

# **NORRISTOWN AREA HIGH SCHOOL**



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**Revised March 1, 2010**

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**PROGRAM of STUDIES**

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**Revised March 1, 2010**

## **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 our Small Learning Communities (SLCs) for students in Grades 10-12 as well as descriptions of our course offerings.

Our mission is to provide accelerated interventions in order 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.

The process begins with the selection of a Small Learning Community. For the 2010-2011 school year, the process will be different than the previous five school years. Students in Grade 9 will be a member of one of three 9<sup>th</sup> grade teams. During the course of the school year, they will have the opportunity to rotate among all six of the SLC choices so that they will be able to make a thoughtful, informed decision about their preferences upon the conclusion of their first year at NAHS. While SLCs are designed to address areas of student interest rather than career paths, students will realize the most benefit from their SLC affiliation if they remain in that SLC for their remaining three years of high school. There is a procedure for students to elect a new SLC at the end of each school year, but this, too, must be a thoughtful decision and requires parent/guardian support.

Once a student selects an SLC in Grade 10, much of the remaining path to graduation has been set. Our program puts a greater emphasis on challenging core courses and less emphasis on elective courses. 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.

In addition, all of our students are members of a Family Advocacy group. Each week, approximately 15 students meet with a member of the faculty who has been designated as their Family Advocate. The primary focus of these meetings is to help students understand and monitor their path to graduation and to link those students who need additional resources with them. Parents and guardians can also monitor student progress through our Home Access site which is available through our website at <http://www.nasd.k12.pa.us>

We wish you a successful four years of learning and achieving new heights!

Sincerely,

**Rachel Holler, Ed.D.**  
Principal

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## **GENERAL INFORMATION**

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## GENERAL INFORMATION

### Admission Requirements

To be eligible for admission to Norristown Area High School, a student will have satisfactorily completed eighth grade as described and mandated by the Department of Education of the Commonwealth of Pennsylvania. Registration information is available in the guidance office.

### 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. However, we encourage students to work to their maximum potential and will support requests for students to participate in more rigorous coursework. Parents are encouraged to contact the present subject area teacher should there be a question about their student's subject level placement.

### 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, Counselors, and Family Advocates 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. Norristown Area High School builds its master schedule and projects staff needs on the basis of courses selected by our approximately 2000 students. It is very difficult to make changes to individual programs.

***No change to the program contract is permitted.*** 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.

### Instructional Cycle

Norristown Area High School offers an instructional cycle of two days, using the letters A and B to designate the rotation. Each day consists of four instructional blocks, and students will be enrolled in all four blocks each day.

Student programs not including the required number of instructional periods per cycle, per year, will result in the assignment of subjects(s) by the counselor.

### Advanced Placement 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. Fee waivers are available to reduce the expense of these exams; however, each exam would have a maximum charge of \$85. Scores of 3, 4, or 5 on these exams generally translate into college credit at most institutions of higher learning.

# GRADUATION REQUIREMENTS

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

*“Requirements shall include course completion and grades, completion of a culminating project, and results of local assessments aligned with the academic standards. The purpose of the culminating project is to assure that students are able to apply, analyze, synthesize, and evaluate information and communicate significant knowledge and understanding.”*

*-State Board of Education, Chapter 4*

## Course Requirements

Our curriculum addresses the requirements of Chapter 4 and Pennsylvania Standards in the courses required for graduation. Students who have satisfactorily completed a minimum of 28 credits will have demonstrated proficiency in the core standards. Students who do not obtain proficiency on the PSSA must show proficiency through satisfactory completion of the Norristown Area School District’s required courses in reading and mathematics and proficiency on PSSA-aligned local assessments. Courses that meet for a full school year earn one (1) credit; semester courses earn 0.5 credit. Graduation requirements include coursework as outlined below:

<b>Discipline Area</b>	<b>Courses</b>
English (e.g., I*, II*, III, IV) *these courses meet on A & B days	4
Mathematics (e.g., Algebra I*, Algebra II*, Geometry*, Mathematics Elective) *these courses meet on A & B days for 9 <sup>th</sup> and 10 <sup>th</sup> graders	4
Social Studies (e.g., United States History, World History, United States Government)	4
Science (e.g., Physical, Biology, Chemistry, Earth & Space, Environmental)	4
Wellness/Physical Education	1
Thematic Electives (as required by each Small Learning Community)	6
Additional Electives	5

*Further elective courses may be needed to earn the minimum of 28 credits that are required for graduation.*

Exceptions to the course requirements, which are rare, are determined as follows: the Guidance Counselor recommends an exception (exemption, substitution) to a review panel made up of the remaining Counselors, a Vice-Principal, and the Principal. Successful exceptions are recorded for the purpose of establishing past practice. There is no appeal procedure.

## Remediation

Students who do not demonstrate proficiency in (pass) any required course, or fail to earn the prescribed number of credits for grade promotion or graduation will be required to attend summer school in almost all cases (fee required, two course maximum). Certain courses may be made up through an approved correspondence course program. These courses are primarily for juniors and seniors and require prior approval from your Guidance Counselor. It is important to note that the Program of Studies does not allow for students to schedule make-up classes during the regular school year. As a result, students may be required to return to the high school for a fifth year in order to satisfy graduation requirements.

## Graduation Project

As indicated in PA Chapter 4 Regulations, all seniors must have completed a graduation project. Beginning with the 2011-2012 school year, the Graduation Project will be introduced to students in grade 10 in Family Advocacy and time and guidance will be provided in FA periods through the completion of the project in the spring of the junior year or the fall of the senior year.

## Promotion Requirements

Students must earn at least the required number of credits each year in order to make progress toward graduation from high school in four years, as indicated in the chart below. Credit for a subject is awarded at the conclusion of a course after the student has satisfactorily completed all the requirements of that subject; demonstrated proficiency on local or state standards aligned assessments as appropriate; and satisfied all instructional obligations with a passing final grade. High school promotion as related to the earning of a diploma differs from promotion in the lower grades since it is based on the accumulation of credits. The following requirements must be met at the conclusion of summer school for students to advance to the grade indicated:

Minimum Credits required	to enter Grade
6.0	10
12.0	11
20.0	12
28.0	to graduate

*As per Board policy, students must have met all graduation requirements by the end of their Senior final exams in order to be eligible to participate in Commencement Exercises*

## 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.

## Transfer Credits (continued)

Beginning with the 2008-2009 school year, transfer students to Norristown Area High School will be awarded weighted honors quality points towards calculation of their GPA according to the following guidelines:

- Grade 9 will receive adjusted quality points for any **four** weighted honors classes. Additional weighted honors classes will be identified as such on the transcript.
- Grade 10 will receive adjusted quality points for any **four** weighted honors classes. Additional weighted honors classes will be identified as such on the transcript.
- Grade 11 will receive adjusted quality points for any **five** weighted honors classes. Additional weighted honors classes will be identified as such on the transcript.
- Grade 12 will receive adjusted quality points for any **six** weighted honors classes. Additional weighted honors classes will be identified as such on the transcript.

## College-Bound Athletes

Students should be aware that the National Collegiate Athletic Association (NCAA) maintains strict criteria for the college admission of athletes. Please consult with your Counselor and Athletic Coach concerning these requirements and how they affect your acceptance to the college of your choice.

## Course Prerequisites

Many courses, especially Advanced Placement or Weighted Honors courses, have prerequisites listed in the Program of Studies. Students may opt into these courses without the recommendation of the teacher or the achievement of the specified letter grade, provided they have parent signature/approval. If students do not demonstrate success with at least a “C” in any Advanced Placement or Weighted Honors course that has been taken against the advice of the teacher or guidance counselor, there will be a *one-year moratorium* on taking another AP or WH course in that subject area. The purpose of this policy is to ensure that students have appropriate grades and demonstrated success on their transcripts in order to successfully apply and be accepted to colleges of their choice. Once a student has opted into an Advanced Placement or Weighted Honors course, a change to a different course will not be made during the school year.

## **GRADE CALCULATION**

### **Grade Point Average (GPA) and Class Rank**

Grade point average is calculated at the end of each school year. It is computed by assigning points to the final grade of each course taken, adding the points for all courses taken, and then dividing that total number of points by the total number of credits attempted. The standard grade point scale is as follows:

- A = 4 points
- B = 3 points
- C = 2 points
- D = 1 point
- F = 0 points

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.

### **Weighted Grades**

Students receive a weighted grade for successfully completing courses identified as Weighted Honors (WH) or Advanced Placement (AP).

Final Grades for courses in these categories are computed as follows:

- A = 5 points
- B = 4 points
- C = 3 points
- D = 2 points
- F = 0 points

### **Academic Honors**

Three commendations are available to students following each marking period:

- First Honors: all grades 90 or higher
- Second Honors: all grades 80 or higher
- Third Honors: overall average of 80 with no grade lower than 70

In addition, tenth grade students who earn honor roll distinction for their first 7 marking periods, and eleventh grade students who earn honor roll distinction for their first 11 marking periods earn special recognition at the Underclass Awards Program.

### **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.

## SAMPLE SCHEDULES

Once a student registers for a program, this becomes a contract. Every effort will be made to provide students with their selections. However, certain courses may be cancelled due to insufficient enrollment; others may present a conflict with courses the student has requested, or required core subjects. After students have verified their selections, requests for change will not be honored other than to correct scheduling process problems (e.g., account for unanticipated situations such as summer school or course failure) or to correct an error. For each grade level, three sample schedules are shown below: rigorous, academic, vocational.

### GRADE 9

<i><b>RIGOROUS</b></i>	<i><b>ACADEMIC</b></i>	<i><b>VOCATIONAL</b></i>
English I – Weighted Honors	English I	
Algebra I or Algebra II – Weighted Honors	Algebra I	
General Science – Weighted Honors	General Science	same as ACADEMIC
World Cultures – Weighted Honors	World Cultures	
Small Learning Community Rotation	Small Learning Community Rotation	
World Language I	FCS, World Language, ROTC	

### GRADE 10

<i><b>RIGOROUS</b></i>	<i><b>ACADEMIC</b></i>	<i><b>VOCATIONAL</b></i>
English II – Weighted Honors	English II	
Algebra II or Geometry – Weighted Honors	Algebra II	
Biology I Weighted Honors	Biology I	same as ACADEMIC
U.S. History I – Weighted Honors	U.S. History I	
Small Learning Community Elective	Small Learning Community Elective	
World Language II	Art, FCS, World Language, ROTC	

### GRADE 11

<i><b>RIGOROUS</b></i>	<i><b>ACADEMIC</b></i>	<i><b>VOCATIONAL</b></i>
English III – Weighted Honors or AP	English III	English III
Geometry-WH, Pre-Calculus, Calculus	Geometry	Geometry
Chemistry – Weighted Honors	Chemistry	Chemistry
U.S. History II – Weighted Honors	U.S. History II	H/PE
Small Learning Community Elective	Small Learning Community Elective	Center for Technical Studies
Small Learning Community Elective	Small Learning Community Elective	
H/PE Phys Ed for Life	H/PE Phys Ed for Life	
World Language III	Elective	

### GRADE 12

<i><b>RIGOROUS</b></i>	<i><b>ACADEMIC</b></i>	<i><b>VOCATIONAL</b></i>
English IV – Weighted Honors or AP	English IV	English IV
Calculus – AP or Math Elective	Pre-Calculus, Algebra III, or Math Elective	Pre-Calculus, Algebra III, or Math Elective
Physics – Weighted Honors	Physics or Science Elective	Physics or Science Elective
American Systems – Weighted Honors or AP U.S. Government	American Systems	American Systems
Small Learning Community Elective	Small Learning Community Elective	Center for Technical Studies
Small Learning Community Elective	Small Learning Community Elective	
H/PE Wellness	H/PE Wellness	
AP World Language IV	Elective	

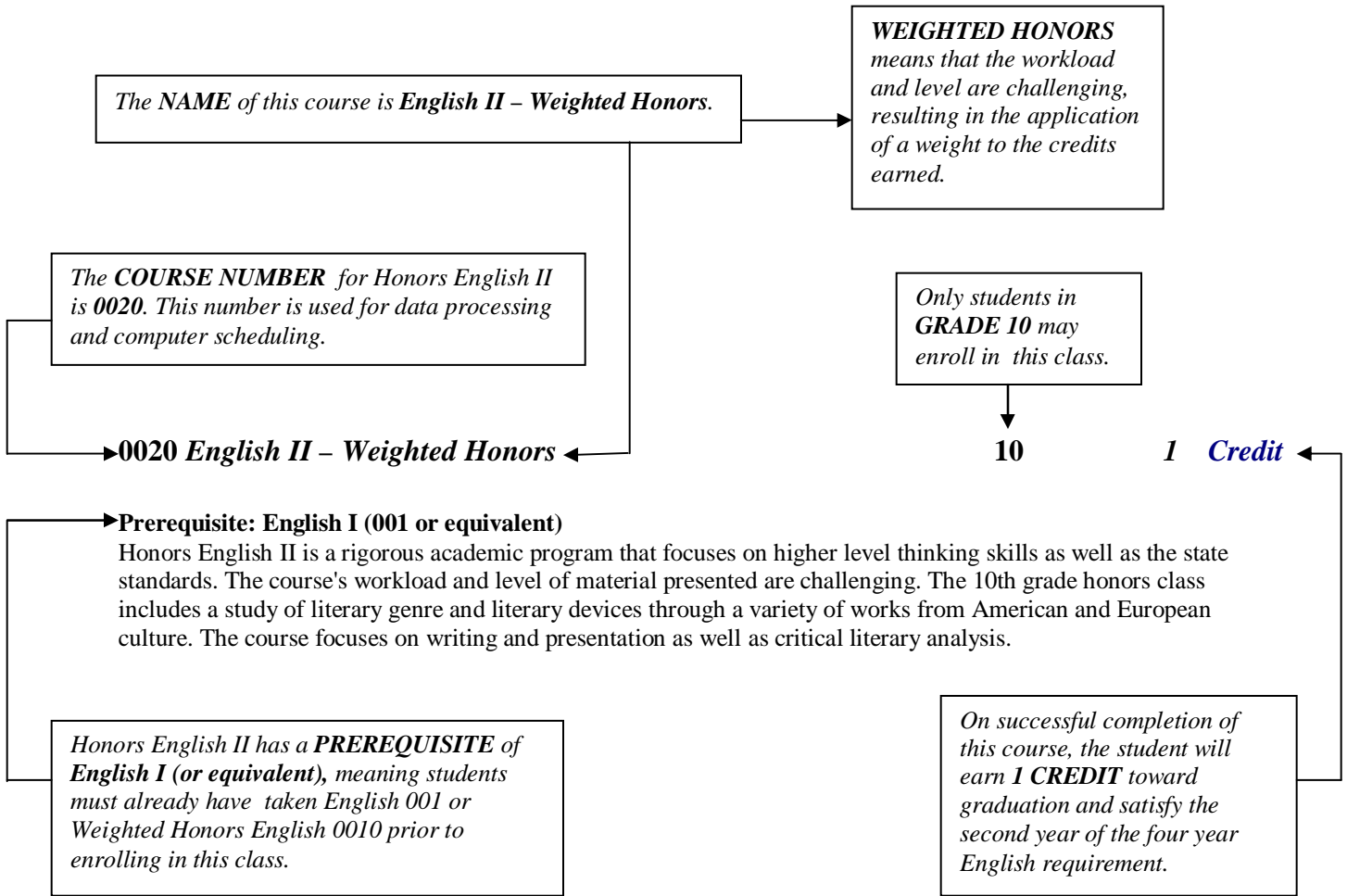


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## **COURSE DESCRIPTIONS**

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**INTERPRETING COURSE DESCRIPTIONS**





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**SMALL LEARNING COMMUNITY  
THEME COURSES**

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## **SMALL LEARNING COMMUNITIES**

At Norristown Area High School, students choose to be a part of a Small Learning Community (SLC): Business and Finance, Health Sciences, Law and Justice, Technology and Engineering, Performing Arts, or Visual Arts. An International community affiliated with the Business and Finance Small Learning Community provides support for English language learners. There are also special groupings available for students with IEPs who need extensive adaptation of the general curriculum, as well as other special programs such as Central Montco Technical High School.

Students are encouraged to choose their community based on the theme that they are most interested in exploring. These themes are developed through Thematic Electives that help increase students' engagement in coursework by appealing to their expressed interests. You will find each SLC's Thematic Electives described in this section.

Every SLC also offers core courses in English, Social Studies, and Mathematics. These courses are described in the next section entitled Core Curriculum, Planning Lane Courses, and Special Programs.

Students spend one block daily outside their SLC in what we call the Planning Lane. Science may be taken during this block, along with additional electives such as World Language, Family and Consumer Science, Art, Physical Education and Health, and JROTC. You will also find descriptions of these courses in the next section.











- 6450**      *AP Music Theory*      11, 12      *1 Credit*  
 This course is designed to prepare students for college-level music theory classes and for the Advanced Placement Music Theory exam. Students will learn to analyze and create traditional, western music. The ability to read and write musical notation is fundamental to such a course. It is assumed that the student has acquired (or is acquiring) at least basic performance skills in voice or on an instrument. Students interested in this course should be aware that they will be required to sing, known as sight-singing, on a daily basis and that they will be required to take the AP Music Theory exam.
- 638**      *Music and Me*      9, 10, 11, 12      *1 Credit*  
 Students in this course will explore the exciting, complex, and fascinating world of music. They will survey the many genres of contemporary music through aural, written, visual, and performance opportunities. Students will learn how to perform on a variety of instruments, including recorders, guitars, and African drums. Through all musical experiences, students will be taught performance etiquette, stage etiquette, interpersonal skills, intrapersonal skills, communication skills, teamwork, how to learn from criticism, and musicianship.
- 023**      *Public Speaking*      10,11,12      *1 Credit*  
 This course is designed to help students to become more comfortable speaking in front of people. This is a skill that is vital to performing arts, but just as vital to any career. Expect to look at yourself critically and allow others to look at you critically. Formal and informal speaking, persuasion, debate, group discussion and problem solving, and oral interpretation will be studied. Students are expected to present a speech at least once per week.
- 661**      *Acting*      11, 12      *1 Credit*  
 In this all-performance course students will learn the elements and principles of acting. Two performances for members of the Performing Arts community are required as well as a writing component
- 667**      *Acting II*      12      *1 Credit*  
**Prerequisite: Acting (661)**  
 In this all-performance course, students will continue to apply the elements of acting to school-based performances. Two performances for members of the Performing Arts community are required as well as a writing component
- 663**      *Musical Theatre*      11, 12      *1 Credit*  
 The music, the lyrics, the book, the technical requirements: all important parts of a musical play. This course surveys the history and development of the musical theatre. Students should expect to read, hear, and/or watch at least two musicals per month; investigate the lives of the composers; compare, contrast, and analyze musical works. No performing is required in this course.
- 664**      *Stagecraft*      11, 12      *1 Credit*  
 In this hands-on course students will learn the specialized skills necessary to produce a play. Students should expect to design and build sets, costumes, props, lighting, sound, and publicity.
- 668**      *Stagecraft II*      12      *1 Credit*  
**Prerequisite: Stagecraft (664)**  
 In this hands-on course, students will continue to work on the specialized skills necessary to produce a play. Students should expect to design and build sets, costumes, props, lighting, sound, and publicity.
- 665**      *Theatre Practice*      10      *1 Credit*  
 A survey of all aspects of theatre: history, playwriting, performance skills, production techniques, and business knowledge.







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**CORE CURRICULUM and  
PLANNING LANE COURSES**

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**045**                    **Video Production** (Replaced 042 Telecommunications in 2009-2010)                    11, 12                    **1 Credit**

**Prerequisite: Permission from Telecommunications teacher**

This course emphasizes basic handling and operation of television equipment and the various roles of video production, including in-studio and on-location video-taping of school district programs and post production. The course requires students to produce their own programming. Students also record, edit, and complete programs for various county and municipal groups requiring responsible shooting time after school hours. Students will also be familiarized with the power of the media and how production design influences the impact of video. Admission to course is by written permission of the Telecommunications teacher.

## FAMILY CONSUMER SCIENCE

**676**                    **Family Consumer Science-9**                    9                    **1 Credit**

This course is designed to help students plan for the future. Areas of study include food science and preparation, nutrition, consumerism, and the life cycle.

**675**                    **Family Consumer Science-10**                    10                    **1 Credit**

This course is designed to help students plan for the future. Areas of study include food science and preparation, nutrition, consumerism, and the life cycle.

**678**                    **Family Consumer Science-11, 12**                    11, 12                    **1 Credit**

This full year course is designed to help students plan for the future. This course encompasses the study of food science and preparation, nutrition, consumerism, and the life cycle.

## HEALTH and PHYSICAL EDUCATION

**7028**                    **H/PE: Phys Ed for Life**                    12                    **1 Credit**

This course offers students the opportunity to achieve health and fitness goals through participation in self-selected activities.

**7029**                    **H/PE: Wellness**                    **Required** 11                    **1 Credit**

This course reinforces basic knowledge and skills in the areas of personal health and fitness.

**7030**                    **Advanced Physical Education**                    12                    **1 Credit**

**\*Note: this course is an elective and does NOT satisfy the PE requirement**

**Prerequisite: Successful completion of required courses, teacher recommendation**

This course is designed for students who have a strong interest in physical education and would benefit those interested in teaching PE, lifeguarding, athletic training, or physical therapy. Students will participate in classroom-style instruction in addition to activity, and will explore a variety of topics not covered in the traditional PE program including planning activities and learning techniques to teach others (recreation, camps).

**7040**                    **Life Fitness & Recreation**                    12                    **1 Credit**

**\*Note: this course is an elective and does NOT satisfy the PE requirement**

This course includes classroom exploration of relationships between diet, exercise, proper nutrition, and goal setting in regard to performance. Physical education games emphasizing cardiovascular conditioning as well as performance in the fitness center and weight room will be emphasized. Activities will be geared toward weight control, muscle toning, and cardiovascular improvement including fitness walking, jogging, running, biking, lifetime activities, recreational games.





## SCIENCE

<b>300</b>	<b><i>General Science</i></b>	<b><i>Required</i></b>	9	<b><i>1 Credit</i></b>
<p>This introductory physical science course is required of all 9th grade students. Subjects introduced include metric measurement, matter, energy, forces, motion, work, machines, heat, sound, light, and magnetism.</p>				
<b>3000</b>	<b><i>General Science WH</i></b>		9	<b><i>1 Credit</i></b>
<p>This course presents a rigorous and comprehensive examination of the fundamental physical science themes including the metric system, structure of the atom, elements, chemical reactions, simple machines, and mechanics. 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. High expectations are maintained to ensure that students are academically challenged. Students will be responsible for many independent reading and writing assignments outside of class. Students need to be highly motivated in science to take this course.</p>				
<b>301</b>	<b><i>Biology I</i></b>		10	<b><i>1 Credit</i></b>
<p><b>Prerequisite: General Science (300, 3000)</b>            This introductory course in life science begins with a detailed study of the characteristics of living things and the environment in which they live and progresses to a study of the cell, DNA, genetics, and Linnaean Classification. Appropriate laboratory work is included.</p>				
<b>3010</b>	<b><i>Biology WH</i></b>		10	<b><i>1 Credit</i></b>
<p><b>Prerequisite: General Science (300, 3000)</b>            This course presents a rigorous and comprehensive examination of the fundamental biological themes including investigative inquiry, ecology and classification, levels of biological organization, cell biology, biochemistry, energy metabolism and nutrition, homeostasis, cell transport, genetics, and biotechnology. 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. High expectations are maintained to ensure that students are challenged academically. Students need to be highly motivated in science to take this course.</p>				
<b>306</b>	<b><i>Chemistry</i></b>		11	<b><i>1 Credit</i></b>
<p><b>Prerequisites: General Science (300, 3000), Biology I (301, 3010), Algebra II (may be taken concurrently)</b>            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. High expectations are maintained to ensure that students are academically challenged.</p>				
<b>3060</b>	<b><i>Chemistry WH</i></b>		11	<b><i>1 Credit</i></b>
<p><b>Prerequisites: "A" in Biology (301) or "B" in Biology WH (3010), "B" in Algebra I &amp; II</b>            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. High expectations are maintained to ensure that students are academically challenged. Students need to be highly motivated in science.</p>				
<b>308</b>	<b><i>Earth-Space Science</i></b>		12	<b><i>1 Credit</i></b>
<p><b>Prerequisites: General Science (300, 3000) and Biology I (301, 3010)</b>            Earth-Space Science includes the study of the universe, solar system, sun and moon, structure of the earth and its movements, weather and erosion, oceanography and motion of the seas, geology and fossils, meteorology, ecology and conservation.</p>				
<b>311</b>	<b><i>Physics</i></b>		11, 12	<b><i>1 Credit</i></b>
<p><b>Prerequisites: General Science (300, 3000), Biology I (301, 3010), Geometry, Algebra II</b>            Topics studied include Newtonian mechanics, light, sound, electricity, magnetism, and modern physics. The concepts and laws of physics explored during the course will be defined mathematically. A graphing calculator is required (Texas Instruments TI-83+ recommended).</p>				











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## **SPECIAL PROGRAMS**

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## VIRTUAL HIGH SCHOOL

**938/939**      *VHS Virtual High School*      11, 12      *1 Credit*

**Approval by 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](http://www.govhs.org).

## SPECIAL EDUCATION

**Note: To schedule these courses, arrangements must be made through the Guidance Counselor, IEP Case Manager, and Special Education Transition Specialist.**

**9309**      *Adapted Sociology*      grade level varies      *1 Credit*

This course is for special education students and is an adaptation of the general education Sociology course.

**9330-9333**      *Adapted Psychology*      grade level varies      *1 Credit*

This adapted course deals with the interactions between people and the phenomena they create: social structure, institutions, stratification, and collective behavior.

**9441-9444**      *Career Preparation*      9, 10, 11, 12      *1 Credit*

This program seeks to enhance students' self-image, self-knowledge, and interpersonal skills leading to independent living. Seniors are encouraged to participate in work experience.

**9501-9504**      *Adapted Science*      9, 10, 11, 12      *1 Credit*

This adapted science component has three distinct targets which are approached simultaneously: improving reading skills, attaining content knowledge, and improving thinking and study skills. The curriculum seeks to impart factual knowledge and to develop skills and abilities that will enable the student to approach and solve the problems encountered in daily living.

**9505**      *Adapted Microsoft Office*      9, 10, 11, 12      *1 Credit*

This course is for special education students and is an adaptation of the Microsoft Office course.

**9523**      *Adapted Current Issues Science*      11      *1 Credit*

Students will explore and investigate current science issues.

**9561-9564**      *Adapted Communications*      9, 10, 11, 12      *1 Credit*

The goal of this adapted Reading/Communications content are is to introduce and/or improve students' listening, speaking, reading, writing, and spelling skills within each individual's capability. The long and short range goals are basically the same for all students but with varying degrees of difficulty in a variety of instructional materials.

**9621**      *Adapted Algebra I*      9      *1 Credit*

The mathematics program is designed to develop practical skills that parallel the regular education curriculum and can be applied in daily living situations. The strengths and weaknesses of the students are considered in the program. Students in the same class will generally be working on similar assignments; however, individual performance levels may vary.

<b>9622</b>	<b><i>Adapted Algebra II</i></b>	11,12	<b><i>1 Credit</i></b>
The mathematics program is designed to develop practical skills that parallel the regular education curriculum and can be applied in daily living situations. The strengths and weaknesses of the students are considered in the program. Students in the same class will generally be working on similar assignments; however, individual performance levels may vary.			
<b>9623</b>	<b><i>Adapted Geometry</i></b>	10	<b><i>1 Credit</i></b>
The mathematics program is designed to develop practical skills that parallel the regular education curriculum and can be applied in daily living situations. The strengths and weaknesses of the students are considered in the program. Students in the same class will generally be working on similar assignments; however, individual performance levels may vary.			
<b>9624/9626</b>	<b><i>Adapted Survey of Mathematics</i></b>	11, 12	<b><i>1 Credit</i></b>
This course is an adaptation of the general education Survey of Mathematics.			
<b>9681-9684</b>	<b><i>Adapted Social Studies</i></b>	9, 10, 11, 12	<b><i>1 Credit</i></b>
This adapted social studies component aims to provide a broad range of experience in the social studies area. It enables students to determine how they fit into our social, political, and economic world and continues to develop basic academic skills for success in the classroom environment.			
<b>9743</b>	<b><i>Life and Health</i></b>	9, 10, 11, 12	<b><i>1 Credit</i></b>
The goal of the Life and Health component is to provide factual information on various health-related topics in an effort to have students apply the information to their own lives. The level of self-awareness will be raised for all students, but individual performance levels may vary.			
<b>9841-9879</b>	<b><i>Applied Academic Courses</i></b>	9, 10, 11, 12	<b><i>variable Credit</i></b>
<b>9841, 9843, 9844, 9851, 9853, 9854, 9861, 9862, 9863, 9864, 9865, 9868, 9869, 9871, 9873, 9875, 9876, 9879</b>			
The goal of the applied academic courses is to provide small group emotional or learning support for each student. This program is designed to meet the goals and objectives of students with IEP's in a supportive classroom. These courses may include all components of Life Skills and Autistic Support Programs.			
<b>988</b>	<b><i>Adapted Current Issues Social Studies</i></b>	11	<b><i>1 Credit</i></b>
Students will explore and investigate current National and International social studies issues.			
<b>990</b>	<b><i>Cooperative Work Study Program (Co-op)</i></b>	11, 12	<b><i>variable Credit</i></b>
This course is designed for eligible students who have an IEP and require an alternative to the traditional academic course of study. Students obtain paid employment within the community and are monitored on the job by the Transition Specialist. U.S. Department of Labor guidelines for employment of youth are followed. Generally, students attend school for a half day and work half a day. The goal is to learn job skills and graduate competitively employed.			
<b>990</b>	<b><i>Community Based Vocational Training (CBVT)</i></b>	11, 12	<b><i>variable Credit</i></b>
Another alternative to the classroom setting, this course permits eligible students with an IEP the opportunity to receive nonpaid vocational training at a district approved community worksite. A few examples of approved community businesses/agencies are Norristown Public Library, Impact Thrift Store, Senior Adult Activity Center of Montgomery County, Elmwood Park Zoo, and the Montgomery County Norristown Farm Park. Students receive vocational training at the community site for up to a half a day. Grants awarded to the school district may involve CBVT. One example is the FutureWorks grant. Work exploration, in which students learn work skills a various sites within the district, is part of the Community-Based Vocational Training course.			
<b>991</b>	<b><i>PSSA Prep Reading</i></b>	11	<b><i>1 Credit</i></b>
This course is for special education students and is an adaptation of the general education PSSA Prep Reading course.			
<b>992</b>	<b><i>PSSA Prep Mathematics</i></b>	11	<b><i>1 Credit</i></b>
This course is for special education students and is an adaptation of the general education PSSA Prep Mathematics course.			



- 1225/1235/1245**      *Intermediate ESL Social Studies*      9, 10, 11, 12      **1 Credit**  
 This course is designed to provide a social studies curriculum with support for students new to the United States from non-English speaking backgrounds, and at the intermediate level for students with limited English proficiency. Curriculum may include U.S. History I, U.S. History II or World Cultures for Advanced ESL students.
- 2315**      *Beginning ESL Math*      9, 10, 11, 12      **1 Credit**  
**Prerequisite: Diagnostic testing**  
 This course is designed to provide a math curriculum with support for students new to the United States from non-English speaking backgrounds, and at the beginning level for students with limited English proficiency.
- 2325/2335**      *Intermediate ESL Math*      9, 10, 11, 12      **1 Credit**  
**Prerequisite: Diagnostic testing**  
 This course is designed to provide a math curriculum with support for students new to the United States from non-English speaking backgrounds, and at the intermediate level for students with limited English proficiency.
- 3515**      *Beginning ESL Science/ ESL General Science*      9, 10, 11, 12      **1 Credit**  
 This course is designed to provide a science curriculum with support for students new to the United States from non-English speaking backgrounds, and at the beginning level for students with limited English proficiency.
- 3525/3535/3545**      *Intermediate ESL Science*      9, 10, 11, 12      **1 Credit**  
 This course is designed to provide a science curriculum with support for students new to the United States from non-English speaking backgrounds, and at the intermediate level for students with limited English proficiency. Curriculum may include Biology I or Biology II.

## ROOSEVELT ACADEMY

Students at the Academic Academy at Roosevelt will engage in an intensive scholastic program designed around a core academic curriculum. Programs in this small learning community are tailored to address the academic and social needs of each student using standards-based performance data. By working hand-in-hand with families, The Academy staff will provide opportunities for the students to achieve academic success. Teachers use a differentiated approach to teaching, emphasizing multiple learning styles, where students are free to discover the lifelong process of learning and achievement. The Academic Academy at Roosevelt affirms the premise that when given the opportunity all students can learn and succeed.

## EXPECTANT PARENTS PROGRAM

This is a self-contained, alternative educational curriculum. It is designed to meet the special needs of pregnant students. The program includes students from Norristown, Colonial, Methacton, and Upper Merion School Districts and is currently housed in the Roosevelt Alternative School building.

Participation is voluntary. Students are accepted based on prenatal criteria, academic needs, home and school referrals, and an interview with the Program Director. This program allows students the opportunity to continue with their “home school” studies, as they actively involve themselves in decision-making responsibilities and goal setting strategies. Instruction is individualized with a strong emphasis on self-esteem. The primary objective is to prepare students for a successful transition from pregnancy to parenting: academically, emotionally, and socially. Enrollment is limited. Additional information is available on request.

## CENTRAL MONTCO TECHNICAL HIGH SCHOOL – NAHS CRITERIA FOR ADMISSION

The following pages include information about the programs offered at CMTHS. It is a privilege to attend CMTHS. As such, you must meet the criteria in the table below in order to apply and to attend. For the 2010-2011 school year, students in Grades 11 and 12 are eligible to attend CMTHS, provided they meet the criteria below.

CATEGORY	SPECIFIC CRITERIA
Attendance	<ul style="list-style-type: none"><li>• No more than 3 unexcused absences during preceding school year</li><li>• No more than 3 tardies to school per marking period during preceding school year</li></ul>
Behavior	<ul style="list-style-type: none"><li>• No more than 3 Category 100 referrals</li><li>• No more than 2 Category 200 referrals</li><li>• No more than 1 Category 300 referral</li></ul>
Academic Performance	<ul style="list-style-type: none"><li>• Passed all classes</li><li>• Completed final exam</li></ul>
On Track for Graduation	<ul style="list-style-type: none"><li>• Has the required number of credits to move into next grade level</li></ul>

## APPLYING FOR ADMISSION

Please contact your counselor for information regarding these programs.

# CENTRAL MONTCO TECHNICAL HIGH SCHOOL (CMTHS)

## THE LEARNING ENVIRONMENT AND THE FACULTY

From the first day's orientation to graduation, students learn a broad-based technical curriculum in a relaxed and supportive environment. Having just completed a 20 million dollar renovation, Central Montco Technical High School is a first-rate facility with state-of-the-art equipment and technology.

At CMTHS, a caring and highly qualified professional staff share their skills while challenging and encouraging their students. Many of the instructors have established high profiles in their fields of expertise prior to becoming teachers. Students not only get to know their teachers, but the teachers get to know them and respond to their individual needs as they extend their support and enthusiasm while preparing students for the future. The students are able to obtain a variety of state and nationally recognized certifications and licenses.

## PHILOSOPHY

Central Montco Technical High School provides educational programs in cooperation with each member school district which will prepare students to pursue post-secondary career studies and/or obtain employment in a global economy. The educational programs are designed to provide students with the necessary knowledge, skills and attitudes that will enable them to become a contributing member of society in an ever-changing workforce need.

## MISSION STATEMENT

Shaping Today's Students for Tomorrow's Careers

## SPECIAL SERVICES

### SCHOLARSHIPS

In order to address our philosophy of encouraging all students to be prepared for "lifelong learning," the Central Montco Technical High School has allocated in excess of \$800,000 in financial aid to graduating seniors. Through this competitive privately funded program, seniors have been able to attend a wide variety of post-secondary schools. Preparation for a scholarship commences with the first day at CMTHS and culminates with the formal application for a scholarship, made in January of the senior year.

### WORK-BASED STUDIES

How do you get experience in your chosen field while still in school? At Central Montco Technical High School, Work-Based Studies (WBS) connects classroom learning with work-based experience and teams employers, educators, community leaders, students and parents.

The Work-Based Studies Experiences at CMTHS include:

Clinical Experiences: Non-paid, work-based experiences in hospitals, long term care facilities and day care centers.

Internships: Paid and non-paid work-based experiences for a specified length of time.

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 ASSISTANCE CENTER

The purpose of the Student Assistance Center is to enhance student achievement by providing a variety of support services. These services are available to any student who is experiencing some difficulty or impediment to learning.

### SUPPORT SERVICES

CMTHS provides supplementary assistance to our students who are enrolled in an approved technical program. Career evaluation, instructional counseling and placement are provided. These evaluation services are designed to provide the student with the necessary information to make a more informed career choice. An assessment counselor is also present to interpret the career interest and

aptitude information about the student, and help them maximize the educational value of their chosen career or technical program. Career related math and reading instruction are also provided through Perkins funding. The academic instructional staff includes a certified math teacher and reading specialist. The math and reading programs are designed to address the needs of students in their chosen technical area and provide assistance with home school assignments.

### **PROGRAM OPTIONS**

There are 15 programs operating during the AM and PM sessions. They are open to 10th, 11th and 12th grade students. The programs are clustered into 4 major areas; Human Services, Communications/Computers, Transportation and Construction.

## **HUMAN SERVICES**

### **ALLIED HEALTH TECHNOLOGY Honors (Dual Enrollment)**

#### **Course Description**

Allied Health Technology is an Honors College Prep course designed for academic students who wish to pursue a career in the health care professions. This course is currently located at the work-based site of Mercy Suburban Hospital where students are supervised during clinical rotations in medical, surgical, support services, administrative and internships. This program is open to 11th and 12th grade students who meet the required prerequisites. **Students are also offered the opportunity of dual enrollment at Montgomery County Community College.**

#### **Course Content**

Students learn to plan, organize, interact, assume responsibility and develop critical thinking and problem solving skills. The curriculum is designed to facilitate communication, cognitive, social-emotional, and the developmental skills necessary for an entry-level position in the health field and continued education on the post-secondary level.

Topics of study include legal and ethical standards in health care, communications, body systems in wellness and disease, health care delivery systems, safety and emergency systems, infection control, language of medicine, principles of nutrition, current issues in health care, and leadership through HOSA (Health Occupations Students of America), seminar visitations to other hospitals/schools.

#### **Related Occupations**

Physician, Pharmacist, Physician's Assistant, Physical Therapist, Occupational Therapist, Registered Nurse, Respiratory Therapist, Speech Therapist, Dietician, EKG Technician, Emergency Medical Technician, Medical Assistant, Licensed Practical Nurse, Radiology/Nuclear Medicine, Medical Lab Technician, Surgical Technician  
Invasive Cardiovascular Technologist

#### **Clinical Rotations**

Medical, Surgical, Support Services, Administrative, Internship/Preceptor

*Medical:* Cardiac Rehab, Nursing, Emergency Room, Specialty Units, Infection Control, Ob/Gyn, Oncology, Education Department, EKG/EEG, Radiology

*Surgical:* Operating Room, Short Procedure, Nursing, Anesthesia, Endoscopy, Tumor Registry

#### **Employment Outlook**

More people are employed in the health care field, both locally and nationally, than in any other occupation.

#### **State and/or National Industry Recognized Certifications Available**

PA and NOCTI Skills Certificate, CPR, First Aid

## **BIOMEDICAL TECHNOLOGY (Dual Enrollment)**

#### **Course Description**

This program is designed for those students who want to keep up with the pace of new discoveries in Biomedical Technology. Students learn to understand the biochemical machinery of microbes to manufacture new pharmaceuticals, improve forensic techniques and help combat bioterrorist threats. The course is a laboratory-based program and the students are in the laboratory setting every day. This program also emphasizes the importance of research reading, presenting and discussion of current scientific articles in the Biomedical Technology field. **Students are also offered the opportunity of dual enrollment at Montgomery County Community College.**

#### **Course Content**

Each of the topics below has several laboratory investigations that introduce the topic and strengthen our understanding of the topic:

Proper utilization of laboratory equipment, preparation of laboratory solutions, aseptic techniques to laboratory investigations, basic microbiological techniques, cell biology, DNA and DNA-RNA interconnections, protein chemistry, immunology, forensics (criminal investigations), bioterrorism, radiation technology, tissue culture

#### **Related Occupations**

Forensic Scientist, Veterinarian Technician, Laboratory Technician, Research Specialist

#### **Internship Programs**

Local Hospital, Health Department and Microbiological laboratories will be utilized as a part of our internship program. The second year students will spend at least two days per week in a professional laboratory. The type of laboratory will depend on the age and interest of the individual.

#### **Employment Outlook**

We live in very exciting times. It seems that every day newspapers are announcing a new and exciting discovery concerning biomedical technology. Many of these findings elicit a great deal of hope as they open new avenues for solving the ever-growing problems of our modern world. Biotechnology provides us with useful research to cure and prevent diseases, feed the world populations, improve the criminal justice system and even solve environmental problems.

#### **State and/or National Industry Recognized Certifications Available**

PA and NOCTI Skills Certificate

## **COSMETOLOGY**

#### **Course Description**

The basic course requires 1250 hours of study and takes 3 years to complete. Along with the required Pennsylvania State Cosmetology regulations, it is mandatory for each student to complete a job shadowing program consisting of 25 hours per school year. Students will learn the theory and practical skills of Cosmetology and the art of customer service and professionalism.

The Cosmetology Program is a three-year standards-based educational program. The 1250-hours required for this course are earned when a score of 75% or above is achieved for each individual unit which includes both theoretical and hands-on training. Attendance is extremely important. The Pennsylvania State Board of Professional and Occupational Affairs mandates 50 hours in professional practices including sterilization, sanitation, professionalism & law; 200 hours in related sciences such as histology, trichology, chemistry, physiology, and dermatology, and 1000 hours in cognitive & manipulative skills. If a student fails, Pennsylvania State Board of Cosmetology will not accept hours towards their Cosmetology License. It is mandatory to report student hours on a quarterly basis. Students are identified by their Social Security number, not their name. Therefore, a Social Security number is necessary. The ultimate goal upon completion of the program is for all students to pass the state board exam and become a licensed professional.

#### **Course Content**

**There is a 200 hour manicuring component of the program which offers practical clinic demonstrations, application and classroom instruction of the nail and nail related arts, products and treatments in a customer serving client setting.**

The Natural Hair Braiding portion of the program is a 150 hour competency-based educational program. The 150 hours required for this course are earned when a score of 80% or above is achieved for each individual unit which includes both theoretical and hands-on training. The Pennsylvania State Board of Professional and Occupational Affairs mandates 150 hours of instruction in professional practices including scalp care, hygiene, sterilization, sanitation, professionalism & law, which are included in this curriculum to individuals currently holding the Natural Hair Braider license to be eligible for renewal. The ultimate goal upon completion of the program is for all students to pass the state board exam for Natural Hair Braiding.

**The esthetics component of the program requires 300 hours of instruction, which offers a well-rounded schedule of classroom instruction and demonstration rooted in practical application of products and treatment in a real customer serving client clinical setting.**

#### **Related Occupations**

Esthetician, Manicurist, Cosmetologist, Shampoo Technician, Stylist Assistant, Color Specialist, Make up Artist, Retail Specialist, Salon Owner, Salon Manager, Cosmetology Teacher, Platform Artist, Salon Educator

#### **Employment Outlook**

There is always a demand for skilled, licensed cosmetologists, manicurists, and estheticians. Fashion trends are always on the move and the needs of the salons are continuously updated. The Cosmetology course will prepare students to meet the State licensing requirements.

#### **State and/or National Industry Recognized Certifications Available**

PA and NOCTI Skills Certificate, PA State License for Esthetician, Cosmetologist, Manicurist, Teacher

## **CULINARY ARTS/BAKING & RESTAURANT PRACTICES (Dual Enrollment)**

### **Course Description**

The Culinary Arts/Baking 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 brand new 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. This program directly articulates with several two and four-year colleges and many graduates are employed locally, statewide, nationally and internationally. **Students are also offered the opportunity of dual enrollment at Montgomery County Community College.**

### **Course Content**

**Students get hands-on experience in: safety practices, sanitation practices, stocks, soups and sauces, cooking techniques, pastries and baking, breakfast cookery, guest services and dining, production controls, meal planning and presentation, buffet presentation.**

Students participate in a special classroom management system validated by the American Culinary Federation. This system incorporates culinary arts, baking, service management and workplace skills achieved through high academic standards and challenging yet realistic practical experiences.

### **Related Occupations**

Executive Chef, Pastry Chef, Line Cook, Restaurant Manager/Owner, Banquet Chef, Caterer, Bakers, Dieticians, Waiters/Waitresses, Food Equipment Buyers, Television Chef, Food Wholesaler, Food Stylist, Culinary Arts Educator

### **Employment Outlook**

More Americans are eating out today than ever before. One out of every three meals consumed today is eaten away from home. Every part of the food service industry offers opportunity, not only for employment but for advancement. The job market is virtually unlimited. Opportunities exist in restaurants, industrial institutions, planes, trains, office buildings, schools, and hospitals. The successful food service employee is one who enjoys being with the serving people.

### **State and/or National Industry Recognized Certifications Available**

PA and NOCTI Skills Certificate, Servesafe Sanitation, American Culinary Federation (ACF),

## **EARLY CHILDHOOD EDUCATION (Dual Enrollment)**

### **Course Description**

The Early Childhood Education program is designed for 11<sup>th</sup> and 12<sup>th</sup> 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 child care 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, child care centers, Head Start programs, and early intervention programs as well as our own on-site preschool, "Little Hands." **Students are also offered the opportunity of dual enrollment at Montgomery County Community College.**

### **Program Content**

Topics of study include principles of child development, health, safety and nutrition, observation and teaching skills, communication skills, team building skills and child care center management and organization. Along with classroom instruction, students will learn skills by preparing and presenting both individual and team projects appropriate for children ages infant through young school-age. The students will reflect upon these experiences and record them in their journals as a required competency.

### **Related Occupations**

Teacher's Assistant, Child Care Assistant, Nanny, Assistant Group Supervisor, Family Home Child Care Provider, Early Childhood Teacher, Elementary School Teacher, Child Care Center Director, Office of Child Development Inspector

### **Employment Outlook**

Today, more than 66% of all women with children under the age of six years old work outside the home. There is a strong demand for child care services.

### **State and/or National Industry Recognized Certifications Available**

PA and NOCTI Skills Certificate, CPR, First Aid, preparation for Child Development Associate Certificate (CDA)

## **HEALTH OCCUPATIONS (Dual Enrollment)**

### **Course Description**

The Health Occupations 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, including the Certified Nurses Assistant curriculum, as well as preparing the student to enter the health care system as a competent assistant to the health professional. This

program is a state certified course and allows the eligible student to become a Certified Nurse's Aide or Medical Assistant. **Students are also offered the opportunity of dual enrollment at Montgomery County Community College.**

#### Course Content

**This program provides the student with the necessary cognitive skills including communication methods, anatomy and physiology, medical terminology and the skills necessary for assisting in community health care facilities.**

**Topics of study include anatomy and physiology, medical ethics, medical terminology, nursing skills, leadership and employment skills, clinical experience, CPR and first aid.**

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.

#### Related Occupations

Radiological Technologist, Surgical Technician, Physical Therapy Assistant, Medical Records Technician, Occupational Therapy Assistant, Medical Secretary, Home Health Aide, Certified Nurse Aide, Electrocardiogram Technician, Respiratory Technician, Pharmacy Technician, Veterinary Assistant

#### Employment Outlook

Employment in the health care industry is the fastest growing workforce in the state and in the nation. Nationally, the industry will grow by 50% to 9.8 million workers. In Pennsylvania, Health Occupation professions place in 13 of the 15 fastest growing occupations; locally, the health care field is the largest employer in the area.

#### State and/or National Industry Recognized Certifications Available

PA and NOCTI Skills Certificate, PA Registered Nursing Assistant, CPR, First Aid

#### PRE-NURSING (Dual Enrollment)

##### Course Description

**The Pre-Nursing Program is intended for the academic student who is interested in the field of nursing and has a serious commitment to the nursing profession. The environment encompasses the entire campus of Montgomery Hospital. Added enrichment will be provided through the ancillary departments where students will also rotate. This program is open to 11th and 12th grade students who meet the required prerequisites. Students are also offered the opportunity of dual enrollment at Montgomery County Community College.**

##### Course Content

**The curriculum consists of the communication, cognitive, social-emotional and developmental skills necessary to obtain an entry level position in the health care field. Continuing education on the post-secondary level is expected and re-enforced through the learning process.**

**Topics of study include legal and ethical standards in health care, communications, body systems in wellness and disease, health care delivery systems, safety and emergency systems, infection control, language of medicine, principles of nutrition, and current issues in health care.**

##### Related Occupations

Registered Nurse, Respiratory Therapist, EKG Technician, Medical Assistant, Licensed Practical Nurse, Radiology/Nuclear Medicine, Surgical Technician

#### Employment Outlook

More people are employed in the health care field, both locally and nationally, than in any other occupation.

#### State and/or National Industry Recognized Certifications Available

PA and NOCTI Skills Certificate, Health Care Provider CPR and First Aid

#### PUBLIC SAFETY

##### Course Description

**The Public Safety Program is designed to prepare students to enter careers related to Law Enforcement, Emergency Medical Services, Fire Sciences, and Industrial Safety. The program is based at Central Montco Technical High School with many of the learning experiences performed at off-campus locations such as the Montgomery County Fire Academy, local police departments and local businesses. Students are able to obtain state and national certifications such as First Aid, Cardio Pulmonary Resuscitation, Hazardous Materials and Fire Fighting. Mastering of the competencies will be accomplished in supervised simulated situations.**

#### Course Content

**Topics of study include emergency response, safety, criminal justice, criminal investigation, defensive tactics, drug laws, arson investigation, security systems, patrol/traffic/guard duties, essentials of fire fighting, employability skills, computer skills, community relations, emergency communications, hazardous materials awareness, leadership training, rescue techniques, accident investigation, fire science, ethics, equipment maintenance, physical and mental fitness, evidence collection, photography.**

**Internships provide first-hand experiences in an occupation selected by the student while under the direct supervision of a mentor.**

#### Related Occupations

Criminal Justice, 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, Emergency Medical Technician, Paramedic, Emergency Management Worker, Dispatcher, Probation Officer, Fire Control Technician, Fire Fighter, Victim Assistance Counselor, Military Police

#### Post-Secondary Opportunities

Articulation agreements have been developed with colleges and universities and will provide advanced placement opportunities. Program completers are also better prepared to meet candidate requirements for selective training programs such as the military, police academy and fire academy.

#### Employment Outlook

Recently, the need for technical, academic and practical training in the Emergency Medical Services and Law Enforcement fields has become significantly greater. The need and importance of well-trained employees in these fields has been bolstered with the Homeland Security Initiative. Locally, statewide and nationally, communities are looking proactively, to secure and protect their citizens. The occupational choices in these programs continue to provide many employment opportunities for students who take this training seriously.

#### State and/or National Industry Recognized Certifications Available

PA and NOCTI Skills Certificate, First Aid, CPR, Chemical Aerosol Spray, Emergency Response. Student involvement in volunteer service organizations will receive additional training certifications which will be recognized in the curriculum.

## COMMUNICATIONS/COMPUTER

### ENGINEERING TECHNOLOGY/COMPUTER-AIDED DESIGN - CAD (Dual Enrollment)

#### Course Description

**The Engineering Technology program is geared towards students that enjoy design, technical sketching, invention and “hands-on” activities. Any student considering a career in architecture or engineering related fields will gain immediate entry-level employability skills and a solid foundation for continued studies. Students in the program may pursue two general tracks: architectural and/or mechanical. The architectural track covers the fundamentals of residential design. The mechanical track focuses on basic design and manufacturing processes. CAD (Computer-Aided Design) software is used to generate drawings of structures and components with an emphasis on modeling and other hands-on projects.**

The unique aspect of this program is that it allows students to learn the fundamentals of architecture and design by allowing them to pursue applied building projects utilizing many of their own original ideas. Additionally, the integration of math, critical thinking and presentation skills is emphasized as essential to the make-up of the successful architect or engineer.

**Students are also offered the opportunity of dual enrollment at Montgomery County Community College.**

#### Course Content

**The course utilizes “AutoCAD 2009” software, which is used by a majority of manufacturing and construction industries as well as most colleges and universities.**

**Topics of study include: Basic Drawing Techniques, Structural Design and Testing, Mechanical Design, Basic Engineering Principles, Architectural Models, Residential Design Project, Three Dimensional (3-D) CAD (AutoCAD Inventor), Applied Physics, Creation of Computer Generated Drawings, Plotting & Printing, 3-D Rendering.**

Students learn the basics of design through functional and challenging projects. Emulating the real world environment, students have entered their designs in National Rocketry competitions as well as Science and Physics Olympiads. The projects develop the concept of engineering as a team effort.

#### Related Occupations

Design Drafter, Mechanical Designer, Mechanical Engineer, Architect, Civil Engineer, Technical Illustrator, ADDA Certified Drafter, Architectural Drafter, Civil Drafter, Engineering Drawing Checker, CAD Operator, Landscape Architect, Interior Designer

#### Employment Outlook

Careers in design, architecture and engineering are in high demand nationally as well as in the Philadelphia area. Individuals with skills and training in Engineering and Architecture continue to be listed as in demand. These careers represent a stable industry that traditionally offers job security, challenging work, a good working environment, excellent compensation, paid education and outstanding growth potential. The modern technology boom has magnified the need for people who can merge a creative mind with an eye for technical detail. Salary levels and compensation are upwardly mobile, especially for those with the determination to gain higher education and experience.

#### State and/or National Industry Recognized Certifications Available

PA and NOCTI Skills Certificate. Additionally, successful program completers have the opportunity to obtain the industry recognized ADDA (American Design Drafting Association) Certification.

### NETWORKING TECHNOLOGY (Dual Enrollment)

#### Course Description

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 and with the Internet growing continually, there are many opportunities available to Networking Technology students. Students can earn CompTIA Network+ certification as well as a CCNA (Certified Cisco Network Associate) certificate. With an education in infrastructure-level networking, students are highly sought after by employers in all areas of business and education. **Students are also offered the opportunity of dual enrollment at Montgomery County Community College.**

#### Course Content

**Each student starts the program with an introduction to networking that is the CompTIA Network+ program. The technology community identifies CompTIA Network+ as the perfect entry into a networking career. Topics of study include networking basics with the CompTIA Network+ Program, routers and routing basics, switching basics and inter-network routing and WAN technologies. Upon completing the Network+ curriculum, students move into the Cisco Networking Academy course work.**

CCNA<sup>®</sup> is a comprehensive curriculum that includes four separate modules. These modules cover the learning objectives of the CCNA certification exam, which is the first step in a Cisco career certification path. The curriculum emphasizes the use of decision-making and problem-solving techniques to resolve networking issues. Students learn how to install and configure Cisco switches and routers in local and wide-area networks using various protocols, provide Level 1 troubleshooting service, and improve network performance and security. Additionally, training is provided in the proper care, maintenance, and use of networking software tools and equipment.

#### Related Occupations

Network Engineer, Network Specialist, PC Specialist, CCNA (Certified Cisco Network Associate), Computer/Network Specialist, LAN Administrator, Wide Area Network Implementer/Security Specialist, A+ Certified Network Administrator, Network+ Certified Administrator, Copper and Fiber Cabling Specialist, Wireless LAN Specialist, Cabling Specialist, Wireless LAN Specialist, MCSA Certified, Panduit Approved Installer certified

#### Employment Outlook

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 in all areas of business and education. Major corporations involved in the Networking Technology industry would not be leaders in their field if not for the fact that the networks which they develop and maintain are so reliable. As a result, more and more companies are paying for additional education, higher starting salaries, industry certifications, and stock options for competent Network Specialists.

#### State and/or National Industry Recognized Certifications Available

PA and NOCTI Skills Certificate, Cisco Networking Academy

### VISUAL COMMUNICATIONS CLUSTER

**The Visual Communication Cluster is comprised of two programs: Commercial Art and Digital Media. All students entering either program participate in the same course of study during their first year. This foundational year program addresses such areas as use of traditional art tools, color theory, design theory, and typography. In addition, first year students are introduced to computer graphic applications and develop a strong working knowledge of Adobe Illustrator and Adobe Photoshop. At the end of the first year portfolios are reviewed and students make a decision to enter into either the Commercial Art program or the Digital Media program.**

## COMMERCIAL ART

### Course Description

**Students in the Commercial Art program pursue studies in traditional media such as watercolor, pencil drawing, pen and ink, block printing and air brush with an emphasis on illustration. Work is also done in advanced color theory and design theory. Computer based studies continue with an emphasis on graphic design, or design to a printed end. Commercial Art students are also introduced to photography using the most current technology. Most of the students completing the Commercial Art course continue their education at the college level or at other post-secondary art schools.**

### Course Content

**Some of the media studied include pencil drawing, pen and ink rendering, watercolor painting, airbrush, and digital photography. As reflects 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 Photoshop, PageMaker and Illustrator.**

### Related Occupations

Graphic Designer, Illustrator, Computer Graphic Artist, Sign Maker, Paste-Up Artist, Interior Decorator, Fashion Designer, Display Designer, Theatrical Set Designer, Package Designer

### Employment Outlook

Employment opportunities for commercial art graduates vary widely, reflecting the diversity of the field. The graphic communications industry remains strong and has expanded greatly in the area of multi-media presentations. Students with layout, typographic and mechanical preparation skills coupled with computer design talents will find numerous positions available in the area of graphic design. Positions are also available in such areas as sign making, visual merchandising, package design and display and exhibit design.

### State and/or National Industry Recognized Certifications Available

PA and NOCTI Skills Certificate

## DIGITAL MEDIA

### Course Description

**Students choosing the Digital Media program pursue a primarily computer-based course of instruction. Students learn to design web pages utilizing such programs as Adobe Dreamweaver and Adobe Flash. They also study such multimedia areas as video editing, sound editing and animation using a wide variety of software. Students entering the program with previous experience will be given a comprehensive test to determine their placement in the programs.**

### Program Content

**Topics of study include computer hardware and software, digital imaging, print preparation, page layout and design, desktop publishing, video editing, digital photography, and applicable principles and graphic and web page design.**

A person in this trade will be able to develop their skills in programs such as Illustrator, Photoshop, QuarkXPress, InDesign, Flash, Director and other various applications to excel in the world of graphic design. Along with the creative graphics side of the industry there is a strong need for production artist, photo retouching and prepress. Although these skills work hand in hand together there are still so many options to specialize in one area of the graphic arts field.

### Related Occupations

Art Director, Production Artist, Pre-Press Designer, Web Designer, Multi-media Design, Flash Designer, Print Advertising, Press Operation, Digital Retouching, Print Preparation, Mechanical Artist, Photo Manipulation, Catalog/Magazine/Newspaper Layout, Desktop Publishing, Video Production

### Employment Outlook

The world of visual communications is growing faster with each new day, the programs and the computers have advanced to speeds in which the old saying of "It can't be done"... can. The Desktop Publishing and Digital Imaging field gives us the ability to combine all forms of mixed media to create endless possibilities through the print, web and multi-media.

### State and/or National Industry Recognized Certifications Available

PA and NOCTI Skills Certificate, ADOBE Certificate

## CONSTRUCTION

### CONSTRUCTION TECHNOLOGY

#### Course Description

**The Construction Technology Program is an excellent option for students interested in a career related to residential and commercial construction. This program includes studies in Carpentry, Masonry, Electricity and Plumbing. The first and second level students rotate through each of the construction trade laboratories, providing exposure to the skills required for**

success in each occupation. In the third year, the student has the option of remaining in the rotation or selecting a major for the year. This major can be incorporated with work-based learning in a paid or unpaid position

#### Course Content

The curriculum used is developed by the National Center for Construction Education and Research. Students also utilize the state-of-the-art construction software systems to supplement their classroom and shop learning experience. Incorporated into the programs are trade math, estimation, safety, blueprint reading, drawing and building codes.

**Carpentry and Masonry topics include the use of a variety of hand and power tools and following technical specifications to produce many different types of projects, such as site layout, framing, siding, and finish trim along with installation of brick/block walls, fireplaces, and patios.**

**Plumbing and HVAC topics include oil and gas heating systems, air conditioning equipment along with plumbing, water supply, gas supply and drainage systems, copper, cast iron, PVC, and installation, maintenance and repair of gas line. Students also install and repair various plumbing fixtures.**

**Electrical topics include residential and commercial electrical systems in addition to category 5 and fiber optic cable systems, used in video, voice, and data transmission, will be properly installed and repaired.**

#### Related Occupations

Carpenter, Plumber, Electrician, General Contractor, Project Manager, Sales and Service Technician, Mason, Architect, Estimator, Building Inspector, Job Site Supervisor, Construction Engineer

#### Employment Outlook

This training can prepare students to enter the workforce immediately after high school or provide a pathway to a college, technical school, or university. Students may obtain up to 18 credits toward a college degree or certification program at various institutions such as Thaddeus Stevens College of Technology and Pennsylvania College of Technology. Students are also eligible to obtain a variety of industry recognized certifications and advanced placement into paid trade apprenticeship programs.

Since the program maintains close relationships with local employers and professional organizations, students readily participate in on-the-job internships, cooperative education and can easily obtain summer employment. There are also many scholarships available to Construction Technology Program graduates. The Housing and Commercial Construction industry has been on the increase for the past five years.

#### State and/or National Industry Recognized Certifications Available

PA and NOCTI Skills Certificate, Associate Builders Apprenticeship Program, EPA Section 608 Certificate, Premises Networking Cabling Systems Certification, OSHA 10-hour Certificate

## TRANSPORTATION

### AUTOMOTIVE TECHNOLOGY (Dual Enrollment)

#### Course Description

The Automotive Technology program introduces students to the Automotive Service Industry. The course focuses on developing the hands-on and intellectual skills required of an entry-level technician. This course is NATEF (National Automotive Technicians Education Foundation) certified. Students who meet the academic and employability skills qualifications may apply for the AYES (Automotive Youth Educational Systems) Program. **Students are also offered the opportunity of dual enrollment at Montgomery County Community College.**

#### Program Content

**Topics of study include Tools/Fasteners, Suspension and Steering, Brakes, Electrical and Electronics Systems, Engine Repair, Engine Performance, Vehicle Maintenance and Reconditioning, Heating and Air Conditioning.**

**This program integrates science, math, communication and technical skills with on the job training so that students apply and enhance their classroom experience**

#### Related Occupations

Mechanic, Automotive Technician, Parts Sales, State Emissions Inspector, General Line Technician, Service Writer, Used Car Mechanic, Specialty Technician

#### Employment Outlook

In dealerships across the country, challenging and well paying jobs are going unfilled because there aren't enough qualified service technicians to fill the thousands of positions available today. This condition developed in the 1990's and is expected to continue for some years to come.

Twenty first century cars and trucks are very sophisticated high tech machines, with as many as two dozen different computers on board to monitor and control different systems. This means that today's automotive technician needs to have a much higher level of skill than was needed a generation ago. In fact, he or she needs to have the same kind of critical thinking skills as an electrical engineer. The individual who has such skills and the appropriate training has virtually unlimited career opportunities.

**State and/or National Industry Recognized Certifications Available**

PA and NOCTI Skills Certificate, Automotive Service Excellence (ASE 8 areas), Freon Handler's License

**COLLISION REPAIR TECHNOLOGY**

Course Description

**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. The program is A.S.E. (Automotive Service Excellence) and ICAR gold certified. The student can receive a certification as a certified Estimator by completing the A.D.P. (Automatic Data Processing) program while in the Collision Repair program. Among the areas of study are Collision Repair and Paint Technician. Upon completion, students can pursue a college degree program in Collision Repair Technology at many colleges throughout Pennsylvania.**

Course Content

**The nationally recognized curriculum, I-Car prepares students to remove excessively damaged fenders, panels and grills using wrenches and cutting tools and attaching or manufacturing replacements by bolting, gluing or mig welding them in place. Other skills taught in this course include dent removal, body filling using plastic filler, fiberglass, and grinding, sanding and applying base coat, and clear coat paints using today's newest technology. This well equipped lab contains state of the art equipment such as a prep station and a down draft spray booth.**

Related Occupations

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

**Employment Outlook**

The employment outlook for Collision Repair and Painting is connected to the number of vehicles damaged through accidents, vandalism, weather and age. As the accident rate is expected to increase over the next several years, employment is expected to rise faster than the average for all occupations. Industry needs workers who have knowledge and ability to assist in the development of the fast-changing technology of the latest automobile designs and styles.

**State and/or National Industry Recognized Certifications Available**

PA and NOCTI Skills Certificate, Automotive Service Excellence (ASE 5 areas), I-CAR (11 areas), Automatic Data Processing (ADP) Certified Estimator

## **TECH PREP PROGRAMS**

All programs at CMTHS are Tech Prep approved by the Pennsylvania Department of Education. Students who attend Central Montco Technical High School have the opportunity to get a head start on a technical career. The head start occurs through a process known as articulation via a program referred to as Tech Prep.

### **What is Tech Prep?**

Tech Prep is a career preparation through articulation, advanced placement and dual enrollment. It is designed to prepare students to enter specific programs of study. The College Prep programs of study focus on academic and technical preparation with a course of study that combines two or four years of secondary education with two or more years of post-secondary education.

Through articulation, post secondary institutions grant recognition for the achievement of college-level learning acquired through course work at CMTHS.

### **Are you a Tech Prep Student?**

You are a Tech Prep student if you have taken a rigorous academic course of study, established a career objective and plan on continuing your education after high school. If you're unsure that you are a Tech Prep student, ask your guidance counselor. Be sure to ask about Tech Prep programs and special college articulation agreements, which may gain you college credit while in high school.

### **What are the advantages of advanced placement?**

Articulation agreements recognize the students' mastery of college level learning during their secondary technical program of study. Through documentation or examination, students may obtain college credits. By obtaining credits, students will avoid duplicating course work and are eligible to select courses in advanced skilled areas. By taking advanced skill courses, students enhance their opportunities for high tech career employment.

### **Why do students need to take more rigorous academic courses?**

Students planning on entering a post-secondary program can save time and money by successfully completing more rigorous academic courses. Most importantly, the requirement for 85% of all jobs in the United States economy require individuals who can perform at the highest level possible. Employers are seeking workers who are proficient at reading, writing, arithmetic, listening, speaking, problem solving and decision-making.

## **ARTICULATION AGREEMENTS**

An articulation agreement is a formal document that matches coursework between secondary and post-secondary schools. These are designed to help students make a smooth transition from the high school setting to a post-secondary experience. Articulation agreements describe the scope and sequence of courses and in many cases, offer advanced placement options. As of September 2003 every program at Central Montco Technical High School has at least one articulation agreement with a post-secondary institution.

### **What is Dual Enrollment?**

Dual Enrollment denotes that a student at CMTHS is receiving credit both for the CMTHS course and a Montgomery County Community College course. This is possible when the CMTHS instructor has been approved as an adjunct instructor at MCCC or when a student enrolls in one of the two Psychology courses offered once a week by MCCC instructors. Both options take place during normal class time.

**CENTRAL MONTCO TECHNICAL HIGH SCHOOL  
ARTICULATION AGREEMENT**

<b>CMTHS Program</b>	<b>Post Secondary Entity</b>	<b>Type of Articulation</b>
Allied Health	Gwynedd-Mercy College PA College of Technology Philadelphia University Lehigh Valley College MCCC (Surgical Technology) MCCC (Radiography) Immaculata University	Advanced Placement & 9 Credits Advanced Placement Advanced Placement 3 Credits Preferred Admission Preferred Admission Preferred Admission
Automotive Technology	Automotive Training Center PA College of Technology Lincoln Tech MCCC Pennco Tech Universal Technical Institute	Advanced Placement Advanced Placement Advanced Placement 6 Dual Enrollment Credits Advanced Placement 7 Credits
Biomedical Technology	MCCC	6 Dual Enrollment Credits + 9 more available
Collision Repair Technology	PA College of Technology Pennco Tech Automotive Training Center Universal Technical Institute	Advanced Placement Advanced Placement Advanced Placement 7 Credits
Construction	PA College of Technology CHI (Electricity) ABC Apprenticeship Trust	Advanced Placement Advanced Placement & Credits Advanced Placement – 2 <sup>nd</sup> Level Student
Cosmetology	PA College of Technology (Business Management/Cosmetology)	Advanced Placement
Culinary Arts	PA College of Technology MCCC Johnson & Wales University The Restaurant School at Walnut Hill College	Advanced Placement 9 Dual Enrollment Credits 15 Credits 5 Credits
Early Childhood Education	MCCC	Advanced Placement + 6 Dual Enrollment Credits
Engineering Technology	PA College of Technology Penn. Institute of Technology Lincoln Technical Institute MCCC	Advanced Placement 12 Credits Advanced Placement 9 Dual Enrollment Credits
Health Occupations	PA College of Technology CHI Harcum College Lehigh Valley College MCCC (Surgical Technology) MCCC (Radiography) MCCC (Dental Hygiene)	Advanced Placement Advanced Placement & Credits 3 Credits 3 Credits Preferred Admission Preferred Admission Preferred Admission
Networking Technology	PA College of Technology MCCC Central Pennsylvania College CHI	Advanced Placement Certificate/Credits + 9 Dual Enrollment Credits 6 Credits Advanced Placement
Pre-Nursing	PA College of Technology CHI Harcum College Lehigh Valley College MCCC (Surgical Technology) MCCC (Radiography)	Advanced Placement Advanced Placement & Credits 3 Credits 3 Credits Preferred Admission Preferred Admission
Public Safety	PA College of Technology MCCC (Criminal Justice/Fire Science) CHI Harcum College	Advanced Placement Advanced Placement & 3 credits Advanced Placement 3 Credits
Visual Communications	PA College of Technology CHI Art Institute of Philadelphia	Advanced Placement Advanced Placement 12 Credits

## **SUMMARY OF SHOP REQUIREMENTS**

Students interested in Central Montco Technical High School should know that each shop may have its own set of requirements. These are outlined below. It should be noted that any costs listed are approximate and subject to change.

### **ALLIED HEALTH TECHNOLOGY**

- Light blue scrubs and light blue lab coat - \$60
- 1 or 2 GB USB drive - \$10
- White leather shoes - \$20
- A watch with a second hand - \$10
- Stethoscope - \$20
- Three ring binder - \$5
- Criminal history check completed on-line - \$10
- Physical examination, a 2-step Mantoux test and the Hepatitis B series performed by his/her family doctor or the school physician (cost depends on individual insurance coverage). This is a requirement for participation in clinical experience.
- All body art must be covered and no facial piercing or artificial nails are permitted via guidelines of Mercy Suburban Hospital.

### **AUTOMOTIVE TECHNOLOGY**

- Dark blue T-shirt supplied by CMTHS (with program name and CMTHS logo) - \$10
- Dark blue Dickies® pants - \$25
- Leather work boots - \$40
- Safety glasses - \$5
- Three ring binder - \$5
- It is required that students purchase a basic tool set to aid in their future employment (approximate cost \$125.00)

### **BIOMEDICAL TECHNOLOGY**

- White lab coat - \$15
- Safety glasses - \$5
- Leather shoes - \$20
- Three ring binder - \$5

### **COLLISION REPAIR TECHNOLOGY**

- Black T-shirt supplied by CMTHS - \$7
- Dickies® pants - \$25
- Work boots with leather tops - \$40
- Safety glasses - \$5
- Three ring binder - \$5
- It is required that students purchase a paint respirator and complete an OSHA questionnaire signed by a doctor - \$60
- It is suggested that over a three-year period that students purchase a basic tool set to aid in their future employment (approximate cost \$125).

### **CONSTRUCTION TECHNOLOGY**

- Green T-shirt supplied by CMTHS - \$7
- Leather work boots - \$40
- Safety glasses - \$5
- 25' tape measure, 6' folding ruler, leather work belt, nail apron, hammer holster, combination or padlock - \$50 (or purchase set of tools listed below)
- Three ring binder - \$5
- Two pencils, 1 pen
- 1 or 2 GB USB drive - \$10
- It is suggested that over the course of three years, students should purchase a basic set of tools that will enable them to become employed (approximate cost \$200).

## **COSMETOLOGY**

- Complete Cosmetology Kit (Required by Pennsylvania State Board of Cosmetology)
- Two New Mannequins each year in addition to full kit (second & third year students only)
- Black Smock – included in kit
- Black Professional Pants (must be all black) - \$20
- Black Professional Shoes (must be all black) - \$20-\$50
- Three ring binder (3 inch) - \$5
- Pens/Pencils/Highlighters/Index Cards
- Students must apply for their State License in order to continue in the Cosmetology program for Manicuring at a cost of \$149 per exam per announced deadline.
- In order to successfully complete the Cosmetology course and receive 1250 clock hours, third year students must apply to take the State Board Exam by the end of the third marking period at a cost of \$149.

## **CULINARY ARTS/BAKING AND RESTAURANT PRACTICES**

- Double breasted long sleeved white chef's coat\*
- Properly hemmed black and white checked pants\*
- **A floppy white cloth cooks hat\***
- White apron\*
- Work boots (No sneakers or athletic shoes) - \$40
- Black polo shirt/black apron\* (restaurant uniform)
- Pens, pencils and a 3 or 4 inch three ring binder for the portfolio - \$5

\*As of 2005 we have arranged with New Chef Fashions Uniform Inc. of California to ship directly to you the required uniform complete with the CMTHS logo. Please follow the directions on the order form that will be included in the summer mailing. Allow three weeks for delivery as each uniform is embroidered with the students name on it (approximate cost \$145).

## **EARLY CHILDHOOD EDUCATION**

Due to PA Department of Welfare, Office of Child Development and Early Learning laws, all students must provide the following documents.

- PA Criminal History Check (\$10)
- PA Child Abuse Clearance (\$10)
- Staff Health Appraisal with Mantoux T.B. Test (cost depends on individual insurance coverage)
- Confidentiality Contract

All students must wear sneakers or closed toe shoes. Modest jeans and shirts are appropriate.

- Light blue lab jacket - \$20
- 1 GB USB drive - \$10
- Three ring binder (3 inch) - \$15

## **ENGINEERING TECHNOLOGY**

- 1 GB USB drive - \$15
- Scientific calculator - \$15
- Metric/inch ruler - \$1
- Three ring binder - \$3

## **HEALTH OCCUPATIONS**

- Navy blue scrubs - \$30
- White leather nursing shoes - \$20
- Stethoscope - \$20
- A watch with a second hand - \$10
- 1 or 2 GB USB drive - \$10
- Three ring binder (3 or 5 inch) - \$15
- Criminal history check completed on-line - \$10
- Physical examination, a 2-step Mantoux test and the Hepatitis B series performed by his/her family doctor or the school physician (cost depends on individual insurance coverage). This is a requirement for participation in clinical experience. All body art must be covered and no facial piercing or artificial nails are permitted via guidelines of the healthcare facilities.

## **NETWORKING TECHNOLOGY**

- Five class shirts supplied by CMTHS (color is based on program level) – \$60

## **PRE-NURSING**

- Navy blue scrubs and navy blue scrub jacket - \$60
- White leather nursing shoes - \$20
- Stethoscope - \$20
- A watch with a second hand - \$10
- Three ring binder (3 or 5 inch) - \$15
- 1 or 2 GB USB drive - \$10
- Criminal history check completed on-line - \$10
- Physical examination, a 2-step Mantoux test and the Hepatitis B series performed by his/her family doctor or the school physician (cost depends on individual insurance coverage). This is a requirement for participation in clinical experience. All body art must be covered and no facial piercing or artificial nails are permitted via guidelines of the healthcare facilities.

## **PUBLIC SAFETY**

- Standard police style blue shirt with epaulets worn with navy blue or black dress trousers - \$33
- Physical training T-shirt supplied by CMTHS - \$10
- Belt, black shoes or boots - \$60
- Blood pressure cuff and stethoscope for emergency medical training - \$30
- Proper physical fitness attire is also required at the discretion of the instruction - \$20
- Large three ring binder - \$5
- 1 GB USB drive - \$10

## **VISUAL COMMUNICATIONS (DIGITAL MEDIA/COMMERCIAL ART)**

- Foundation year tool kit consisting of brushes, pencils, ink and water color set, a toolbox to hold supplies, a portfolio and a three ring binder - \$75
- USB drive for computer files - \$20
- Students will be required to purchase their classroom uniform from the school at a cost of \$7

## **STUDENT ORGANIZATIONS**

SkillsUSA and Health Occupations Students of America (HOSA) have chapters at Central Montco Technical High School. 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 government.

## **COUNCIL OF PRESIDENTS**

Council of Presidents is established for each session with representation from all program areas. Meetings are held on a monthly basis with the primary goal of functioning as a student government.

## **NATIONAL TECHNICAL HONOR SOCIETY**

The National Technical Honor Society is the acknowledged leader in the recognition of outstanding student 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 top students find success in today's highly competitive workplace.

### **Qualifying Criteria**

1. Have a combined home school and Central Montco Technical High School Grade Point Average (GPA) of 3.3.
2. Have at least a GPA of 3.75 in their vocational major at Central Montco Technical High School.
3. Be nominated to the society by their vocational instructor.
4. Obtain approval from their home school principal and the Director of Central Montco Technical High School.
5. Be involved in community and/or school service activities.
6. Have a 90% attendance record with no major disciplinary actions.
7. Obtain two recommendations: one from a home school teacher and one from a non-school reference.

## **APPLYING FOR ADMISSION**

Admission to Central Montco Technical High School is based upon the recommendation of home school teachers and guidance counselors and/or IEP team. An application with PSSA scores, transcript and a copy of the IEP if applicable is required before enrollment. The school enrolls students who thrive in a competitive environment. If you seek a learning environment where academics and applications are taught in tandem, are hard working and highly motivated, you should consider CMTHS. Through careful scheduling with home school guidance 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 Guidance Counselor in order to select the most appropriate program and schedule of academic classes. Although our programs are developed around a three-year curriculum, you may enter CMTHS in 10<sup>th</sup>, 11<sup>th</sup> or 12<sup>th</sup> grade.

## **EQUITY STATEMENT**

The Central Montco Technical High School does not discriminate in its educational programs, activities or employment practices based on sex, color, national origin, sexual orientation, disability, age, religion, ancestry, political opinions or affiliations, or lawful activity in any employee organization.

# CENTRAL MONTCO

# TECHNICAL HIGH SCHOOL

<u>Subject</u>	<u>Grade Level Eligibility</u>
<u>Human Services</u>	
Allied Health Technology H	11-12
Biomedical Technology	11-12
Cosmetology	10-12
Culinary Arts/Baking & Restaurant Practices	10-12
Early Childhood Education	10-12
Health Occupations	10-12
Pre-Nursing	11-12
Public Safety	10-12
<u>Communications/Computer</u>	
Commercial Art	10-12
Digital Media	10-12
Engineering Technology	10-12
Networking Technology	10-12
<u>Construction</u>	
Carpentry/Masonry	10-12
Electricity	10-12
Plumbing	10-12
<u>Transportation</u>	
Automotive Technology	10-12
Collision Repair Technology	10-12

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.

