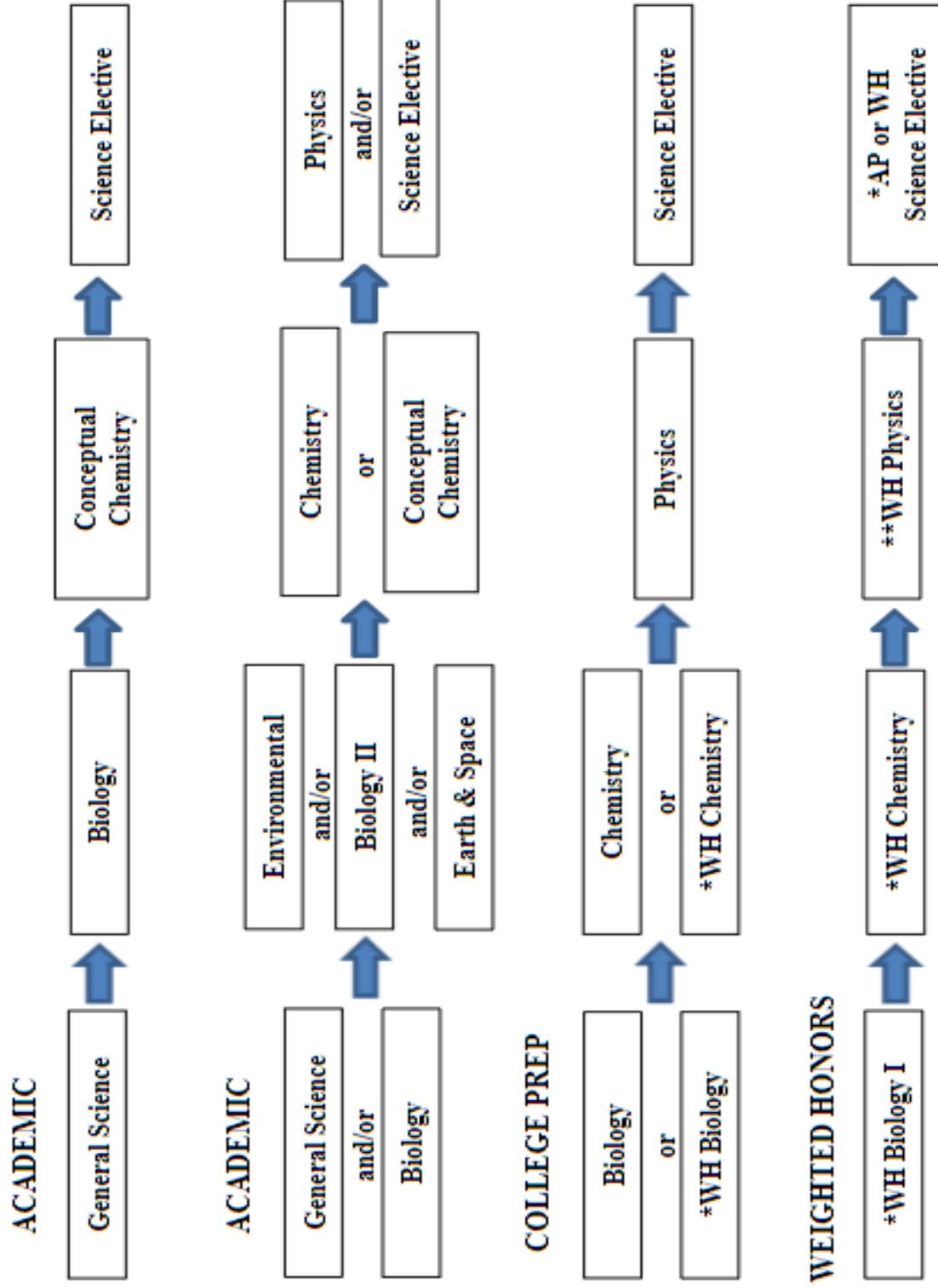
22500 *AP Calculus BC*   **1 Credit**

Prerequisite: Successful Completion of Calculus WH or AP Calculus AB and Teacher Recommendation

Calculus BC is a course in single-variable calculus that includes all the topics of Calculus AB (techniques and applications of the derivative, techniques and applications of the definite integral, and the Fundamental Theorem of Calculus) plus additional topics in differential and integral calculus (including parametric, polar, and vector functions) and series. It is equivalent to at least a year of calculus at most colleges and universities. Algebraic, numerical, and graphical representations are emphasized throughout the course. Students enrolled in this course are required to take the Calculus BC Advancement Placement examination. **A graphing calculator is required for home use. Summer work is required for this course. Completion of AP courses may support the completion of Act 158: Graduation Pathways 3 and 4.**

Sample Science Course Pathways

2022-2023



- 3061** *Conceptual Chemistry*  *Required* **10, 11, 12** *1 Credit*
Prerequisites: Successful Completion of Algebra I and Biology I
This course is designed to help students understand basic chemical principles and gain appropriate lab and measurement skills. Students will develop an understanding of how those concepts and skills are relevant to other courses and their daily lives. Chemical topics covered in the course include the exploration of the Periodic Table, matter and change, states of matter, measurements, atomic theory, bonding, solutions, and acids & bases. The course will use a variety of hands on activities and labs to help with the understanding of abstract concepts.
- 306** *Chemistry*  *Required* **10, 11, 12** *1 Credit*
Prerequisites: Successful Completion of Biology I or Biology I WH and Algebra II or Geometry (may be taken concurrently) and Proficient on Biology Keystone Exam (10th Grade Only)
This chemistry course is an introduction to chemical principles. A comprehensive examination of the fundamental chemical themes including stoichiometry, properties of gases, liquids, solids and solutions, nomenclature, and scientific measurement are presented. All laboratory exercises support these themes and demand proper written communication of scientific method, techniques, manipulation of data, analysis of scientific data, and the use of experimental data and critical thinking to support conclusions.
- 3060** *Chemistry - WH*  **10, 11, 12** *1 Credit*
Prerequisites: Successful Completion of Biology I WH with a “B” or Better or Biology I with an “A”, Successful Completion of Algebra II or Geometry and Proficient on Biology Keystone Exam (10th Grade Only)
This chemistry course is designed to prepare students for college-level general chemistry. A rigorous and comprehensive examination of the fundamental chemical themes is presented including the periodic table, atomic theory, chemical bonding, stoichiometry, properties of gases, liquids, solids and solutions, chemical equilibrium, nomenclature, acids and bases, and pH. All laboratory exercises support these themes and demand proper written communication of scientific method, techniques, manipulation of data, analysis of scientific data, and the use of experimental data and critical thinking to support conclusions.
- 308** *Earth-Space Science*  **10, 11, 12** *1 Credit*
Prerequisites: Successful Completion of Biology I or WH Biology I
Earth-Space is a blend of several sciences including Biology, Chemistry and Physics. In this course, students will explore the earth as a system of components that function together. Students will explore the structure, the processes that affect the surface, and the actions of the atmosphere. In this exploration of earth, students will cover several environmental and conservation issues. This course will also view the earth as a member of the solar system and the universe.
- 3080** *Earth-Space Science - WH*  **10, 11, 12** *1 Credit*
Prerequisites: Successful Completion of Biology I and Teacher Recommendation or Successful Completion of WH Biology I
This course requires students to employ previously and newly learned scientific and problem-solving skills along with appropriate technology to a study of the Earth, The Earth’s movement in space, and how event on Earth affect human activity. The scope of this course ranges from an in-depth examination of the movement of the Earth’s plates to how man has adapted to changes in his environment caused by himself and natural events. Students will receive 4-6 hours of independent material to work on outside of the class per week.
- 311** *Physics*  **11, 12** *1 Credit*
Prerequisites: Successful Completion Algebra I
This course presents an examination of the fundamental themes of Newtonian mechanics, light, sound, electricity, magnetism, and modern physics. The study of physics is helpful for students who will most likely go into college or some form of post-high school education.
- 3110** *Physics - WH*  **11, 12** *1 Credit*
Prerequisites: Successful Completion of Algebra I
This course presents a rigorous and comprehensive examination of the fundamental themes of Newtonian mechanics, light, sound, electricity, magnetism, and modern physics. All laboratory exercises support these themes and demand proper written communication of scientific method, techniques, manipulation of data, analysis of scientific data, and the use of experimental data and critical thinking to support conclusions. Students need to be highly motivated in science. The study of physics is helpful for students who will most likely go into college or some form of post-high school education. The concepts and laws of physics explored during this course will

be defined mathematically. The relationship between physics and calculus will also be explored. During each marking period students will be required to complete an independent or small group project related to topics in physics.

314 **Environmental Science**  **10, 11, 12** **1 Credit**

Prerequisites: Successful Completion of Biology I or WH Biology I

Environmental science includes the study of biological ecosystems (all living things within a particular geographic location). The course will also examine the impact of man and nature on the survival of the existing environment. Incorporated will be field evaluations of local rivers and streams, with the possibility of community service through water and soil testing of parks and watersheds. Present concern for our environment is a major political and social issue, and government regulation is a key concern as well. Career opportunities in environmental service should expand to meet these needs.

3140 **AP Environmental Science**   **10, 11, 12** **1 Credit**

Prerequisites: Successful Completion of Biology I WH with a “B” or Better and Teacher Recommendation or Successful Completion of Biology I with an “A” and Teacher Recommendation

This course will cover the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze both natural and human-made environmental problems, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them. Students who take this course are required to take the AP Environmental Science exam. In addition, summer assignments must be completed prior to entering the course. **Summer work is required for this course. Completion of AP courses may support the completion of Act 158: Graduation Pathways 3 and 4.**

30300 **AP Biology**   **10, 11, 12** **1 Credit**

Prerequisites: Successful Completion of Biology I WH with a “B” or Better and Teacher Recommendation or Successful Completion of Biology I with an “A” and Teacher Recommendation

This course is organized based on the four big ideas and corresponding enduring understandings as listed in the Curriculum Framework. The four big ideas are: Big Idea 1: The process of evolution drives the diversity and unity of life. Big Idea 2: Biological systems utilize free energy and molecular building blocks to grow, reproduce and to maintain dynamic homeostasis. Big Idea 3: Living systems store, receive, transmit and respond to information essential to life processes. Big Idea 4: Biological systems interact, and these systems and their interactions possess complex properties. All of the big ideas & essential knowledge components will be taught to students and all learning objectives will be assessed using laboratory, exam and formative assessments. While this course generally flows from Big Idea 1 to 2 to 3 to 4, each unit will provide students with opportunities to make connections between all four big ideas, as evidenced in the “Course Details” section. In addition, summer assignments must be completed prior to entering the course. **Summer work is required for this course.**

Completion of AP courses may support the completion of Act 158: Graduation Pathways 3 and 4.

This course will be offered concurrently with Montgomery County Community College’s Biology 121/122 course. Students will be offered the opportunity to earn high school credit for the course in addition to college credit. Students must meet all MCCC and College Board requirements as outlined by the instructor to earn credit.

30600 **AP Chemistry**   **11, 12** **1 Credit**

Prerequisites: Successful Completion of Chemistry WH with a “B” or Better and Teacher Recommendation or Successful Completion of Chemistry with an “A” and Teacher Recommendation

This AP Chemistry course is college level course. For most students, the course enables them to undertake, as a freshman, second year work in the chemistry sequence at their institution or to register in courses in other fields where general chemistry is a prerequisite. This course is structured around the six big ideas articulated in the AP Chemistry curriculum framework provided by the College Board. This framework is based on six big ideas. Big Idea 1: Structure of matter, Big Idea 2: Properties of matter-characteristics, states, and forces of attraction, Big Idea 3: Chemical reactions, Big Idea 4: Rates of chemical reactions, Big Idea 5: Thermodynamics. Big Idea 6: Equilibrium A special emphasis will be placed on the practices, which capture important aspects of the work that scientists engage in, with learning objectives that combine content with inquiry and reasoning skills. AP Chemistry is open to all students that have completed a year of chemistry who wish to take part in a rigorous and academically challenging course (see prerequisites). In addition, summer assignments must be completed prior to entering the course. **Summer work is required for this course.**

Completion of AP courses may support the completion of Act 158: Graduation Pathways 3 and 4.

3111

AP Physics



12

1 Credit

Prerequisites: Successful Completion of WH Physics with a “C” or Better or Physics with a “B” or Better

AP Physics is an algebra-based, introductory college-level physics course. Students cultivate their understanding of Physics through inquiry-based investigations as they explore topics such as fluid statics and dynamics; thermodynamics with kinetic theory; Pressure Volume diagrams and probability; electrostatics; electrical circuits with capacitors; magnetic fields; electromagnetism; physical and geometric optics; and quantum, atomic, and nuclear physics. ***Summer work is required for this course.***

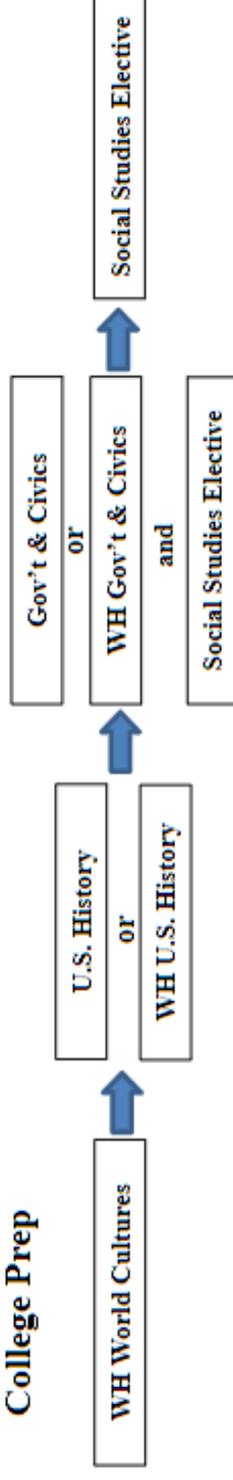
Completion of AP courses may support the completion of Act 158: Graduation Pathways 3 and 4.

Sample Social Studies Course Pathways 2022-2023

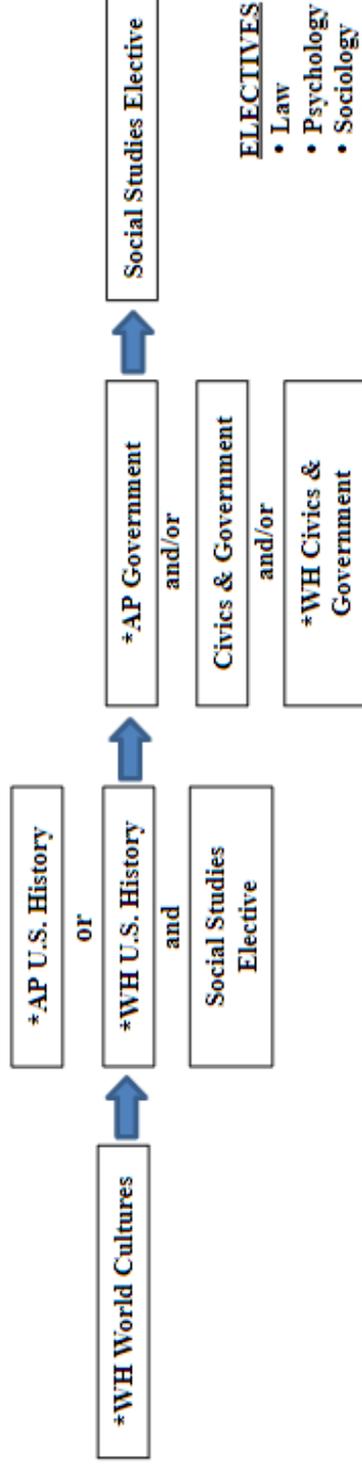
Academic



College Prep



Weighted Honors



ELECTIVES

- Law
- Psychology
- Sociology
- African American History
- *AP Human Geography
- *AP Modern European Hi
- *AP Psychology

Prerequisites

SOCIAL STUDIES

All Social Studies courses are rigorous academic programs that focus on higher level thinking skills and are aligned to Next Generation Core standards.

102 **World Cultures & Literature**  **Required** **9** **1 Credit**

This survey course examines interactions around the world from both past and present perspectives. Students explore the history of Europe, Africa, Asia and North/South America and the interconnection these regions have in modern day. Students will investigate geography, history, belief systems, political systems, culture and contemporary issues of the different regions in the world through the examination of primary and secondary sources and research skills. Students will read a series of short stories which encapsulate the culture of people worldwide and analyze their global impact. Students will precisely and effectively communicate what has been learned, and then be able to apply learning to new situations. Literacy strategies and skills will be embedded into the World Cultures and Literature course on a daily basis to bolster students' critical reading, writing and thinking skills.

1020 **World Cultures & Literature – WH**  **9** **1 Credit**

Prerequisites: Successful completion of 8th Grade Social Studies

Weighted Honors World Cultures will provide students with the opportunity to develop analytical skills of the various cultures of the world. The course progresses from the emergence of Islam in 600 AD to the Industrial Age. This is a survey course that examines the roots and development of Europe, the Middle East, Africa, the Americas and Asia throughout modern day history. Throughout this course, students will be challenged academically through rigorous and relevant examination of historical events throughout various time periods and their link to contemporary issues. Students will be able to evaluate the interaction and cultural influences throughout the world between cultures. Students will use technology, primary and secondary sources, research skills, simulations, media resources and traditional text to expand their understanding of history. Students will be expected to create meaningful and thoughtful assignments and develop critical thinking skills.

100 **U.S. History**  **Required** **10** **1 Credit**

In this interdisciplinary Social Studies course, students will study the United States from the 1920s to the present. Using traditional approaches, this course presents the political, economic, social, and cultural contributions Americans have made here and abroad.

1000 **U.S. History – WH**  **10** **1 Credit**

Prerequisites: Successful Completion of World Cultures with a “B” or Better & Teacher Recommendation

This course is specifically designed for college bound students who are highly interested and want an in-depth view of the political, social, and cultural accomplishments of the United States from the 1920's to the present. The course presents the political, economic, social, and cultural contributions Americans have made both in this country and abroad. This course will challenge the creativity of students in the cognitive domain and higher level thinking skills as well as the use of technology.

10000 **AP U.S. History**   **10, 11** **1 Credit**

Prerequisites: Successful Completion of World Cultures, English I and Teacher Recommendation or Successful Completion of World Cultures WH and English I WH

Advanced Placement United States History is designed to enable students to develop analytical skills and acquire a thorough knowledge of United States History. The approach of the course includes, but is not limited to, the following elements: development of substantial knowledge of social, cultural, political, economic, and military events relevant to the history of the United States; development of assessment and interpretive skills; development of geographic awareness; the development of analytical thinking skills, and the development of communication skills through the writing of coherent, analytical essays. The course is intended to be equivalent to a college level introductory course. Consequently, the course is designed to challenge the student. **Summer work is required for this course.**



ELECTIVES

The following courses are electives that can be chosen during the grades indicated in the course descriptions. They are organized according to content area.

ART ELECTIVES

Note: Students wishing to take Studio courses who have not taken Art Major I and/or Art Major II must present evidence of knowledge with a portfolio of their art work.

***Higher level art courses that use specialized, consumable supplies, may require that students pay a small fee. Arrangements can be made to accommodate individual situations.**

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|--|--|----------------------|-----------------|
| 600 | Artistry Crafts | 9, 10 | 1 Credit |
| <p>This hands-on course will explore various methods of creating traditional and non-traditional decorative arts with an emphasis on craftsmanship, unique materials, and experimentation. By exploring various cultural techniques and methods, students will have the opportunity to study and create functional and non-functional forms created through non-traditional media.</p> | | | |
| 601 | Art Major I: Drawing & Painting | 9, 10, 11, 12 | 1 Credit |
| <p>Prerequisite: Art Teacher Recommendation Required. 9th Grade Students May Apply to this Course Only with a Written Recommendation from Their Middle School Art Teacher.</p> <p>This is a foundation course presenting students with a range of techniques and concepts to develop artistic abilities with a strong focus not only on drawing skills, but also in problem solving. This class is for students interested in continuing with the arts and is a prerequisite for all studio classes. Successful completion of this course is required, and will allow students to advance to the following studio courses directly after completion of this course; Jewelry, Sculpture, Ceramics, Photography and Graphic Design. For additional studio courses, Art Major II must be completed.</p> | | | |
| 6020 | Art Major II - WH | 10, 11, 12 | 1 Credit |
| <p>Prerequisite: Successful Completion of Art Major I</p> <p>This is a continuation of Art Major I with a focus on building and developing students' drawing, painting and design skills. New materials will also be explored to create 2D and 3D artworks. Successful completion of this course is required to advance to the Portfolio Preparation.</p> | | | |
| 605 | Photography I | 10, 11, 12 | 1 Credit |
| <p>Prerequisite: Successful Completion of Art Major I</p> <p>This course encompasses the techniques of film photography and darkroom processing as well as the modern techniques of digital photography and digital editing. Students will gain Adobe Photoshop image editing skills.</p> | | | |
| 60520 | Photography II - WH | 11, 12 | 1 Credit |
| <p>Prerequisite: Completion of Photography</p> <p>Students will be exposed to all forms of photography so that they may find and expand upon their niche. They will review the basics of film and digital, plan thesis photoshoots, practice, photojournalism, and begin to build a photography portfolio.</p> | | | |
| 60530 | Photography III - WH | 12 | 1 Credit |
| <p>Prerequisite: Completion of Photography and II</p> <p>Building off skills learned in Photography I and II, students will push the techniques a bit farther by picking a thesis for their photography. Students will plan independent photoshoots with a focus on theme and message. A portfolio will be completed for potential college evaluations as well.</p> | | | |
| 606 | Ceramics | 10, 11, 12 | 1 Credit |
| <p>Prerequisite: Successful completion of Art Major I and Teacher Recommendation</p> <p>Students will gain a strong Foundation in all basic hand building and throwing techniques working with clay to create coils, slabs, sculptural forms, and the potter's wheel to create functional and non-functional forms. The basics of different clay bodies, glazes and firing techniques will also be studied.</p> | | | |
| 60620 | Ceramics II - WH | 11, 12 | 1 Credit |
| <p>Prerequisite: Completion of Ceramics with a "B" or Better</p> <p>Students will build on foundations of technical skills of handbuilding and wheel throwing with emphasis on conceptual art, individual and group critiques, and research in the area of Ceramic Arts.</p> | | | |

510	<i>Career Technology I</i>	9, 10, 11	<i>1 Credit</i>
511	<i>Career Technology II</i>	10, 11, 12	<i>1 Credit</i>

Prerequisite for Career Technology II: Successful Completion of Career Technology I

What does it take to survive in today's world? How can you increase your net worth? What personal and technical skills and abilities will you need as you go off to college or out to work? Learn the answer to these and other important questions by enrolling in Career Technology. This class will help develop your personal and technical proficiencies essential for a successful future. Learn to use resource materials, budget techniques, balance a checkbook, and record management. Increase your technical proficiency, brush up on computer applications: Internet, word processing, database, spreadsheet and presentation programs. Learn the skills and applications of critical thinking, decision making, and problem solving necessary in your life. Learn how to choose a satisfying and rewarding career, make the right selections based on your aptitudes, personality, and aspirations. Prepare now to live the life you imagined! Students are provided with more than sixty career adventures in Career Technology to prepare for college and/or employment opportunities in our global economy. Individualized instructional areas include business, marketing, communication, service and technology.

521	<i>Advanced Marketing (DECA) - WH</i>	10, 11, 12	<i>1 Credit</i>
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Prerequisite: DECA Advisor Recommendation

This course is designed to develop an understanding of marketing processes and the specific skills in selling, advertising, display, business record keeping, merchandising and human relations. Included are basic economics, marketing processes, consumer motivation, techniques of selling, business systems, customer services, business communication, interpersonal relationships and sales promotion activities in the DECA chapter are used to develop leadership abilities. To receive honors credit, students must participate in DECA's co-curricular competitions and complete a DECA competition project.

522	<i>Sports/Entertainment Marketing</i>	11, 12	<i>1 Credit</i>
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This course will discuss why fans and advertisers spend billions of dollars each year on recreational entertainment and related products and services. We will examine and discuss how to organize and develop a Marketing Plan, with emphasis on various strategies that target specific consumers in the field of Sports and Entertainment.

523	<i>Introduction to Marketing</i>	9, 10	<i>1 Credit</i>
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Students will investigate topics in advertising, communication, consumer behavior, sports and entertainment marketing, and fashion marketing while learning to promote their ideas, products, and themselves.

5230	<i>Introduction to Marketing - WH</i>	9, 10	<i>1 Credit</i>
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Students gain an understanding of the importance of marketing in today's society. They develop skills related to interpersonal communication, self-presentation, economics, marketing, sales, employability, career discovery, and ethical decision-making. This course reinforces mathematics, science, English, and history Standards of Learning. Computer/technology applications and DECA activities support this course. DECA, the co-curricular student organization, offers opportunities in leadership, community, and competitive events

524	<i>Entrepreneurship</i>	11, 12	<i>1 Credit</i>
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Students will investigate issues in management, business law, and finance. They will develop their own personal business plan and have the opportunity to work with business people from the community who offer real world experience and insight.

525	<i>Career Exploration</i>	9	<i>1 Credit</i>
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Career Exploration focuses on the analysis of current career trends, related technology, workforce diversity, and ways to thrive in a global marketplace. Students' individual needs are addressed as careers are examined that fit each individuals' talent and passions. Future career success is promoted by providing students with current and projected career information and building skills in vital areas such as networking, communications, teamwork, problem solving and public speaking.

526	<i>Personal Finance</i>	11, 12	<i>1 Credit</i>
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Students will gain an understanding of their consumer rights/responsibilities and basics of credit and the law. Topics will include checking and savings accounts, investing, real estate and risk management pertaining to vehicle, property, life, and health insurance.

527	<i>Accounting Principles</i>	10, 11, 12	<i>1 Credit</i>
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Prerequisite: Successful Completion of Algebra I with a "C" or Better

Whether you plan to enter the workforce or continue onto college, this course is a must for those who are interested in or plan to major

A continuation of the pre-engineering path based on learning engineering principles and concepts through computer modeling and hands-on lab experiences.

652 *PLTW - Engineering Design/Development – WH* **12** **1 Credit**

Prerequisite: Successful Completion of 3 Prior PLTW Courses

Engineering Design/Development encompasses the other courses with a curriculum designed to allow the student to learn how to solve technical problems using the same methodologies scientists and engineers use on a daily basis (the engineering design process). Students will choose a problem they determine with an existing product, they will research solutions, determine the best solution design, test and present their findings.

650 *Foundations of Technology (Not in PLTW)* **9** **1 Credit**

Students will explore different areas of technology throughout history and the present day. Students will have opportunities to learn and research many important technologies, as well as experience hands on activities in graphics, construction and carpentry, casting and molding, drafting, and modeling. Students will also learn proper and safe use of hand tools, efficient use of materials and how to read plans.

653 *Structural Engineering (Not in PLTW)* **10, 11, 12** **1 Credit**

This course is project and activity based, it focuses on structures and the forces that act on them. It is divided into four areas (bridges, buildings and towers, homes, and transportation. Each area is studied through research and a hands-on approach through the building of models. Students will study the history, evolution of constructing methods, materials and then build scale models.

654 *Wood Technologies (Not in PLTW)* **10, 11, 12** **1 Credit**

Prerequisite: Successful Completion of Foundations of Technology

This course is project and research based. Students will learn proper and safe use of hand and power tools. They will learn to efficiently plan and maximize use of materials. They will demonstrate understanding of different building techniques through the building of class projects and the following of set plans. Students will learn to distinguish various types of wood through their individual characteristics and determine why various types are better for different projects.

655 *Computer Science - WH (PLTW)* **9, 10, 11, 12** **1 Credit**

Prerequisite: Successful Completion of Algebra I

This course is designed to offer an introduction to computer science. Students will learn the basics of computer programming along with the basics of computer science. The material emphasizes computational thinking and helps develop the ability to solve complex problems. This course covers the basic building blocks of programming along with other central elements of computer science. It gives a foundation in the tools used in computer science and prepares students for further study in computer science.

ENGLISH and COMMUNICATION ELECTIVES

0060 *Problems in Philosophy - WH* **11, 12** **1 Credit**

Prerequisite: Successful Completion of English II or English III with a “B” or Better

Problems in Philosophy is a year-long course that looks at the history of ideas from a subject rather than chronological approach. The course covers important but more independent philosophers including Maimonides, Spinoza, Nietzsche and Rawls. The course approaches major issues in academia and society including issues in philosophy of religion, philosophy of art, philosophy of mind and contemporary questions discussed by philosophy including Bioethics, economic ethics, technological advancement, and political justice. Students encounter these questions with support of primary source reading, podcasts, literature, film and art. *This is a discussion class focusing on reading, conversation and writing in the standard seminar-style college format.*

**Not offered 2022-2023 school year.*

013 *School Publications - WH* **9, 10, 11, 12** **1 Credit**

Prerequisite: Teacher Recommendation from Previous Year’s English Teacher is Needed

The School Publications I course is the first step to earning staff membership with the school’s newspaper, The Wingspan. The course will include law and ethics, as well as an introduction to news literacy, content planning, interview tactics, various writing techniques, critical proofing (editing), and marketing. During the course students will be expected to have published an online profile through The

abnormal behavior and therapy. Also included is an introduction to the various careers associated with psychology. Key to the study of psychology is the scientific method and how it is applied to the analysis and measurement of individuals and groups.

1180 **AP Psychology**   **10, 11, 12** **1 Credit**
This course will introduce students to the systematic and scientific study of behavior and mental processes of human beings and animals. Students are exposed to the physical facts, principles and phenomena associated with the major subfields within psychology. Students will also learn about the method psychologists' use in their science and practice. At the end of the course, all students are required to take the AP test. **Summer work is required for this course.**

128 **Law** **9, 10, 11, 12** **1 Credit**
Law is a rigorous law-related education class that gives students a practical understanding of our laws and legal system. This course focuses on legal issues relevant to students' lives and develops knowledge and skills essential in our law-oriented society using critical thinking and reasoning, communication and problem solving. Students will gain a basic understanding of the fundamental principles and values underlying in the U.S. Constitution, and how it influences both civil and criminal law, as well as focusing on juvenile, family, and consumer law.

1300 **AP Human Geography**   **10, 11, 12** **1 Credit**
This course analyzes the fundamental concepts of geography and helps students develop critical thinking skills through the understanding and application of the field. This course focuses on the key concepts of geography as a field of inquiry dealing with the following areas of geography respectively, cultural, political, agricultural, industrial, rural, economic, city and urban planning as well as population problems. At the end of the course, all students are required to take the AP test. **Summer work is required for this course.**

108 **African-American History** **9, 10, 11, 12** **1 Credit**
This introductory course, both intensive and extensive, provides an interdisciplinary study of important themes and topics central to the study of experiences of African Americans in the United States. Students will explore theoretical questions, methodological approaches, and major themes that have shaped African American life and culture in the United States. The course begins with classical African civilizations and then explores the impact of African-Americans on the development of the United States. The course is taught using secondary sources.

110 **Mexico and Latin American History & Culture** **11, 12** **1 Credit**
Prerequisite: Success Completion of U.S. History
This course will introduce students to the study of Latin American history and culture by analyzing events, experiences and current topics impacting Mexico and Latin America and themes that have forged Latin American identity and culture. Students will be able to understand major events that have shaped Latin America. The course explores the major Native American Civilizations of Latin America including the Aztecs, Maya and Incas. The course analyzes the Age of Exploration and its impact on both Latin America and Europe while discussing the consequences of the Columbian exchange. The course investigates life during the colonial period, various independence movements throughout Mexico and Latin American and current issues that impact the region and its relationship with the United States.

WORLD LANGUAGE ELECTIVES

To progress to the next level, a student must earn at least a C and/or have the teacher's recommendation. Many colleges and universities require a minimum of 2 years of the same world language to be considered for admission. More selective colleges and universities may be interested in seeing students take 3 or 4 years of the same world language.

400 **French I**  **9, 10, 11** **1 Credit**

This introductory course is for students who have never studied the language or have minimal/limited prior knowledge of or exposure to the language. Students are introduced to basic vocabulary and grammar and learn to communicate about themselves, their families, restaurants, and leisure activities. The four skills of listening, speaking, reading, and writing are emphasized. Students are exposed to the customs and the culture of the target language.

4000 *French I – WH*  **9, 10, 11** **1 Credit**

Prerequisite: Successful Completion of 8th Grade English & Teacher Recommendation

This introductory course is for students who have never studied the language or have minimal/limited prior knowledge of or exposure to the language. Students are introduced to basic vocabulary and grammar and learn to communicate about themselves, their families, restaurants, and leisure activities. The four skills of listening, speaking, reading, and writing are emphasized. Students are exposed to the customs and the culture of the target language. The course's workload and material are more challenging and include additional material (vocabulary, grammar concepts) and advanced activities (unstructured dialogue, more in-depth readings) presented at an increased pace.

401 *French II*  **10, 11, 12** **1 Credit**

Prerequisite: Successful completion of French I or WH French I

The second year builds upon the first year's program. Vocabulary development, more complex grammatical structures and additional verb tenses are emphasized. Students learn to communicate about preferences, vacations, celebrations, and gastronomy through more in-depth oral and written activities. Increased proficiency in listening and speaking is expected. More sophisticated readings are introduced. Students are expected to write original paragraphs and short compositions in the target language. The study of the culture and customs of the target language is continued through readings, videos and other media in the target language.

4010 *French II - WH*  **10, 11, 12** **1 Credit**

Prerequisite: Successful Completion of French I or WH French I with Teacher Recommendation

The second year builds upon the first year's program. Vocabulary development, more complex grammatical structures and additional verb tenses are emphasized. Students learn to communicate about preferences, vacations, celebrations, and gastronomy through more in-depth oral and written activities. Increased proficiency in listening and speaking is expected. More sophisticated readings are introduced. Students are expected to write original paragraphs and short compositions in the target language. The study of the culture and customs of the target language is continued through readings, videos and other media in the target language. The course's workload and material are more challenging and include additional material (vocabulary, grammar concepts) and advanced activities (unstructured dialogue, more in-depth readings) presented at an increased pace.

402 *French III*  **11, 12** **1 Credit**

Prerequisite: Successful Completion of French I & French II

Increasingly sophisticated vocabulary and grammatical skills are developed in conjunction with improved listening, speaking, reading, and writing abilities. Additional verb tenses are introduced. More complex reading and writing assignments are part of the course. Students learn to communicate about health, technology, driving, and occupations through advanced oral and written activities. Cultural awareness continues to be developed through readings, and the use of other media in the target language.

4020 *French III – WH*  **11, 12** **1 Credit**

Prerequisite: Successful completion of French II or WH French II with Teacher Recommendation

Increasingly sophisticated vocabulary and grammatical skills are developed in conjunction with improved listening, speaking, reading, and writing skills in accordance with ACTFL guidelines for World Languages in order to communicate better in the language. Additional verb tenses are introduced. Students learn to communicate about health, technology, driving, and occupations through advanced oral and written activities. More complex reading and writing assignments are part of this course. Cultural awareness continues to be developed through the study of francophone cultures through the use of newspapers, magazines, music, film, and literature. The course's workload and material are more challenging and include additional material (vocabulary, grammar concepts) and advanced activities (unstructured dialogue, more in-depth readings) presented at an increased pace.

4030 *French IV - WH*  **11, 12** **1 Credit**

Prerequisite: Successful Completion of French III or WH French III with Teacher Recommendation

Increased emphasis is placed on oral proficiency as well as written self-expression in the target language. A grammar review is combined with the introduction of the remaining essential grammar topics. Readings are in the target language. More sophisticated writing is expected. Thematic units such as science and technology, key francophone figures, and the environment are studied. Cultural topics are conveyed through the use of authentic resources such as magazines, videos, and internet resources. The course's workload and material are more challenging and include additional material (vocabulary, grammar concepts) and advanced activities (unstructured dialogue, more in-depth readings) presented at an increased pace.

40300 **AP** **French**   **11, 12** **1 Credit**

Prerequisite: Teacher Recommendation

AP French Language and Culture is designed to increase the fluency and level of sophistication with which students express themselves in French, develops their ability to understand the language and the cultures of the French-speaking world. The course prepares students for the Advanced Placement French Language and Culture examination (additional fee), which they take at the end of the year. This exam provides the opportunity to earn college credits. Successful completion of this course requires significant work and diligence. *Summer work is required for this course. *Not offered 2022-2023 school*

411 **Spanish for Heritage Speakers I** **9, 10, 11, 12** **1 Credit**

Prerequisite: Primary Language Spoken by the Student at Home is Spanish. Student must be able to Speak, Read, and Write Spanish to Some Extent. A Placement Test Will Be Used to Determine the Level Proficiency and Placement for Each Student

Students will improve their current speaking, reading, and writing skills in Spanish. The purpose of this course is to improve academic language and literacy skills for Spanish-speaking students and build an appreciation for Hispanic culture through a variety of literature, including poems, novels, and short stories. Students will also develop and improve skills in other areas of study through cross-curricular study of other disciplines while improving their Spanish skills. The course enhances literacy, improves language skills, and develops cross-cultural understanding for Spanish heritage speakers. It is taught completely in Spanish.

4112 **Spanish for Heritage Speakers II** **10, 11, 12** **1 Credit**

Prerequisite: Primary Language Spoken by the Student at Home is Spanish. Successful Completion of Heritage I & Teacher Recommendation

Students will continue to improve their current speaking, reading, and writing skills in Spanish. The purpose of this course is to improve academic language and literacy skills for Spanish-speaking students and build an appreciation for Hispanic culture through a variety of literature, including poems, novels, and short stories. Students will also develop and improve skills in other areas of study through cross-curricular study of other disciplines while improving their Spanish skills. The course enhances literacy, improves language skills, and develops cross-cultural understanding for Spanish heritage speakers. It is taught completely in Spanish.

4113 **Spanish for Heritage Speakers III–WH** **11, 12** **1 Credit**

Prerequisite: Primary Language spoken by the student at home is Spanish. Successful completion of Heritage II with a “C” or better & Teacher Recommendation

Students will continue to improve their current speaking, reading, and writing skills in Spanish through more intensive grammar, reading and writing activities. The course continues to enhance literacy, improve language skills, and develop cross-cultural understanding for Spanish heritage speakers. It is taught completely in Spanish.

4114 **Spanish for Heritage Speakers IV–WH** **12** **1 Credit**

Prerequisite: Primary Language Spoken by the Student at Home is Spanish. Successful Completion of Heritage III with a “C” or Better & Teacher Recommendation

Students will continue to improve their current speaking, reading, and writing skills in Spanish through more intensive grammar, reading and writing activities. The course continues to enhance literacy, improve language skills, and develop cross-cultural understanding for Spanish heritage speakers. It is taught completely in Spanish.

412 **Spanish**  **9, 10, 11** **1 Credit**

The first level of Spanish is appropriate for those students who have never studied Spanish or have had minimal prior knowledge or limited exposure to the language. Students are introduced to basic grammar and vocabulary. Students develop the four basic language skills of listening comprehension, speaking, reading, and writing through units with themes revolving around the aspects of life in the many Spanish-speaking countries. Students are introduced to customs and cultures of the many countries that speak Spanish. In addition, students will be exposed to cultural enrichment in a weekly lesson that focuses on different styles of music from Spain and Latin American countries



4120	<i>Spanish I - WH</i>	9, 10, 11	<i>1 Credit</i>
Prerequisite: 8th Grade English Teacher Recommendation			
The first level of Spanish is appropriate for those students who have never studied Spanish or have had minimal prior knowledge or limited exposure to the language. Students are introduced to basic grammar and vocabulary. Students develop the four basic language skills of listening comprehension, speaking, reading, and writing through units with themes revolving around the aspects of life in the many Spanish-speaking countries. Students are introduced to customs and cultures of the many countries that speak Spanish. In addition, students will be exposed to cultural enrichment in a weekly lesson that focuses on different styles of music from Spain and Latin American countries. The course's workload and material are more challenging and include additional material (vocabulary, grammar concepts) and advanced activities (unstructured dialogue, more in-depth readings) presented at an increased pace.			
413	<i>Spanish II</i> 	10, 11, 12	<i>1 Credit</i>
Prerequisite: Successful Completion of Spanish I			
The second year builds upon the first year's program. Vocabulary development, more complex grammatical structures, and additional verb tenses are emphasized. Increased proficiency in listening and speaking is expected. More sophisticated readings are introduced. Students are expected to write original paragraphs and short compositions in the target language. The study of the culture and customs of the target language is continued through readings, videos, and other media in the target language. Students will also be exposed to cultural enrichment in a weekly lesson that focuses on famous historical figures from Spain and Latin American countries.			
4130	<i>Spanish II - WH</i> 	10, 11, 12	<i>1 Credit</i>
Prerequisite: Successful Completion of Spanish I or Spanish I WH with Teacher Recommendation			
The second year builds upon the first year's program. Vocabulary development, more complex grammatical structures, and additional verb tenses are emphasized. Increased proficiency in listening and speaking is expected. More sophisticated readings are introduced. Students are expected to write original paragraphs and short compositions in the target language. The study of the culture and customs of the target language is continued through readings, videos, and other media in the target language. Students will also be exposed to cultural enrichment in a weekly lesson that focuses on famous historical figures from Spain and Latin American countries. The course's workload and material are more challenging and include additional material (vocabulary, grammar concepts) and advanced activities (unstructured dialogue, more in-depth readings) presented at an increased pace.			
414	<i>Spanish III</i> 	11, 12	<i>1 Credit</i>
Prerequisite: Successful Completion of Spanish I & Spanish II			
Students continue to increase their knowledge of Spanish with an in-depth study of advanced grammar and vocabulary. There is focus on meaningful conversation in Spanish with increased emphasis on listening, speaking, reading and writing. Students will be expected to write short compositions in Spanish and to read short stories and/or novels. Students are also further exposed to Spanish-speaking people and cultures.			
4140	<i>Spanish III - WH</i> 	11, 12	<i>1 Credit</i>
Prerequisite: Successful completion of Spanish II or Spanish II WH with Teacher Recommendation			
Students continue to increase their knowledge of Spanish with an in-depth study of advanced grammar and vocabulary. There is focus on meaningful conversation in Spanish with increased emphasis on listening, speaking, reading and writing. Students will be expected to write short compositions in Spanish and to read short stories/novels. Students are also further exposed to Spanish-speaking people and cultures. The course's workload and material are more challenging and include additional material (vocabulary, grammar concepts) and advanced activities (unstructured dialogue, more in-depth readings) presented at an increased pace.			
4150	<i>Spanish IV - WH</i>	11, 12	<i>1 Credit</i>
Prerequisite: Successful Completion of Spanish III or Spanish III WH with Teacher Recommendation			
Increased emphasis is placed on oral proficiency as well as written self-expression in the target language. A grammar review is combined with the introduction of the remaining essential grammar topics. Readings are in the target language. More sophisticated writing is expected. Cultural topics are conveyed through the use of authentic resources such as magazines, videos, and internet resources. The course's workload and material are more challenging and include additional material (vocabulary, grammar concepts) and advanced activities (unstructured dialogue, more in-depth readings) presented at an increased pace.			
41500	<i>AP Spanish</i>  	11, 12	<i>1 Credit</i>
Prerequisite: Teacher Recommendation			



SPECIAL PROGRAMS

VIRTUAL HIGH SCHOOL

938/939 *VHS Virtual High School*

11, 12

1 Credit

Prerequisite: Approval from Coordinator and Principal Required

Imagine classrooms without walls, where students are able to attend their classes 24 hours a day, seven days a week. Imagine a nearly limitless selection of courses that are innovative and technologically rich in the areas of core academics, technology, and language minorities. Imagine students working cooperatively online with others from a wide variety of ages, ethnicities, backgrounds, and geographic locations. What you are beginning to imagine is the reality of the Virtual High School. VHS is an opportunity for NAHS students to take over 150 elective courses available over the Internet. The student takes the course during the regular school day and reports to class regularly. The course is a normal class except the instructor is in a classroom in another participating VHS school. There are full and half year courses for students with strong personal initiative and solid academic interests. VHS includes AP, honors, and regular classes. The courses may only be taken as electives and cannot replace a regular course. Solid computer skills are necessary. The course catalogue is available at www.govhs.org.

**In order to register for a second VHS course, student must have a final grade of a "C" or better in their previous VHS course.*

***Seats are limited*

GIFTED EDUCATION

Prerequisite: District Screening and Gifted Individualized Education Program

The courses listed below are available to students who have been identified as mentally gifted. The Gifted Seminar program is designed to expand and build upon learning taking place within the Core Curricular areas. Students receive enrichment and goal support from the Gifted Support teachers who are available for teacher/student conferencing throughout the year in addition to managing the student's annual GIEP. Participation may also include registering for monthly workshops and seminars in varying areas of interest. Students may also choose to register for a semester-long Independent Study course (see course descriptions below).

Gifted Resource Room

ALL GRADES

0 Credit

Students interested in utilizing this resource will have the opportunity to visit the Gifted Resource Room during all lunches. Students may use their time to work independently on academic assignments, conference with a gifted teacher or study collaboratively with gifted peers. This is a resource designed to foster the academic, social, and emotional needs of the gifted learner and to encourage students to develop strong work habits. Gifted teachers are available to work with individual students in connection with their GIEP goal(s) and/or future plans. Gifted Support is available only to students who are identified as gifted.

Gifted Seminar Monthly Workshops

ALL GRADES

0 Credit

As part of the Gifted Seminar program, students may choose from announced workshops and seminars which they feel reflect a personal or academic area of interest. These seminars are designed to expand and build upon learning taking place within the student's regular education classes. Typical offerings include: Cybersurgeons, Film Study, History Seminars, College Search, Drama Study, SAT Prep, Book Club, Math League and Academic competitions. More information on gifted seminar offerings is available on Schoology.

SPECIAL EDUCATION

The courses listed below are adapted from the same titled courses in the Core Curricular areas. Students will receive learning support from special education teachers in order to meet IEP goals while still addressing state standards and the general education Course of Study.

ENGLISH CLASSES with LEARNING SUPPORT:

The goal of these courses is to adapt content allowing access to grade level English curriculum and standards in order to improve student's comprehension, listening, speaking, reading, and writing skills.

0015	English I	9	1 Credit
0025	English II	10	1 Credit
0035	English III	11	1 Credit
0045	English IV	12	1 Credit

MATHEMATICS CLASSES with LEARNING SUPPORT:

The goal of these courses is designed to allow access to grade level curriculum and standards by providing practice of mathematics skills through real world applications.

2065	Pre-Algebra	9	1 Credit
2085	Algebra 1-A	9, 10	1 Credit
20815	Algebra 1-B	10, 11	1 Credit
2205	Geometry	10, 11	1 Credit
2315	Business Math	11, 12	1 Credit

SCIENCE CLASSES with LEARNING SUPPORT:

The goal of these courses is to access grade level science curriculum in the areas of biology and chemistry, and to improve reading, thinking, and study skills.

3005	General Science	9	1 Credit
3015	Biology	9	1 Credit
30615	Conceptual Chemistry	10, 11, 12	1 Credit

INTERVENTION COURSES - SCHEDULED IN COMBINATION WITH REGULAR COURSE SCHEDULE

These courses are designed to provide supplemental and intervention-based instruction for students in addition to their regular course schedule. Placement in these courses is an IEP team decision.

XXX Reading 1 (A/B) 9, 10, 11, 12 1 Credit

Reading Intervention 1 is designed for students with a language-based specific learning disability. This intervention is provided to students who require more intensive, structured literacy instruction utilizing multi-modalities approaches to reading. The focus of Reading 1 is to master the foundational skills of reading. As a structured literacy program based on phonological-coding research, this intervention directly and systematically teaches the structure of the English language. Through the program, students learn fluent decoding and encoding skills to the level of mastery to assist in students' comprehension of texts. Reading 1 is scheduled at the discretion of the IEP team and can span between 1-2 years, depending on students' needs.

XXX Reading 2 (A/B) 9, 10, 11, 12 1 Credit

Reading 2 is a comprehensive, research-based reading program designed for students with a Specific Learning Disability in reading comprehension. The flexible, multi-year program provides students the skills they need to quickly become fluent, competent, and confident readers. Students are exposed to books that are relevant to their lives and the problems they face. Students learn to apply vocabulary, prediction, decoding, fluency, and summarization strategies to various texts. The goal of Reading 2 is to independently integrate the strategies to unfamiliar passages and novels. Reading 2 is scheduled at the discretion of the IEP team and can span between 1-2 years, depending on students' needs.

2055 Foundations of Math 9 1 Credit

Mastery-based, intensive intervention that focuses on the foundational concepts and problem-solving strategies needed for successful entry into algebra that utilizes key foundational skill-building through multisensory strategies.

2065 Pre-Algebra**9****1 Credit**

This course is designed for students with an Individualized Education Program (IEP) that may require extra foundational skills before entering Algebra 1A. In this course, students will review mathematical skills needed for the study of Algebra as well as a brief introduction to Algebra. Topics include the arithmetic of integers, fractions, decimals, and percents; applications of these arithmetic skills to problems involving measurement, percent, ratio, and proportion; and math study skills. The introduction to Algebra consists of operations on signed numbers, algebraic expressions, solving linear equations and an introduction to graphing.

981 Academic Support Center**9, 10, 11, 12****1 Credit**

This class is designed to be individualized for students who have an Individual Education Program (IEP). This class provides support for students with social, communication, academic and transitional needs.

ADDITIONAL COURSES – SCHEDULED IN COMBINATION WITH REGULAR COURSE SCHEDULE**990 Community Based Vocational Training (CBVT)****11, 12 Variable Credit**

This course permits eligible students who have an Individual Education Program (IEP) the opportunity to participate in non-paid vocational training at a District approved community or school district worksite. Students participate in work training that can be up to a half day of participation.

ENGLISH LANGUAGE DEVELOPMENT**0715 English Language Development 1: Entering****9, 10, 11, 12****2 Credits****Prerequisite: Diagnostic Testing**

This course is designed for students with a WIDA Screener or WIDA ACCESS score below 2.0.

The course will emphasize oral language development and introduce content vocabulary and the language skills necessary to be successful in all subject areas by concentrating on the four language domains: listening, reading, speaking and writing, according to the PA Standards for English Language Development and WIDA Standards.

0725 English Language Development 2: Beginning**9, 10, 11, 12****2 Credits****Prerequisite: Diagnostic Testing**

This course is designed for students with a WIDA Screener or WIDA ACCESS score between 2.0 and 3.0. The course focus is on the development of the forms and functions of language including basic writing skills, syntax, academic vocabulary development and reading comprehension. Reading and writing strategies and scaffolds are used to promote the development of academic literacy and language skills in the four language domains according to the PA Standards for English Language Development and WIDA Standards.

0735 English Language Development 3: Developing**9, 10, 11, 12****1 Credit****Prerequisite: Diagnostic Testing**

This course is designed for students with a WIDA Screener or WIDA ACCESS score between 3.0 and 4.0. The course is designed to build on and further develop the forms and functions of language. A public speaking component is included. Skills in the four language domains: listening, reading, speaking and writing are expanded on according to the PA Standards for English Language Development and WIDA Standards.

0745 English Language Development 4: Expanding/Bridging 9, 10, 11, 12**1 Credit****Prerequisite: Diagnostic Testing**

This course is designed for students with a WIDA Screener or WIDA ACCESS score above 4.0. The course builds on and refines the language skills necessary for students to transition into mainstream English classes according to the PA Standards for English Language Development and WIDA Standards. Depending on a student's WIDA ACCESS scores, an Essentials of Writing or Essentials of reading course may be scheduled.

0790 Essentials of Reading and Writing**9, 10, 11, 12****? Credit**

This course is designed for students with a WIDA Screener or WIDA ACCESS score above 4.0. The course focuses on complex grammatical structures and broadening active vocabulary to enhance the writing process and refine different types of writing in

addition to improving reading comprehension skills through various genres of text and expanded study of academic vocabulary. This course is designed to support students in ELD 4.



Central Montco Technical High School (CMTHS) provides a variety of educational programs that prepare students to enter the workforce or to continue their education at colleges, universities, and technical schools. In addition, to occupation specific training, CMTHS promotes the development of civic responsibility, employability skills, leadership, and professionalism. All programs are competency based and designed to meet the needs, skills, interests, abilities, and preferences of the individual student.

“Shaping Today’s Students for Tomorrow’s Careers”

CMTHS is also committed to serving the business and industry sector of the community by providing programs that assist in meeting local, state, and national workforce requirements. At CMTHS, caring and professionally certified staff share their skills while challenging and mentoring their students. Many of the instructors have established high profiles in their fields of expertise prior to becoming teachers. Teachers serve as mentors and respond to individual needs as they extend their support and enthusiasm while preparing students for the future. Students can obtain a variety of state and nationally recognized certifications and professional licenses. **Successful completion of a CMTHS program may support completion of Act 158: Graduation Pathways 3, 4, or 5.**

This guide is a summary of the many programs offered at CMTHS. Please visit the CMTHS [Online Course Selection Guide](#) for the latest and most detailed information about each program including topics of study, which post-secondary schools CMTHS students are attending, occupational outlook, related occupations, uniform and tool requirements, articulation agreements, and photographs.

2022-2023 COURSE SELECTION GUIDE

Allied Health (12th only)
Automotive Repair Technology
Baking & Pastry Arts
Building Trades
Collision Repair/Refinishing Technology
Cosmetology
Culinary Arts & Restaurant Management
Early Childhood Education
Exercise Sciences and Rehabilitation Therapy (11th and 12th only)
Healthcare Sciences
Landscaping Design & Construction
Networking Technology
Public Safety
Teacher Academy (12th only)
Video, Sound, and Music Production
Visual Communications

ADMISSIONS PROCESS

Admission to CMTHS is based upon the recommendation of home school staff and/or IEP team. An application with a copy of the IEP, if applicable, is required before enrollment. The school enrolls students who thrive in a competitive environment. Through careful scheduling with home school counselors, students are able to meet most college entrance requirements and attend CMTHS. We encourage all students and parents to visit our school and meet with the CMTHS school counselor in order to select the most appropriate program and schedule of academic classes. Although our programs are developed around a three-year curriculum, students may enter CMTHS in 10th, 11th, or 12th grade.

CMTHS registration forms are available at the sending school counseling office and at the CMTHS website [Prospective Students Page](#). A PDF version of the student application will download to your computer. You may print and handwrite the application or fill in the blanks using a PDF writing utility program. Please give the application to your home school counselor.

EQUITY STATEMENT

Central Montco Technical High School does not discriminate in its education programs, activities or employment practices based on sex, color, national origin, race, sexual orientation, disability, age, religion, ancestry, political opinions or affiliations, or lawful activity in any employee organization. Central Montco Technical High School provides equal access to the Boy Scouts and other designated youth groups. For information about your civil rights and grievance procedures contact the Equal Rights Coordinator at (610) 277-2301.

DISCLAIMER

Articulation agreements between the Pennsylvania Department of Education / Bureau of Career and Technical Education and post-secondary schools are subject to change as they are annually negotiated and updated. See www.pacollegetransfer.com for more information on articulations.

SPECIAL SERVICES

Student Support Services

- Career portfolio instruction
- School counseling – Career, Academic, and Social & Emotional
- Learning support services

Work-based Studies

- Job Shadowing: An opportunity for students to observe or ‘shadow’ someone in their chosen career in the actual place of work.
- Internships: Paid and non-paid work-based experiences for a specified length of time.
- Clinical Experiences: Non-paid, work-based experiences in hospitals, long term care facilities and day care centers.
- Cooperative Education: Program related placements that are paid, on-the-job training positions and are considered an extension of the classroom. The timeline for placement is individualized and based on student need. Students are trained under the direct supervision of the employer and are assigned a mentor. Students’ progress is monitored and evaluated by the school and the employer on a continual basis.

STUDENT ORGANIZATIONS

SkillsUSA and Health Occupations Students of America (HOSA):

SkillsUSA and HOSA have very active chapters at CMTHS. These programs are nationally recognized organizations in which all students participate. SkillsUSA is a national partnership of students, teachers, and industry working together to ensure America has a skilled work force through leadership training and student governments.

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The National Technical Honor Society:

The National Technical Honor Society is the acknowledged leader in the recognition of outstanding achievement in career and technical education. Over 2000 schools and colleges throughout the U.S. and its territories are affiliated with the Society. Member schools agree that NTHS encourages higher scholastic achievement, cultivates a desire for personal excellence, and helps students find success in today's competitive workplace.

ALLIED HEALTH

(12th grade only)

Course Description: Allied Health Technology is an Honors College Prep course designed for academic students who wish to pursue a career in the healthcare/medical professions. This program is open to 12th grade students who meet the required prerequisites.

This is a program with a combination of subject matter and experiences designed to prepare individuals for entry level employment in a minimum of three related health occupations under the supervision of a licensed health care professional. Instruction consists of core course content with clinical experiences in one or two health related occupations. The core curriculum consists of planned courses for introduction of health careers, basic anatomy and physiology, medical terminology, legal and ethical aspects of health care and communications, and clinical rotations in a hospital or medical setting as required by the curriculum.

Course Content:

- Safety
- Professionalism, Legal, & Ethical Issues
- Communication Skills
- Infection Control
- Emergency Care and Disaster Preparedness
- Human Needs and Development
- Healthcare Provider Skills
- Nutrition & Hydration
- Structures & Functions of the Human Body
- Basic Diseases
- Death & Dying
- Medical Terminology

Admission Criteria:

- Specific GPA

- Specific Math and Science Courses
- Excellent Attendance
- Excellent behavior

Potential State or National Certifications available at CMTHS:

- ASHI (American Safety & Health Institute) CPR Pro and First Aid
- DPW (Department of Public Welfare) Certificate for Patient Care Assistant
- Medical Assisting
- Nurse Assisting and EKG Technician from AMCA (American Medical Certification Association) • CareerSafe OSHA Certification for Healthcare workers

Related Occupations: Physician, Pharmacist, Physician Assistant, Radiologist, Physical Therapist, EKG Technician, Nurse Practitioner, Medical Lab Technician, Surgical Technician

Required Uniform and Materials: Gray Hospital Scrubs, black scrub pants, white leather shoes or sneakers, watch with a second hand, stethoscope recommended.

Additional Requirements: Background Checks, Physical Exam, Updated immunizations.

AUTOMOTIVE REPAIR TECHNOLOGY

Course Description: This is an instructional program that prepares individuals to apply technical knowledge and skills to engage in the servicing and maintenance of all types of automobiles and light trucks. This program includes instruction in the diagnosis and testing, including computer analysis, of malfunctions in and repair of engines, fuel, electrical, cooling and brake systems, drive trains and suspension systems. Instruction is also given in the adjustment and repair of individual components and systems such as fuel system components and air conditioning and includes the use of technical repair information and the procedures for state inspection.

Course Content:

- Orientation and Safety
- Tools/Fasteners
- Suspension and Steering
- Brakes
- Electrical and Electronics Systems
- Engine Repair
- Engine Performance
- Vehicle Maintenance and Reconditioning
- Heating and Air Conditioning

Potential State or National Certifications Available at CMTHS:

- NOCTI Automotive Technology PA
- SP/2: Mechanical Safety, Mechanical Pollution Prevention, Hazardous Training
- NAPA E-learning Course
- Valvoline Engine Oil & Chemicals Certification
- Automotive Service Excellence (ASE) Student Certification
- Certified PA Safety Inspector
- Certified PA Emissions Inspector
- EPA609 Certification

Articulation Agreement: Automobile / Automotive Mechanic Technology / Technician CIP Code: 47.0604
See www.pacollege-transfer.com for program specific articulation agreements.

Related Occupations: Auto Technician, Auto Parts Sales, State Emissions Inspector, General Line Technician, Service Writer, Transportation Inspector

Required Uniform and Materials: A uniform consisting of Dark blue Dickies® pants, leather work boots, and T-shirt are required and available from www.cmths.org. Toolbox, lock, and tools (required tool list provided by the instructor.)

BAKING AND PASTRY ARTS

Course Description: This is an instructional program with specialized classroom and practical work experiences associated with the preparation of breads, crackers, cakes, pies, pastries and other bakery products for retail distribution, consumption in a commercial food service establishment or special functions. Instruction includes making, freezing and handling of baking products, decorating and displaying of baking items at a retail counter display, and packaging of merchandise. This is a comprehensive program designed to prepare individuals for employment in a variety of occupations in the baking industry.

The Baking and Pastry Arts Program is a continuation of the 1st year Culinary Arts/Baking and Restaurant Practices Program which offers a cutting-edge curriculum for all students interested in culinary arts, baking, service management and related fields to study in our state-of-the-art kitchen and restaurant. Students have the opportunity to demonstrate skills at our in-house restaurant and catering program while providing services to residents of the local community. We also offer a full-service bakery with all aspects run entirely by our students.

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Course Content:

- Introduction to the Hospitality & Baking Industry
- Sanitation & Safety
- Business & Math Skills
- Baking Preparation
- Baking Fundamentals
- Purchasing, Receiving, Inventory & Storage
- Nutrition

- Baking Planning
- Human Relations Skills

Potential State or National Certifications Available at CMTHS:

- NOCTI Retail Commercial Baking
- ServSafe Food Handler Certification
- ServSafe/Manager Food Safety Certification

Articulation Agreement: Baking & Pastry Arts/Baker/Pastry Chef - CIP 12.050.
See www.pacollege-transfer.com for program specific articulation agreements.

Related Occupations: Pastry Chef, Line Cook, Bakery Manager/Owner, Banquet Chef, Caterer, Baker, Bread Maker, Food Stylist.

Required Uniform and Materials: Chef coat and pants, apron, and hat. Uniforms are available at www.cmths.org.

BUILDING TRADES

Course Description: This is an instructional program that prepares individuals to apply technical knowledge and skills in the maintenance and repair of residential and commercial buildings. Instruction includes the basics of carpentry, electrical, millwork, plumbing, painting, minor sheet metal, masonry, tile setting, heating, and OSHA safety standards. The Building Trades Program is an excellent option for students interested in a career related to residential and commercial construction.

Course Content:

- Safety
- Building & Property Maintenance
- Carpentry & Repairs
- Portable Power Tools
- Tools and Machine Maintenance
- Structures: Roofs, Floors, Stairs, Doors, Windows, Walls
- Masonry: Concrete, Floor and Wall Tile,
- Residential Electrical Circuits
- Residential Plumbing
- Finishing Materials
- Environmental Control Systems

Potential State or National Certifications Available at CMTHS:

- NOCTI Building/Property Maintenance PA
- OSHA 10-hour Certification

- Gastite Certification
- Tracpipe Certification
- NCCER Credentials (various trades)
- Ladder Safety Certification

Articulation Agreement: Building/Property Maintenance & Manager—CIP Code: 46.0401
See www.pacollege-transfer.com for program specific articulation agreements.

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Related Occupations: Carpenter, Cement Mason, Construction Manager, Electrician, HVAC Technician, Plumber, General Contractor, Architect, Construction Engineer, Job Site Supervisor.

Required Uniform and Materials: Building Trades black T-shirt /Sweatshirt are available at cmths.org. Student must wear leather work boots, hard hat, and safety glasses. Students must have a tool bag, tool belt, and tools. (A list will be provided by the instructor).

COLLISION REPAIR/REFINISHING TECHNOLOGY

Course Description: This is an instructional program that prepares individuals to apply technical knowledge and skills to repair damaged automotive vehicles such as automobiles and light trucks. Students learn to examine damaged vehicles and estimate cost of repairs; remove, repair and replace upholstery, accessories, electrical and hydraulic window and seat operating equipment and trim to gain access to vehicle body and fenders; remove and replace glass; repair dented areas; replace excessively damaged fenders, panels and grills; straighten bent frames or unibody structures using hydraulic jacks and pulling devices; and file, grind and sand repaired surfaces using power tools and hand tools. Students refinish surfaces by painting with primer and a finish coat.

Collision Repair Technicians are skilled workers who repair minor and major defects such as scratches, chips, dents, surface rust and rust outs. The technician also welds torn metal, replaces damaged parts, and estimates repairs. A person in this trade should have the desire to work with metal and finishing metals such as paints, solvents, and waxes.

Course Content

- Vehicle Design & Construction
- Panel Replacement & Alignment, Trim and Hardware
- Metal Finishing
- Body Fillers
- Glass & Hardware
- Structural Component Repair & Damage Analysis
- Structural Straightening,
- Corrosion Protection
- Welding
- Cutting Processes
- Surface Preparation

- Refinishing, and Equipment
- Automotive Finishes, Surface Preparation
- Refinishing Equipment and Operations
- Detailing
- Estimating Damage Analysis
- Plastic Repair
- Restraint Systems

Potential State or National Certifications Available at CMTHS:

- NOCTI Collision Repair and Refinishing Technology
- Hazardous Material Storage and Disposal
- S/P2 Safety and Pollution Prevention
- I-CAR Certification(s)
- PPG Online Training - Refinishing Sheet Metal and Finishing Sheet Metal

Articulation Agreement: Autobody/Collision & Repair Technology Technician - CIP Code: 47.0603
See www.pacollege-transfer.com for program specific articulation agreements.

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Related Occupations: Frame Equipment Specialist, Repair Technician, Glass Specialist, Insurance Estimator, Customizing Specialist, Auto Body Technician, Industrial Spray Painter, Sales/Auto Body/Parts, Car Detail Specialist, Auto Refinisher Technician.

Required Uniform and Materials: Collision Repair printed T-shirt, blue or tan work pants, and leather work boots are required. Charcoal Filter Spray Respirator (see instructor). Uniforms are available at www.cmths.org.

COSMETOLOGY

Course Description: The Cosmetology program prepares individuals to cut, trim, and style scalp, facial, and body hair; apply cosmetic preparations; perform manicures and pedicures; massage the head and extremities and prepare for practice as licensed cosmetologists in specialized or full-service salons. Includes instruction in hair cutting and styling, manicuring, pedicuring, facial treatments, shampooing, chemical applications, esthetics, shop management, sanitation and safety, customer service, and applicable professional and labor laws and regulations.

Course Content: The basic course requires 1250 hours of study and takes three years to complete where students learn the theory of anatomy of the head, face, hands and feet, chemicals, coloring, sterilization, sanitation, and safety precautions in the field. Students are also trained in the art of customer service.

The Cosmetology program teaches the most scientific approach in hair designing, manicuring and esthetics today. Students are trained in specializations such as nail sculpturing, skin care, hair cutting, coloring, styling, permanent waving, and ethnic styling. Students may participate in our internship program, which consists of spending several days a week in our own salon during school hours. Students can demonstrate skills while working towards their goals for licensing requirements in the state of Pennsylvania.

Potential State or National Certifications Available at CMTHS:

- NOCTI Cosmetology/Cosmetologist PA
- Cosmetologist PA License
- Barbicide Certification
- Cosmetology Teacher
- Nail Technician
- Esthetic Certification
- Milady RISE Infection Control Certification
- 650 Hours towards Barber License after completion of PA Cosmetology License

Articulation Agreement: Cosmetology/Cosmetologist - CIP Code: 12.0401
See www.pacollege-transfer.com for program specific articulation agreements.

Related Occupations: Hairstylist, Esthetician, Manicurist, Cosmetologist, Shampoo Technician, Stylist Assistant, Color Specialist, Make Up Artist, Retail Specialist, Salon Owner, Salon Manager.

Required Uniform and Materials: Black professional smock, closed toe shoes with rubber soles. Students will need to order a cosmetology kit – see instructor for details.

CULINARY ARTS & RESTAURANT MANAGEMENT

Course Description: This is an instructional program that prepares students for employment related to institutional, commercial, or self-owned food establishments or other food industry occupations. Instruction and specialized learning experiences include theory, laboratory and work experience related to planning, selecting, preparing, and serving of quantity food and food products; nutritive values; use and care of commercial equipment; safety; and sanitation precautions. Instructional skills are provided to individuals desiring to become employed in all areas of the food service industry at entry level.

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The Culinary Arts and Restaurant Practices Program offers a cutting-edge curriculum for all students interested in culinary arts, baking, service management and related fields to study in our state-of-the-art kitchen and restaurant. Students have the opportunity to demonstrate skills at our in-house restaurant and catering program while providing services to residents of the local community.

Course Content:

- Safety and Sanitation
- The Food Industry
- Purchasing, Receiving, and Storage
- Cold Food Preparation (Garde Manger)
- Knife Skills
- Food Service Tools and Equipment
- Standardized Recipes and Measurement

- Nutrition
- Breakfast Foods
- Vegetables & Fruits/ Pasta, Grains, and Potatoes
- Seasoning and Flavoring
- Stocks, Soups, and Sauces
- Meats, Poultry, and Seafood
- Baking and Pastry Skills
- Menus
- Back of the House Operations and Front of the House Operations
- Food Service Information Technology
- Hot Foods Preparation

Potential State or National Certifications Available at CMTHS:

- NOCTI Culinary Arts Level 2 Cook
- Heartsaver CPR
- Heartsaver First Aid
- ServSafe Food Handler Certification

Articulation Agreement: Institutional Food Worker - CIP Code: 12.0508
See www.pacollege-transfer.com for program specific articulation agreements.

Related Occupations: Executive Chef, Line Cook, Restaurant Manager/Owner, Banquet Chef, Caterer, Dietician, Television Chef, Food Wholesaler, Food Stylist, Culinary Arts Educator, Server/Hospitality.

Required Uniform and Materials: Black chef coat and pants, apron, hat, and black work shoes. Uniforms are available at www.cmths.org.

EARLY CHILDHOOD EDUCATION

Course Description: This program prepares individuals for a variety of occupations in childcare and guidance often under the supervision of professional personnel in child or day care centers. This program includes instruction in growth and development; nutrition; program planning and management; safety; behavior guidance; play activities; child abuse and neglect; parent, child personal relationships; learning experiences for children; and laws, regulations and policies relating to childcare services.

The Early Childhood Education program is designed for 10th, 11th and 12th grade students who have a sincere desire to teach and care for young children. It prepares students for either an entry-level position in the childcare industry or to pursue a college degree in early childhood education or elementary education. Students observe and interact in a variety of early childhood settings including elementary schools, childcare centers, Head Start programs, and early intervention programs as well as our own on-site preschool, "Little Hands."

Course Content:

- Orientation and Safety
- Professionalism
- Health and Safety
- Learning Environment (Physical Space)
- Child Development (Emotional, Social, Physical, Intellectual, Language)
- Classroom Management and Positive Guidance
- Standards, Curriculum, and Assessment
- Curriculum Development
- Learning Activities and Experiences
- Program Partnerships
- Clinical Experience

Potential State or National Certifications Available at CMTHS:

- Mandated Reporter Training
- Health and Safety Training (Through Better Kid Care)
- First Aid/ CPR
- CDA Ready Certification (see Steps sheet for Explanation)
- FEMA IS:366.A- Planning for the Needs of Children in Disasters

Articulation Agreements: Childcare & Support Services Management CIP Code: 19.0708
See www.pacollege-transfer.com for program specific articulation agreements.

Related Occupations: Teacher's Assistant, Childcare Assistant, Nanny, Assistant Group Supervisor, Family Home Childcare Provider, Early Childhood Teacher, Elementary School Teacher.

Required Uniform and Materials: Burgundy smock/jacket that can be ordered at www.cmths.org.

Additional Requirements: Clearances (3), Physical Exam, and 1-Step Mantoux (Tuberculosis) Test

EXERCISE SCIENCES AND REHABILITATION THERAPY

(11th and 12th grade only)

Course Description: The Exercise Sciences and Rehabilitation Therapy program is a 2-year program for 11th and 12th grade students and designed for a number of technical fields related to kinesiology. Students will learn to design safe and effective exercise prescriptions, conduct individual exercise programs, and fitness testing. Students with an eager aptitude for the sciences, specifically Biology, will thrive in this program.

Instruction includes theory and applications related to strength training and high intensity training, weight management,

nutrition, resistance training, exercise programming, exercise physiology, mental health and wellness, pathophysiology, athletic training, injury recognition and management, rehabilitation and restorative care, medical terminology.

Students will prepare for employment in a wide variety of settings that includes assisted care living facilities, fitness clubs, hospitals, corporate wellness programs, strength and conditioning, and clinical rehabilitation programs. In addition, the program serves as a strong foundation for students wishing to pursue advanced degrees in the field of exercise science or enter professional disciplines such as physical or occupational therapy. Specific healthcare certifications, and dual-enrollment college credit and clinical opportunities are included in the program.

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Course Content:

- Anatomy and Physiology
- First Aid and CPR
- Evaluation and Assessment of Injuries
- Taping and Bracing
- Therapeutic Exercise and Restorative Care
- Nutrition and Weight Management
- Strength and Conditioning
- Medical Terminology and Documentation
- Exercise Physiology

Potential State or National Certifications Available at CMTHS:

- Personal Training Certification (ACSM)
- CareerSafe OSHA Certification for Healthcare workers
- Emergency Care and Safety Institute (ECSI) Certifications for the following:
 - First Aid
 - Healthcare Provider CPR
 - Sports First Aid and Injury Prevention
 - Standard First Aid, CPR, and AED

Articulation Agreement: Rehabilitation Aide - CIP Code: 51.2604

See www.pacollege-transfer.com or program specific articulations agreements.

Related Occupations: Physical Therapist, Physical Therapy Assistant, Occupational Therapist, Athletic Trainer, Personal Trainer, Nutritionist, Strength and Conditioning Coach, Speech Language Pathologist, Physical Therapy Aide

Required Uniform and Materials: Athletic sneakers, appropriate athletic pants, watch with a second hand or stopwatch. **Additional Requirements:** Background Checks, Physical Exam, and Immunizations.

HEALTHCARE SCIENCES

Course Description: This is a program with a combination of subject matter and experiences designed to prepare individuals for entry level employment in a minimum of three related health occupations under the supervision of a licensed health care professional. Instruction consists of core course content with clinical experiences in one or two health related occupations. The core curriculum consists of planned courses for introduction of health careers, basic anatomy and physiology, medical terminology, legal and ethical aspects of health care and communications, and at least three planned courses for the knowledge and skills for the occupational area such as medical assisting, ward clerk, nursing assisting, etc.

The Healthcare Sciences Program offers a core academic curriculum and skill-based competency tasks linked to careers in the health care industry. This program provides the knowledge base for Health Occupations careers, as well as preparing the student to enter the health care system as a competent assistant to the health professional.

The clinical experience the students receive is an integral part of the program; providing the students with the laboratory setting to perfect their procedures and hands-on experience in local health care agencies as well as helping them to develop communication skills that are essential in today's job market

Course Content:

- Safety, Professionalism, Legal, & Ethical Issues
- Communication Skills
- Infection Control
- Emergency Care and Disaster Preparedness
- Human Needs and Development

- Healthcare Provider Skills
- Nutrition & Hydration
- Structures & Functions of the Human Body
- Basic Diseases
- Death & Dying
- Medical Terminology

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Potential State or National Certifications Available at CMTHS:

- AHA (American Heart Association) Healthcare Provider BLS CPR
- DPW (Department of Public Welfare) Certificate for Patient Care Assistant
- Medical Assisting
- Nurse Assisting and EKG Technician from AMCA (American Medical Certification Association) •
CareerSafe OSHA Certification for Healthcare workers

Articulation Agreement: Health/Medical Assisting Services - CIP Code: 51.0899
See www.pacollege-transfer.com or program specific articulations agreements.

Related Occupations: Physical Therapist, Radiological technologist, Surgical Technician, Physical Therapy Assistant, Occupational Therapist, Home Health Aide, Certified Nurse Aide, Respiratory Therapist, Pharmacy Technician, Veterinary Assistant, Registered Nurse, Nurse Practitioner, Licensed Practical Nurse, Physician Assistant, Physician.

Required Uniform and Materials: Turquoise scrub top, black scrub pants, white or black leather shoes/sneakers, watch with a second hand.

Additional Requirements: Background Checks, Physical Exam, and Immunizations.

LANDSCAPE DESIGN & CONSTRUCTION

Course Description: This is an instructional program having a combination of organized subject matter and practical experiences that generally prepares individuals to produce, process and market plants, shrubs and trees used principally for ornamental, recreational and aesthetic purposes and to establish, maintain and manage horticultural enterprises. Instruction emphasizes knowledge, understanding and application important to establishing, maintaining and managing horticultural enterprises such as arboriculture, floriculture, greenhouse operation and management, landscaping, nursery operation and management, and turf management.

The Landscape Design & Construction Program offers hands on learning that prepares students in all phases of landscape/hardscape design and management. With an emphasis on residential home installation, students will learn the proper use of hand and power tools, skid loaders, construction materials, measuring and estimating, blueprint and plan reading, and job site safety.

Course Content:

- Safety
- Safe and Proper Plant Healthcare Practices
- Basic Botany
- Horticulture Business Operations
- Soils and Fertilizer
- Sustainable Horticulture
- Horticulture Technology
- History and Current Status of Horticulture
- Plant Identification
- Horticultural Careers, Opportunities, and Pathways

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Potential State or National Certifications Available at CMTHS:

- Bobcat Skid-Steer Loader Operator Training Course Certificate
- Applied Horticulture PA
- OSHA Certification - Agriculture
- Pennsylvania Pesticide Applicator Certification

Articulation Agreement: Applied Horticulture / Horticulture Operations, General - CIP Code: 01.0601.
See www.pacollegetransfer.com for program specific articulations agreements.

Related Occupations: Landscaper, Groundskeeper, Landscape Architect, Supervisor of Landscaping, Soil and Water Conservationist, Nursery Worker, Nursery/Greenhouse Manager and Sales, Independent Contractor, Construction Manager.

Required Uniform and Materials: Dark green CMTHS shirt, optional CMTHS sweatshirt, jeans or work pants, and leather work boots. Uniforms are available at www.cmths.org.

NETWORKING TECHNOLOGY

Course Description: This is an instructional program that focuses on the design, implementation and management of linked systems of computers, peripherals and associated software and prepares individuals with the technical skills required to support networks and network users. This program includes instruction in networks technologies and standards: system design, architecture, operating systems, security, communications protocols, client support, messaging services, network management, troubleshooting and server optimization.

The Networking Technology program at Central Montco Technical High School is intended to meet the needs of the technology industry both now and in the future. With the Internet growing continually, there are many opportunities available to Networking Technology students. With an education in infrastructure-level networking, students are highly sought after by employers.

Course Content:

- Personal and Environmental Safety
- Computer Hardware
- Troubleshooting, Repair, and Maintenance
- Operating Systems and Software
- Network Technologies
- Network Media and Topologies
- Network Devices
- Network Management
- Network Tools and Troubleshooting
- Security Fundamentals
- Communication and Professionalism

Potential State or National Certifications Available at CMTHS:

- NOCTI Computer Systems Networking PA
- TestOut Ethical Hacker Pro, Server Pro 2016, Client Pro, PC Pro, Network Pro, Security Pro, Cyber Defense Pro
- Fortinet Network Security Expert (NSE)
- Cisco CCENT (Certified Cisco Entry Network Technician)
- Cisco CCNA (Certified Cisco Network Associate)
- CompTIA A+ (Prep)

- CompTia Network+ (Prep)
- C-Tech Copper, Fiber and Smart Home- Home Entertainment certifications
- OSHA Certification

Articulation Agreement: Computer Systems Networking & Telecommunications—CIP Code: 11.0901
See www.pacollege-transfer.com for program specific articulations agreements.

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Related Occupations: Desktop Support Specialist, IT Support Specialist/Analyst, Helpdesk Technician, Network Administrator, Security Specialist, IT Systems Administrator, Ethical Hacker, Information Security Analyst, IT Security Consultant, Information Security Manager, Penetration Tester, Systems Engineer.

Required Uniform and Materials: Students are required to wear a CMTHS black polo shirt with long pants. Uniforms are available at www.cmths.org.

PUBLIC SAFETY

Course Description: This is a program that prepares individuals to perform the duties of police and public security officers, including patrol and investigative activities, traffic control, crowd control and public relations, witness interviewing, evidence collection and management, basic crime prevention methods, weapon and equipment operation and maintenance, report preparation and other routine law enforcement responsibilities.

Course Content:

- Crime Scene Management
- Use of Force
- Criminal Law and Procedures
- Health Issues
- Police Concepts and Skills
- Corrections Concepts and Skills
- Court Systems
- Communications
- Security: National, International, and Local
- Special Populations

Potential State or National Certifications Available at CMTHS:

- NOCTI Criminal Justice
- First Aid
- CPR and AED
- Protective Safety Systems
- Defensive Tactics

- Fire Extinguisher Certificate
- FEMA: Introduction to Incident Command System
- Ladder Safety Training Certification

Articulation Agreement: Criminal Justice / Police Science—CIP Code: 43.0107
See www.pacollege-transfer.com for program specific articulation agreements.

Related Occupations: Police Officer, Municipal or State Police Officer, Security Officer, Corrections Officer, Waterways Patrol Officer, Game Protector, Safety Supervisor, Code Enforcement Officer, Safety Inspector, Industrial Hygienist, Environmental Protection Officer.

Required Uniform and Materials: Royal collared shirt, Royal blue pocket tee shirt, black dress pants/trousers, plain black belt, black shoes or boots, gray shorts or sweatpants, running shoes, (for physical training). Uniforms are available at www.cmths.org.

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TEACHER ACADEMY

(12th grade only)

Course Description: High school seniors aspiring to be educators develop the skills to be 21st century ready in the college preparatory Teacher Academy program. The course consists of 7.5 hours/week divided between classroom instruction and internship experience with certified teachers at all grade levels, which results in approximately 180 hours of instruction and 90 hours of internship experience. The field experiences are with certified teachers at all grade levels. This is a one-year program.

Admission Criteria:

- Must have applied or intend to apply to a two or four-year college with the goal of earning a degree in education.
- All required clearances must be attainable.
- Must be in good academic standing to graduate.
- Must complete the Teacher Academy (CMTHS) application.
- Must have a counselor recommendation specifically to enter this program.
- Must complete a preliminary interview screening with CMTHS staff.

Course Content: The Teacher Academy is a program for high school seniors interested in pursuing a career in the field of education. In addition to earning 2 high school credits for the program, students have the option to potentially enroll in a dual enrollment and earn college credits. The Academy provides an introduction to the knowledge and skills required to work in the teaching profession in the 21st Century. The Teacher Academy program addresses instruction in all subjects on all grade levels with particular attention devoted to:

- History and philosophy of education
- Legal and ethical issues in education
- Effective teachers and classrooms
- Meeting the needs of exceptional learners
- Integration of technology in the classroom
- Student diversity
- Teacher preparation and entering the profession
- Developing a theory of practice

The course consists of 7.5 hours/week divided between classroom instruction and internships with certified, tenured teachers at all grade levels, resulting in approximately **160 hours of instruction and 95 hours of internship** (field site) experience. Student internships consist of 30+ hours in PreK-4 classrooms; 30+ hours in grades 4-8; and 30+ hours in a grade of their choice. Instruction is both teacher and student led; active individual and group participation are expected of each student. In addition, several guest speakers from the educational field will present throughout the year. Students will also participate in relevant field trips. As a culminating project, students complete a portfolio based on current college format and participate in an interview conducted by current and former administrators and human resources staff.

Related Occupations: Early Childhood Teacher, Elementary School Teacher, High School Teacher, Math Specialist, Reading Specialist, Paraeducator, School Counselor, School psychologist, Special Education Teacher or Supervisor, School principal or Assistant Principal, Teacher’s Assistant.

Required Uniform and Materials:

- At CMTHS:
 - Blue Teacher Academy Polo
- On Internship Assignments:
 - Professional attire should be worn to all internship assignments.
 - Navy, grey, or black blazer; dress pants; skirts; button down shirts; blouses (no T-shirts); tie (men), dress shoes (no sneakers or open sandals)

VIDEO, SOUND, AND MUSIC PRODUCTION

Course Description: This program prepares individuals to apply knowledge and skills in the field of multimedia technology. Multimedia technology specialists provide services in a variety of areas associated with typography, web and graphic design, video, audio, television production, animation, and photography.

The Video, Sound, and Music Production Program is a hands-on course where students acquire skills in video and audio production through the operation of state-of-the-art digital video and audio studio production equipment.

Students will be able to combine their artistic creativity with technological knowledge to produce original video and audio productions such as newscasts, music videos, short films, music recording projects, and audio / video post production projects.

In this field students will work in exciting environments and work settings that include television and radio stations, sporting events, concerts, film sets, recording studios, and theaters.

This program prepares students to apply technical knowledge and skills to the production of sound recordings as either

finished products or as components of traditional or emerging music productions, film and video productions, live sound productions, broadcasts, video game productions, or mixed media productions.

Course Content:

- Graphic Design
- Media Composition
- Photography
- Web Media
- Video, Cinematography, and Audio Production
- Professional Practices
- Operating sound and mixing boards
- Recording, mixing, and reproducing sound effects, music, and voices
- Synchronize voices and sounds for movies and television programs
- Edit live recordings with industry technology
- Set up, operate, maintain, and repair broadcast gear
- Monitor and adjust equipment to ensure visual quality
- Troubleshoot equipment
- Edit video recordings with industry technology

Potential State or National Certifications Available at CMTHS:

- NOCTI Communication Technologies PA
- OSHA Certification

Articulation Agreement: Communications Technologies/Technicians & Support Services — CIP Code: 10.999 See www.pacollege-transfer.com for program specific articulation agreements.

Related Occupations: Video Producer, Audio Producer, Broadcast Technician, Sound Engineer, Foley Artist, Recording Engineers, Sound Mixers, Field Technicians, Camera Operators, Cinematographer, Videographer, Sound and Video Editor

Required Uniform and Materials: Button up work shirt. Two terabyte (2TB) External Hard Drive, over-the-ear headphones (no earbuds).

Course Description: This is a program in the applied visual arts that focuses on the general principles and techniques for effectively communicating ideas and information, and packaging products, in digital and other formats to business and consumer audiences, and that may prepare individuals in any of the applied art media.

Students in the Visual Communications program pursue studies in traditional media such as watercolor, pencil drawing, pen and ink, and air brush with an emphasis on illustration. Work is also done in advanced color theory and design theory.

As reflected in the trend in the graphic design field, there is an ever-increasing emphasis on computer-generated art. Students work with Macintosh computers using such programs as Illustrator, Photoshop, InDesign, and 3D Software.

Course Content:

- Orientation
- Safety
- Drawing and Illustration
- Color Theory and Application
- Digital Imaging
- Design, Layout, and Production
- Typography
- Digital Photography
- Professional Practices

Potential State or National Certifications Available at CMTHS:

- NOCTI Commercial and Advertising Art PA
- OSHA Certification

Articulation Agreement: Commercial & Advertising Art— CIP Code: 50.0402
See www.pacollege-transfer.com for program specific articulation agreements.

Related Occupations: Digital Designer, Multimedia Designer, Print Designer, App and Digital Platform Designer, Web Design and SECO, Social Media Design, Online Producer, Internet Marketing Consultant, Photography and Video, Traditional Arts, Fine Artist, Illustrator, Fashion Designer.

Required Uniform and Materials: Students are required to purchase a supply kit through CMTHS at an additional cost consisting of sketchbook, pencils, markers, brushes, toolbox, portfolio book, paint trays, 5GB USB flash drive, and black work shirt.

The Norristown Area School District does not discriminate in employment or educational programs, services or activities, based on race, color, national origin, sex, handicap, or age in accordance with State and Federal laws including Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, Title VI of the Civil Rights Act of 1964, the Age Discrimination Act of 1975, and the Americans with Disabilities Act. Inquiries or complaints should be directed to the Director of Human Resources, Norristown Area School District, 401 N. Whitehall Road, Norristown PA 19403, (610) 630-5000.