

Pocono Mountain School District

# Program of Studies

## Graduation Requirements

2016-2017



Grades 9 – 12

The Mission of The Pocono Mountain School District is To Prepare All Students for Tomorrow's Challenges and Opportunities.

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## Keystone Exam Proficiency and Graduation Requirements

Improving academic performance for all children is an essential part of Pennsylvania's educational system. The Commonwealth of Pennsylvania established academic standards that define what students should know and be able to do at specific grade levels. Standards provided a framework and learning targets for students, teachers, and parents. Progress toward the Standards is measured through a state assessment called the Keystone Exams. Keystone Exams will be administered after the completion of the Keystone related course. These exams are part of the criteria for the School Performance Profile (SPP).

Students must demonstrate their ability to meet or exceed the academic standards at a proficient or advanced level. The Pocono Mountain School District uses its own assessment system as well as the Keystone Exams to measure students' proficiency. In addition, to be eligible for high school graduation all students must complete 22 credits.

Students who meet the prerequisites may earn graduation credit for Algebra I, French, and Spanish when taken in the seventh or eighth grade. These credits will be utilized in calculation of class rank and grade point average.

For each successful year of participation at the Monroe Career and Technical Institute, students will receive three (3) credits.

### KEYSTONE TUTORIAL

A Keystone Tutorial course will be required for students who do not demonstrate proficiency on the Keystone Literature, Algebra I, and/or Biology Exams.

By the end of grade 12, students must demonstrate proficiency on each Keystone exam or successful completion of Project-Based Assessments. This is a local school board requirement for graduation.

### ACADEMIC STANDARDS DEMONSTRATION

Completion of a course sequence is the recommended process for demonstrating academic standards attainment. Other ways to demonstrate academic standards attainment are:

- Complete standards by meeting the goals of an Individual Education Plan (I.E.P.)
- Complete standards when the student is in a pre-approved foreign exchange program (NOTE: student standard completion will be evaluated upon the student's return to school)

### SCHEDULING LIMITATIONS

A full schedule in the high school consists of 30 class periods a week. Students must schedule all class periods. Many courses mandate specific requirements. The number of students electing a course and the availability of teachers will determine whether or not a course will be offered. In these cases, students may be assigned to their other choices.

## 2016-2017 Course Sequencing Guide

### CORE COURSE SEQUENCES

#### HONORS

The Pocono Mountain School District provides Honors courses for students with high academic potential. Due to the demands of these courses, weighted grades are used to acknowledge student achievement. The AP programs follow the College Examination Board standards. The content of these courses is predetermined and students are encouraged to take the AP test that most colleges recognize and use to determine placement in their programs.

<b>Grade</b>	<b>English Language Arts (ELA)</b>	<b>Mathematics</b>	<b>Science</b>	<b>Social Studies</b>	<b>World Language (not a core course)</b>
9	Honors	Honors Geometry	Honors Biology	Elective *AP Human Geography	
10	Honors	Honors Algebra II	Honors Chemistry *AP Biology	Honors Civics *AP US History *AP European History *AP Psychology *AP Human Geography *AP World History	*AP Spanish *AP French
11	Honors  *AP Language & Composition	Honors Functions	Honors Physics *AP Biology *AP Chem	Honors Modern US History *AP European History *AP US History *AP Psychology *AP Human Geography *AP World History	*AP Spanish *AP French
12	Honors  *AP Language & Composition *AP Literature & Composition	Essentials of Calculus *AP Calc AB *AP Calc BC *AP Statistics	*AP Biology *AP Physics *AP Chem	Honors World History *AP European History *AP US History *AP Psychology *AP Human Geography *AP World History	*AP Spanish *AP French *AP German

## ACADEMIC

The academic program will prepare students to demonstrate mastery of all graduation standards through both theoretical and hands-on applications. This program will stress the discovery of scientific principles, the development of mathematical proofs, the rationale of literary criticism, and the understanding of principles of the social sciences. The academic program is designed to prepare students to enter a post-secondary education.

<b>Grade</b>	<b>English Language Arts (ELA)</b>	<b>Mathematics</b>	<b>Science</b>	<b>Social Studies</b>
9	Academic ELA 9	Academic Algebra I	Biology	Elective
10	Academic ELA 10	Academic Geometry	Chemistry	Civics
11	Academic ELA 11	Academic Algebra II	Physics or Earth Science	Academic Modern US History
12	Academic ELA 12	Academic Functions Statistics	Elective	Academic World History

## CORE CLASSES

The program will prepare students to demonstrate mastery of all graduation standards. In this curriculum, students will be asked to use their knowledge to solve real and/or simulated problems. Hands-on applications in science, mathematics, English language arts and problem solving will be emphasized. This program will prepare students to enter post-secondary schools or the work force.

<b>Grade</b>	<b>English Language Arts (ELA)</b>	<b>Mathematics</b>	<b>Science</b>	<b>Social Studies</b>
9	ELA 9	Algebra IA	Biology	Elective
10	ELA 10	Algebra IB	General Physical Science	Civics
11	ELA 11	Geometry	Earth Science	Modern US History
12	ELA 12	Algebra II	Elective	World History

## POCONO MOUNTAIN ACADEMY PROGRAM

The Academy Program will prepare students to demonstrate mastery of all graduation standards. This program will prepare students to enter the work force and/or enter post-secondary school. Leveled courses (Honors, Academic or Core) may be offered to meet specific needs of enrolled students.

Grade	English Language Arts (ELA)	Mathematics	Science	Social Studies
9	ELA 9	Algebra IA	Biology	Elective
10	ELA 10	Algebra IB	General Physical Science	Civics
11	ELA 11	Geometry	Earth Science	Modern US History
12	ELA 12	Algebra II	Elective	World History

## NCAA ATHLETIC ELIGIBILITY

Students seeking to participate in college level athletics must meet academic eligibility requirements established by the National Collegiate Athletic Association (NCAA). Because recent changes have been implemented for Divisions I and II colleges & universities starting with the Class of 2016, it is important for student-athletes to be aware of the classes they choose to fulfill eligibility requirements. As a student-athlete, the NCAA and college admission professionals expect students to compare their course selections and high school transcript to the NCAA requirements. A worksheet to assist parents and students with eligibility requirement is available on the NCAA web site: [www.ncaa.org](http://www.ncaa.org). This site also includes the link to register with the NCAA in the student’s junior year of high school.

This Program of Study indicates which PMSD core courses count towards NCAA eligibility at the time this document went to print. However, the NCAA retains the right to make changes to the approved list at any time without advanced notification. The courses that may count toward NCAA eligibility are noted in the course title as (NCAA).

### NCAA DIVISION I INITIAL-ELIGIBILITY

#### ACADEMIC REQUIREMENTS

There are new requirements for college- bound student-athletes enrolling full time at an NCAA Division I college or university on or after **August 1, 2016**.

#### SUMMARY OF CHANGES

- Minimum core-course GPA of 2.300 required for competition;
- Ten core courses required before beginning of senior year for competition; and
- Slight changes in GPA/test score index (sliding scale).

#### NCAA DIVISION I INITIAL-ELIGIBILITY ACADEMIC REQUIREMENTS (NEW)

For college-bound student-athletes enrolling full time at an NCAA Division I college or university on or after August 1, 2016, there are three possible academic outcomes:

1. Full qualifier = competition, athletics aid (scholarship), and practice the first year.
2. Academic redshirt = athletics aid the first year, practice in first regular academic term (semester or quarter).
3. Nonqualifier = no athletics aid, practice or competition the first year.

#### NCAA DIVISION I FULL QUALIFIER:

Requirements for Athletics Aid, Practice and Competition

Students will need to meet the following requirements to receive **athletics aid, practice and compete in** their first year:

- 16 core courses in the following areas:
- 4 years English;
- 3 years math at Algebra I level or higher;
- 2 years natural or physical science (one lab if offered at any high school attended);
- 1 year additional English, math or natural/physical science;
- 2 years social science; and
- 4 years additional from areas above or foreign language, philosophy or comparative religion.

**MINIMUM REQUIRED GPA:**

- Minimum GPA of **2.300** required for competition in those 16 core courses.
- Graduate from high school.

**NCAA DIVISION I FULL QUALIFIER:**

Requirements for Athletics Aid, Practice and Competition Core-course progression:

- Must complete **10** core courses before seventh semester of high school (e.g., senior year).
- Of the **10** core courses completed, **seven** must be in the area of **English, math, or science**.
- These 10 core courses become “locked in” for the purpose of core-course GPA calculation.

\*A repeat of one of the “locked in” courses will not be used if taken after the seventh semester begins.

**DIVISION I SLIDING SCALE CHANGES**

The full sliding scale can be found at [www.eligibilitycenter.org](http://www.eligibilitycenter.org) under Resources.

OLD			NEW		
Core GPA	SAT (critical reading/math only)	ACT Sum	Core GPA	SAT (critical reading/math only)	ACT sum
2.725	730	59	2.725	730	60
2.700	730	60	2.700	740	61
2.675	740-750	61	2.675	750	61
2.450	840-850	70	2.450	840	70
2.425	860	70	2.425	850	70
2.150	960	80	2.150	960	81
2.125	960	81	2.125	970	82
2.100	970	82	2.100	980	83
2.075	980	83	2.075	990	84
2.050	990	84	2.050	1000	85
2.025	1000	85	2.025	1010	86
2.000	1010	86	2.000	1020	86

## ACADEMIC REDSHIRT:

### REQUIREMENTS FOR SCHOLARSHIP AND PRACTICE

- 16 core courses in the following areas:
  - 4 years English,
  - 3 years math at Algebra I level or higher,
  - 2 years natural or physical science (one lab if offered by any school attended);
  - 1 year additional English, math or natural/physical science;
  - 2 years social science; and
  - 4 years additional from areas above or foreign language, philosophy or comparative religion.
- Minimum required GPA.
  - Minimum GPA of **2.000-2.299** in 16 core courses.
- Sliding scale.
  - Minimum ACT sum or SAT score (critical reading/math only) that matches the 16 core-course GPA.

Student-athletes who fail to meet the required 10 core courses prior to the start of the seventh semester (seven of which must be in English, math, or natural or physical science), will be allowed to retake core courses in the seventh or eighth semester, which will be used in their academic certification for the purpose of meeting the academic redshirt requirements.

### DIVISION I SLIDING SCALE

(Abbreviated)

*The full sliding scale can be found at [www.eligibilitycenter.org](http://www.eligibilitycenter.org) under Resources.*

OLD			NEW		
Core GPA	SAT (critical reading/math only)	ACT Sum	Core GPA	SAT (critical reading/math only)	ACT Sum
3.550 & above	400	37	2.700	740	61
3.500	420	39	2.600	780	64
3.400	460	42	2.500	820	68
3.300	500	44	2.400	860	71
3.200	540	47	2.300	900	75
3.100	580	49	2.299	910	76
3.000	620	52	2.200	940	79
2.900	660	54	2.100	980	83
2.800	700	57	2.000	1020	86

## ACADEMIC REDSHIRT:

Requirements for Scholarship and Practice: If a college bound student athlete meets these requirements, he/she can receive an **athletics scholarship** during his/her first year at an NCAA Division I college or university.

After the first term is complete, the student-athlete must be academically successful (successfully completing nine semester hours or eight quarter hours in each applicable term) at his/her college or university to continue to practice for the remainder of the year.



## WHAT IF A STUDENT DOES NOT MEET EITHER SET OF REQUIREMENTS?

If a college-bound student-athlete does not meet either set of requirements, he/she is a **nonqualifier**.

### A nonqualifier:

- Cannot receive athletics aid during the first year at an NCAA Division I college or university.
- Cannot practice or compete during the first year at a Division I college or university.

### Resources

- Resources tab on the NCAA Eligibility Center website([www.eligibilitycenter.org](http://www.eligibilitycenter.org)).
- Initial-Eligibility Resource Index
- Guide for the College-Bound Student-Athlete. Quick Reference Guide.
- Initial Eligibility Brochure.
- NCAA Initial Eligibility Online Course ([www.nfhslearn.com](http://www.nfhslearn.com))
- [www.2point3.org](http://www.2point3.org)

<b>DIVISION I ACADEMIC REQUIREMENTS</b>
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College-bound student-athletes will need to meet the following academic requirements to practice, receive athletics scholarships, and/or compete during their first year.

Core Course Requirement	
<ul style="list-style-type: none"> <li>• <b>Complete 16 core courses in the following areas:</b>4 years of English</li> <li>• 3 years of math (Algebra I or higher)</li> <li>• 2 years of natural/physical science (1 year of lab if offered)</li> <li>• 1 year of additional English, math or natural/physical science</li> <li>• 2 years of social science</li> <li>• 4 years of additional courses (any area above, foreign language or comparative religion/philosophy)</li> </ul>	
Full Qualifier	Academic Redshirt
<ul style="list-style-type: none"> <li>• Complete 16 core courses:                             <ul style="list-style-type: none"> <li>○ Ten of the 16 core courses must be completed before the seventh semester (senior year) of high school</li> <li>○ Seven of the 10 core courses must be in English, math, or science</li> </ul> </li> <li>• Earn a core-course GPA of at least 2.300</li> </ul>	<ul style="list-style-type: none"> <li>• Complete 16 core courses</li> <li>• Earn a core-course GPA of at least 2.000</li> </ul>
<ul style="list-style-type: none"> <li>• Earn the ACT/SAT score matching your core- courses GPA on the Division I sliding scale</li> <li>• Graduate High School</li> </ul>	<ul style="list-style-type: none"> <li>• Earn the ACT/SAT score matching your core-course GPA on the Division I sliding scale</li> </ul>

**Full Qualifier:** College-bound student-athletes may practice, compete and receive athletics scholarship during their first year of enrollment at an NCAA Division I school.

**Academic Redshirt:** College-bound student-athletes may receive athletics scholarships during their first year of enrollment and may practice during their first regular academic term but may NOT compete during their first year of enrollment.

**Nonqualifier:** College-bound student-athletes cannot practice, receive athletics scholarships, or compete during their first year of enrollment at an NCAA Division I school.

## TEST SCORES

When you register for the SAT or ACT, use the NCAA Eligibility Center code of 9999 so your scores are sent directly to the NCAA Eligibility Center from the testing agency. Test scores on transcripts will not be used in your academic certification.

A combined SAT score is calculated by adding reading and math subscores. An ACT sum score is calculated by adding English, math, reading and science subscores. You may take the SAT or ACT an unlimited number of times before you enroll full time in college. If you take either test more than once, the best sub score from different tests are used to meet initial eligibility requirements.

If you take the current SAT before March 2016 and then take the redesigned SAT at a later date, the NCAA Eligibility Center will not combine section scores from the current and redesigned SAT when determining your initial eligibility. The NCAA Eligibility Center will only combine section scores from the same version of the test. Because the redesigned SAT varies in design and measures different academic concepts than the current SAT, a numerical score on the current test may not be equivalent to the same numerical score on the redesigned test.

<b>DIVISION I FULL QUALIFER SLIDING SCALE</b>		
<b>Core GPA</b>	<b>SAT Reading/Math</b>	<b>ACT Sum</b>
3.550	400	37
3.525	410	38
3.500	420	39
3.475	430	40
3.450	440	41
3.425	450	41
3.400	460	42
3.375	470	42
3.350	480	43
3.325	490	44
3.300	500	44
3.275	510	45
3.250	520	46
3.225	530	46
3.200	540	47
3.175	550	47
3.150	560	48
3.125	570	49
3.100	580	49
3.075	590	50
3.050	600	50
3.025	610	51
3.000	620	52
2.975	630	52
2.950	640	53
2.925	650	53
2.900	660	54
2.875	670	55
2.850	680	56
2.825	690	56
2.800	700	57
2.775	710	58
2.750	720	59
2.725	730	60
2.700	740	61
2.675	750	61
2.650	760	62
2.625	770	63
2.600	780	64
2.575	790	65
2.550	800	66
2.525	810	67

2.500	820	68
2.475	830	69
2.450	840	70
2.425	850	70
2.400	860	71
2.375	870	72
2.350	880	73
2.325	890	74
2.300	900	75
2.299	910	76
2.275	910	76
2.250	920	77
2.225	930	78
2.200	940	79
2.175	950	80
2.150	960	81
2.125	970	82
2.100	980	83
2.075	990	84
2.050	1000	85
2.025	1010	86
2.000	1020	86

## DIVISION II ACADEMIC REQUIREMENTS

College-bound student-athletes enrolling at an NCAA Division II school need to meet the following academic rules to practice, compete and receive athletics scholarships during their first year.

Core-Course Requirements	
Complete 16 core-courses in the following areas: <ul style="list-style-type: none"> <li>• 3 years of English</li> <li>• 2 years of math (Algebra I or higher)</li> <li>• 2 years of natural or physical science (including one year of lab science if offered)</li> <li>• 2 years of social science</li> <li>• 3 addition years of English, math, natural or physical science</li> <li>• 4 additional years of English, math, natural or physical science, social science, foreign language, comparative religion or philosophy</li> </ul>	
Full Qualifier	Partial Qualifier
<ul style="list-style-type: none"> <li>• Complete 16 core-courses</li> <li>• Earn a core-course GPA of at least 2.000</li> <li>• Earn an SAT combined score of at least 820 or an ACT sum score of at least 68</li> <li>• Graduate High School</li> </ul>	<ul style="list-style-type: none"> <li>• Complete 16 core courses</li> <li>• Earn a core-course GPA of at least 2.000 OR</li> <li>• Earn an SAT combined score of at least 820 or an ACT sum score of at least 68</li> <li>• Graduate High School</li> </ul>

**Full Qualifier:** College-bound student-athletes may practice, compete and receive athletics scholarship during their first year of enrollment at an NCAA Division II school.

**Partial Qualifier:** College-bound student-athletes may receive athletics scholarships during their first year of enrollment and may practice during their first regular academic term but may NOT compete during their first year of enrollment.

**Nonqualifier:** College-bound student-athletes may not practice, compete or receive athletics scholarships during their first year of enrollment at an NCAA Division II school.

## **TEST SCORES**

If you take the current SAT before March 2016 and then take the redesigned SAT at a later date, the NCAA Eligibility Center will not combine section scores from the current and redesigned SAT when determining your initial eligibility. The NCAA Eligibility Center will only combine section scores from the same version of the test. Because the redesigned SAT varies in design and measures different academic concepts than the current SAT, a numerical score on the current test may not be equivalent to the same numerical score on the redesigned test.

## **ADDITIONAL PROGRAMS**

### **MONROE CAREER TECHNICAL INSTITUTE (MCTI)**

The career technical program begins in the tenth grade. Competitive admission quotas make it necessary for applicants to have a record of good conduct, attendance, and passing grades in their academic subjects before their application can be processed. (See Appendix-pg. 82)

### **DIVERSIFIED OCCUPATIONS**

The Diversified Occupations Program is a work-study program that is designed to combine classroom instruction with on-the-job training in a career area of the student's choice. Students are responsible for finding part-time employment with a local employer. Students are encouraged to find jobs that are directly related to the career field they wish to pursue after graduating from high school.

The Diversified Occupations Program is a partnership between the home school, MCTI, the employer, the student and the student's parents. This training program is designed to help the student transition from school to the world of work while gaining valuable life and work experience. This program is conducted at the student's district high school campus.

### **PATHWAYS TO EXCELLENCE**

#### **CAREER EDUCATION (graduation requirement)**

The 9–12 guidance career education curriculum is based on the American School Counselor Association National Standards. Students will acquire skills to investigate the world of work in relation to knowledge of self and to make informed career decisions. They will complete career assessments and use computer technology to research careers, colleges, trade schools and the military. Resume writing, interviewing skills, college application process and financial aid will be discussed. The program grade level focus will be as follows:

- 9<sup>th</sup> grade – Career Awareness
- 10<sup>th</sup> grade – Career Exploration
- 11<sup>th</sup> grade – Career Planning
- 12<sup>th</sup> grade – Career Implementation

## **CONCURRENT ENROLLMENT**

A senior can elect to participate in the concurrent enrollment program if they meet the following criteria:

- Enrolled in the concurrent enrollment program at any school in agreement with PMSD (check with the guidance department)
- A copy of the student's concurrent enrollment registration must be submitted to the student's guidance counselor
- Student must submit an official transcript from the college attended

## **SPECIAL EDUCATION**

### **PHILOSOPHY**

The Pocono Mountain School District is committed to setting high standards for all students receiving Special Education services. Special Education supports and services in the Pocono Mountain School District include a full continuum of services and are in compliance with federal and state laws.

Every student in the Pocono Mountain School District is provided an educational program that fosters independence and success to transition successfully to post-secondary education or the workforce. Students are provided access to the general education curriculum with specially designed instruction based on the student's individual strengths and needs. An alternative curriculum/program will be provided, if and when appropriate, based on the student's individual strengths and needs.

## **GIFTED EDUCATION**

### **PHILOSOPHY**

Pocono Mountain School District is committed to providing quality Gifted Education supports and services, which encompass the following objectives: expansion of academic attainments and intellectual skills; stimulation of intellectual curiosity, independence and responsibility; development of originality and creativity; development of a positive attitude toward self and others; and development of desirable social and leadership skills.

Students identified as Mentally Gifted based on the results and recommendations of the Multi-Disciplinary Gifted Evaluation (MDGE) will be provided an array of academically challenging courses as outlined in the Gifted Individualized Education Program (GIEP). Further provisions for individual enrichment and/or acceleration will be provided based on the student's individual strengths and needs, such as college level courses and/or independent study.

### **SPECIAL EDUCATION STATEMENT OF LEAST RESTRICTIVE ENVIRONMENT**

The Pocono Mountain School District is committed to delivering curriculum for students with special needs in the Least Restrictive Environment (LRE) with specially designed instruction based upon the results and recommendations of a Multi-Disciplinary Evaluation (MDE) and as outlined in the Individualized Education Program (IEP). Least Restrictive Environment means that a student identified as having a disability will be educated with non-disabled peers to the maximum extent appropriate with supplementary aids and services necessary to achieve individual educational goals and objectives.

# ART

## INTRODUCTION

Art Education is a curriculum structured to enable all students to develop problem solving skills, artistic technical skills, and individual abilities and ambitions through creative experiences. Students critique their work and the work of other artists. All artistic endeavors are to be of original design and composition. The study of major artistic periods will be incorporated in the course offerings.

## ART SEQUENCE

Course	Grade(s)	Prerequisites
Art Design/Appreciation	9	No Prerequisite
Ceramics I	10, 11, 12	No Prerequisite
Ceramics I; Ceramic Sculpture	10, 11, 12	No Prerequisite
Ceramics II	11, 12	Ceramics I or Ceramic Sculpture
Drawing I	9, 10, 11, 12	No Prerequisite
Drawing II	10, 11, 12	Drawing I
Painting I	9, 10, 11, 12	No Prerequisite
Painting II	10, 11, 12	Painting I
Studio Art I	9, 10, 11, 12	No Prerequisite
Studio Art II	10, 11, 12	Any Level I Course
Digital Photography I	9, 10, 11, 12	No Prerequisite
Digital Photography II	10, 11, 12	Digital Photography I
AP Studio Art: 2-D Design	11, 12	Art teacher recommendation; Drawing I, and one of the following: Digital Photography I, Painting I, Ceramics I, Graphic Design, 2D Animation, 3D Animation, Ceramics I; Ceramic Sculpture

## ART DESIGN/APPRECIATION

Grade 9

.25 credit

Students will be introduced to the elements of art and design in two and three-dimensional projects through creative problem solving techniques. Art media will include pencil, acrylic and watercolor paints, silk-screening, plaster and other related materials. Students will explore the beginnings of Art from prehistoric to modern times. A historical and cultural overview will be presented along with studio art projects accompanying time periods and styles studied.

## **CERAMICS I**

Grades 10, 11, 12

.50 credit

The Ceramics I course provides the opportunity for students to experience working in the media of clay. Students are introduced to basic hand building techniques including pinch, coil, and slab. Beginning wheel throwing is also presented in Ceramics I. Students will learn about the versatility of clay bodies, surface decoration and glazing techniques. Studio clay production will vary in styles using ancient methods to contemporary and exploring functional pottery. This course may be taken alone or in conjunction with Ceramic Sculpture.

## **CERAMICS 1; CERAMIC SCULPTURE**

Grades 10, 11, 12

.50 credit

This class explores 3 dimensional forms by using basic hand building and potter's wheel methods. Students will sculpt using additive and subtractive techniques as well as mixed media to create abstract, human, animal, architectural, and nature inspired subject matter. Students will use a variety of glazes, paints, and patinas to create different surface qualities. The basics of tools, clay properties, and decorative techniques will be covered. This course may be taken alone or in conjunction with Ceramics I.

## **CERAMICS II**

Grades 11, 12

.50 credit

*Prerequisite: Ceramics I or Ceramic Sculpture*

Ceramics II students will challenge themselves with hand building and wheel projects that build upon the Ceramics I curriculum. Focus will be on complexity, refinement and glazing. Students will critique their works using aesthetic and technical criteria.

## **DRAWING I**

Grades 9, 10, 11, 12

.50 credit

The Drawing I course provides the students the opportunity for creative experiences in two-dimensional media such as pencil, charcoal, pastel, and pen and ink. Their knowledge of the elements and principles of art provides the foundation for their exploration into composition with an emphasis on technical proficiency.

## **DRAWING II**

Grades 10, 11, 12

.50 credit

*Prerequisite: Drawing I*

The Drawing II course provides the students the opportunity to concentrate on the refinement of their technical skills in two-dimensional media such as pencil, charcoal, pastel, pen and ink, and mixed media. Students will begin to develop an emotional response in their work and be able to critique their compositions.

## **PAINTING I**

Grades 9, 10, 11, 12

.50 credit

The Painting I course offers the students the opportunity for creative experiences in two-dimensional media. Their knowledge of the elements of principles of art provides the foundation for their work of art in acrylic paint, watercolor, ink and wash, and mixed media.

## **PAINTING II**

Grades 10, 11, 12

.50 credit

*Prerequisite: Painting I*

The Painting II course offers the students the opportunity for the continued development of their technical skills in two-dimensional media. The creative use of color, composition, and perspective will effectively utilize their imagination and challenge their artistic abilities.

## **STUDIO ART I**

Grades 9, 10, 11, 12

.50 credit

The Studio Art I course offers the students the opportunity for creative experiences in two-dimensional and three-dimensional media. The students will experience various media such as clay, painting, pen and ink, pastel, sculpture, and found objects. Composition and the principles and elements of art will become an important aspect of the students' work.

## **STUDIO ART II**

Grades 10, 11, 12

.50 credit

*Prerequisites: Any level I course*

The Studio Art II Course provides the students the opportunity to concentrate on the refinement of forms and shapes in both two-dimensional and three-dimensional work. The students will develop an awareness of creative expression through various media and be able to critique their works of art.

## **DIGITAL PHOTOGRAPHY I**

Grades 9, 10, 11, 12

.50 credit

*Requirement: Students should have access to a digital camera with a 5.1 Mega Pixel or higher.*

*The digital Camera should have adjustable aperture and shutter speed capabilities.*

This course involves instruction into all aspects of Digital Photography including basic picture taking, career and visual presentation. While using their digital camera, students will understand the proper use of a variety of camera equipment including a digital camera, flashes, lens, studio lights, tripods, and lighting filters. They will learn digital camera functions including: uploading, downloading, photo editing, and digital manipulation using Photoshop's CS3. Students will develop a better sense of visual organization through the study of compositional elements, visual appeal while creating eye catching images. Students will interact while performing personal photographic assessment, peer assessment, and weekly thematic assignments.



## **DIGITAL PHOTOGRAPHY II**

Grades 10, 11, 12

.50 credit

*Prerequisite: Digital Photography I*

*Requirement: Students should have access to a digital camera with a 5.1 Mega Pixel or higher.  
The digital camera should have adjustable aperture and shutter speed capabilities.*

This course would be a continuation of the level I course; highlighting the basic and exploring more advanced digital photography processes. Students will explore careers in photography while developing their digital portfolio. Studio production with in house photo shoots and commercial assignments will give students a more advanced look into topics such as photojournalism, fashion, advertising, portrait and product shots. Students will interact while performing personal photographic assessment, peer assessment, and weekly thematic assignments.

## **AP STUDIO ART: 2-D DESIGN**

Grades 11, 12

1.0 credit

*Prerequisite: Art teacher recommendation; Drawing I and one of the following: Studio Art I, Digital Photography I, Painting I, Ceramics, I, Graphic Design, 2D Animation, 3D Animation, Ceramics I; Ceramic Sculpture*

AP Studio Art: 2-D Design meets National Standards allowing students to earn college credit and/or advanced placement while still in high school. Students will develop a unified portfolio of original ideas through a variety of media.

## BUSINESS & COMPUTER TECHNOLOGY/PROGRAMMING

The Business & Technology Department is committed to preparing our students for leadership positions in the 21<sup>st</sup> century. Our goal is to provide a broad business background, entrepreneurial zeal, and up-to-date technological opportunities.

### BUSINESS & COMPUTER TECHNOLOGY

<b>BUSINESS</b>		
<b>Courses</b>	<b>Grade(s)</b>	<b>Prerequisites</b>
Accounting I	9, 10, 11, 12	No Prerequisite
Accounting II	9, 10, 11, 12	Accounting I
Business Law	9, 10, 11, 12	No Prerequisite
Introduction to Business	9, 10, 11, 12	No Prerequisite
Sports & Entertainment Marketing	9, 10, 11, 12	No Prerequisite
International Business	10, 11, 12,	No Prerequisite
Small Business Management	10, 11, 12	Any business course
Personal Finance (required course)	12	No Prerequisite

<b>COMPUTER TECHNOLOGY</b>		
<b>Courses</b>	<b>Grade(s)</b>	<b>Prerequisites</b>
2D Animation	9, 10, 11, 12	No Prerequisite
3D Animation	9, 10, 11, 12	2D Animation
Essential Computer Applications Skills	9, 10, 11, 12	No Prerequisite
Web Design	9, 10, 11, 12	No Prerequisite
Digital Media	10, 11, 12	No Prerequisite
Graphic Design	10, 11, 12	No Prerequisite
Computer Literacy	9, 10, 11, 12	Below proficiency on Technology Literacy Assessment

<b>COMPUTER PROGRAMMING</b>		
<b>Courses</b>	<b>Grade(s)</b>	<b>Prerequisites</b>
Introduction to Java Programming	9, 10, 11, 12	No Prerequisite
Visual Basic Programming	9, 10, 11, 12	No Prerequisite
Advanced Java Programming	10, 11, 12	Introduction to Java or Teacher Recommendation
C++ Programming	10, 11, 12	Algebra I
AP Computer Science A Java	11, 12	Introduction to Java and Advanced Java or Teacher Recommendation

## **BUSINESS**

### **ACCOUNTING I**

Grades 9, 10, 11, 12

.50 credit

Accounting is an essential skill for running all kinds of businesses, managing your own money, and building organizational skills. This course is taught in a computer lab and will provide the skills a business owner needs to track and control monies coming in and going out. It includes simulations using accounting software. Learn accounting basics, payroll, financial records and statements and tracking business checking accounts. This course is a must if you dream of owning your own business or majoring in a business program in college.

### **ACCOUNTING II**

Grades 9, 10, 11, 12

.50 credit

*Prerequisite: Accounting I*

Accounting II builds upon the skills learned in Accounting I. This course is taught in a computer lab and focuses on corporate accounting as well as how to track international and Internet sales. Computerized simulations will reinforce your skills and prepare you for business ownership and college business courses.

### **BUSINESS LAW**

Grades 9, 10, 11, 12

.50 credit

Business Law is useful for all students, because all students eventually assume roles as citizens, workers, and consumers in society. Legal knowledge is applied in a fun and meaningful way through debate, guest speakers, Internet research and the mock trial process. Controversial issues and current legal events are highlighted within each unit. Students will discuss, evaluate, and role-play civil and criminal business and finance cases. This course introduces legal issues faced by businesses including legal rights and responsibilities, labor management, environmental issues, technology, copyright, international commerce, and cyber law. Topics include constitutional, statutory, case and administrative laws, laws for minors, civil and criminal law, court jurisdictions, and trial procedures. Students will discuss, evaluate, and role-play civil and criminal business and finance cases. This course is a must for anyone planning a career in business or law.

### **INTRODUCTION TO BUSINESS**

Grades 9, 10, 11, 12

.50 credit

This course introduces students to the world of business and sets a solid foundation for high school, college, and career. Students will be engaged in teamwork, presentations, computer-related activities, and current events while learning the following topics: economic resources and systems, operating a business, ethics and responsibilities, marketing, government regulations, and managing financial and technological resources. Students will discuss and apply business ethics and social responsibility necessary to become better-informed consumers, employees, and citizens. The Business Plan Unit helps students acquire sound values and acceptable attitudes regarding their personal lives and on-the-job success. The knowledge obtained in this class is practiced and reinforced throughout the course and is transferable to other courses as well as everyday life.

## **SPORTS & ENTERTAINMENT MARKETING**

Grades 9, 10, 11, 12

.50 credit

Sports & entertainment sales and marketing professionals work with sporting organizations, entertainment complexes and the non-profit sector. This course will provide a foundation that covers industries such as advertising, travel and tourism, retail and merchandising, sports and entertainment, Internet and social media marketing. Students apply their knowledge and gain practical experience completing a major workplace project such as a sponsorship event, market research project, social media plan, game-night activities, community event, golf tournament or sports information seminar . What makes this class interesting are hands-on activities related to sports marketing, event management, theme parks, push advertising, social media, public relations, and product endorsement. Students should take this course if they are interested in the following career opportunities: sales and marketing manager, account representative, sponsorship coordinator, marketing executive, game day coordinator, sponsorship salesperson, licensing brand manager, community events coordinator or social media coordinator.

## **INTERNATIONAL BUSINESS**

Grades 10, 11, 12

.50 credit

America's future is rooted in the global economy. This course gives students an advantage in securing employment in the international marketplace, and provides students with a global perspective of economics, political structure and culture, and will open their eyes concerning globalization's impact on day-to-day living and personal finance. Learn the customs, cultures, business practices, and legal and ethical issues in other countries to provide students with a broad global perspective. Students will practice currency conversion, develop international marketing strategies, create import and export plans, and examine international trade agreements. This course makes students aware of the growing need for becoming active in a global business economy and provides a solid foundation for college courses in business and international studies.

## **SMALL BUSINESS MANAGEMENT**

Grades 10, 11, 12

.50 credit

*Prerequisite: Any business course*

Small Business Management is designed for students who dream of owning their own business or those who are curious about how an idea can become profitable. Learn about how business decisions are made, what makes a good business plan, how to get financing for your project, and how to be competitive using customer service skills. Simulations, role-playing, and other hands on activities will take you through the real nuts and bolts of how a business starts and grows. Emphasis is placed on creativity in business as you use skills gained in your previous business classes.

## **PERSONAL FINANCE**

Grade 12

.25 credit

Personal Finance, a required course for seniors, provides students with the financial skills necessary to help them in their everyday lives. In this course students will learn to manage money to build wealth, in order to financially attain the lifestyle they desire. The importance of being financially literate is crucial to success and stability. Students will attain the knowledge and skills necessary to learn concepts related to salary, benefits and incentives, taxpayer responsibilities, online and offline financial resources, financial stability, and insurance plans. Students will research and evaluate careers, prepare budgets, complete tax forms, and compare banking and credit options, and understand how to shop for insurance of all types.

## **COMPUTER TECHNOLOGY**

### **2D ANIMATION**

Grades 9, 10, 11, 12

.50 credit

Have you ever seen Phineas & Ferb, Fairly ODD Parents, or Foster's Home for Imaginary Friends? These are great examples of 2D animation. In this 2D Animation course, you will explore the skills it takes to create basic 2D animated cartoon shorts. Of course, you will be working on the computer to build animation skill techniques, but you will also learn basic theory and mechanics behind animation development (like drawing skills, principles, character design, layout and storyboarding).

### **3D ANIMATION**

Grades 9, 10, 11, 12

*Prerequisite: 2D Animation*

.50 credit

3D Animation is a current trend. You may have played video games such as Call of Duty, Gears of War and F.E.A.R. Or, perhaps you have seen Avatar, the Harry Potter series, or even Toy Story. This 3D Animation course will focus on the basic skills used to develop 3D Animation. Throughout the course, you will learn to model 3D objects, apply materials, apply virtual cameras and lighting, and animate using rigid bodies, controllers and modifiers. This course builds an appreciation of all that's behind the scenes for the video games and movies we experience today.

### **COMPUTER LITERACY**

Grades 9, 10, 11, 12

*Prerequisite:* Below proficiency on Technology Literacy Assessment

Students develop computer literacy skills to utilize technology effectively in and out of school. Students learn about computers and related technologies, including hardware, operating systems, and other technological devices. A project-based approach provides students opportunities to use common applications such as word processing, spreadsheet, presentation software, database, and the social and ethical issues related to the internet, information, and security.

### **ESSENTIAL COMPUTER AND APPLICATION SKILLS**

Grades 9, 10, 11, 12

.50 credit

Learning the skills of publication design and layout are essential to business success in today's market. Students will learn the skills necessary to design pamphlets, signs, advertisements, and other business publications. The four most popular tools in the computer world - word processing, spreadsheet, database, and graphics will be the focus of this course. Students will produce documents that can be used for personal use and for use in the business world. Students will utilize and navigate interactive media tools and environments, apply literacy concepts to technological interactions, use online collaborative tools and simulate a business environment while working with Microsoft Office tools.

### **WEB DESIGN**

Grades 9, 10, 11, 12

.50 credit

Learn how to make Web pages, and gain a marketable skill. You will learn how to create a basic Web page, and then add images, sound, video and a number of design formats and techniques. Use HTML, CSS and JavaScript as well as Web page creation software including Adobe Dreamweaver and Flash. All businesses and many organizations have Web sites today. This course is a must to prepare you for any field in today's world.

### **DIGITAL MEDIA**

Grades 10, 11, 12

.50 credit

Digital Media is a course designed to introduce students to multimedia and digital video. Students will use video equipment and up-to-date software program to learn camera angles, shots and editing, and post production techniques. Videos from this class are used for the morning announcements. This course is for creative and motivated students who want to go to the next level in their technology education.

### **GRAPHIC DESIGN**

Grades 10, 11, 12

1.0 credit

Graphic Design is designed to introduce students to the world of digital publishing. Students will use Adobe software (Illustrator and Photoshop) to create graphics and dynamic layouts. This course takes desktop publishing to a whole new level offering realistic projects and a chance to create illusions with graphics.

## **COMPUTER PROGRAMMING**

### **INTRODUCTION TO JAVA PROGRAMMING**

Grades 9, 10, 11, 12

.50 credit

This is the programming course a student should take before taking the C++ course. Students learn to write computer programs using the JAVA language. By the end of the course, students will learn the Java programming skills necessary to write computer programs that implement graphics (MS Paint, picture manipulation); games that incorporate logic (Connect 4, Sudoku, Hangman, puzzles); game show applications (Wheel of Fortune, Jeopardy); animation-base applications (Sonic, Mario, Asteroids); and real world applications (tutorials to help people, simulations).

### **VISUAL BASIC PROGRAMMING**

Grades 9, 10, 11, 12

.50 credit

Visual Programming is a fun, easy to use programming language that can be used to solve problems in business, industry, and science. Visual programming's wide acceptance among professional programmers means that students will be learning a language and writing Windows applications that they can use on the job. Standard programming techniques such as decision, loops, arrays, sorting, and graphics will be integrated with practical problem-solving exercises in a Windows environment.

## **ADVANCED JAVA PROGRAMMING**

Grades 10, 11, 12

1.0 credit

*Prerequisite: Introduction to Java or teacher recommendation*

This course is a continuation from the end of Intro to Java. Students will learn more complex data structures to write the computer programs they desire. One dimensional, two dimensional arrays, and programmer defined objects will be emphasized.

## **C++ PROGRAMMING**

Grades 10, 11, 12

1.0 credit

*Prerequisite: Algebra I*

By the end of this course, students will be able to program average games using the C++ language. This class moves at a faster pace than Intro to Java and utilizes and improves upon the logic skills learned in that course. By the end of this course, students will be able to write almost any program using the C++ language.

## **AP COMPUTER SCIENCE A (JAVA)**

Grades 11, 12

1.0 credit

*Prerequisite: Introduction to Java and Advanced Java or teacher recommendation*

Following the College Board's suggested curriculum designed to mirror college-level computer science courses, AP Computer Science A courses provide students with the logical, mathematical, and problem-solving skills needed to design structured, well-documented computer programs that provide solutions to real-world problems. These courses cover such topics as programming methodology, features, and procedures; algorithms; data structures; computer systems; and programmer responsibilities.

## ENGLISH LANGUAGE ARTS (ELA)

The English Language Arts Department offers two divisions of instruction: the required sequence and the elective series. Guidance counselor and teacher recommendations, test scores, post-secondary education and career plans, course prerequisites, and previous achievement are used to determine appropriate course selection. The **Advanced Placement Literature and Composition and Advanced Placement Language and Composition** courses are offered to juniors and seniors who qualify and express interest. **(Previous English teacher's assessment, completed application form, and a writing sample must be submitted for consideration for admission to this course.)**

The elective series provides students with additional offerings in areas of personal interest. Students are eligible for electives as listed; some electives are available to juniors and seniors only.

### ENGLISH AS A SECOND LANGUAGE ESL

Grades 9, 10, 11, 12

1.0 credit

English as a Second Language (ESL) courses are designed for the rapid mastery of the English language, focusing on reading, writing, speaking, and listening skills. ESL courses usually begin with extensive listening and speaking practice, building on auditory and oral skills, and then move on to reading and writing. Three levels are addressed within the program (beginning, intermediate, and advanced). These courses provide an explanation of basic structures of the English language, enabling students to progress from an elementary understanding of English words and verb tenses to a more comprehensive grasp of various formal and informal styles and then to advance to "regular" English courses. ESL classes may also include an orientation to the customs and culture of the diverse population in the United States. This course fulfills the grade level English Language Arts (ELA) requirement for non-English speaking students.

### ELEMENTS OF LITERACY

Grades 9, 10

.50 credit

*Prerequisite for admission to Elements of Literacy - Students are selected based upon and teacher assessment.*

*testing*

This course is offered to ensure that all students have the requisite reading skills upon graduation. This course offers diagnostic and remedial activities designed to correct reading difficulties and habits that interfere with students' progress in developing reading skills and understandings. Students develop skills in decoding, oral language, phonics, phonological awareness, vocabulary, encoding, comprehension, and strategic reading. Activities are chosen to increase or improve students' reading comprehension, reading technique, and general literacy skills. Ongoing assessment will tailor instruction and accelerate learning. **NOTE: Eligible students will be placed into Elements of Literacy 9A/10A for the fall semester (.50 credit). Students who do not test out of Elements of Literacy 9A/10A after the fall semester, will be placed into Elements of Literacy 9B/10B for the spring semester (0.5 credit). Elements of Literacy will serve as a mandatory elective.**



## **KEYSTONE LITERATURE TUTORIAL**

Grades 11, 12

.50 credit

*Prerequisite – Students are selected based upon not demonstrating proficiency on the Keystone Literature exam and/or English Language Arts (ELA) 10.*

The Keystone Literature Tutorial is an alternative way for your child to graduate if he/she does not demonstrate proficiency on the Keystone Literature Exam. The Keystone Literature Tutorial course will provide support to students in demonstrating their ability to meet to exceed the academic standards at a proficient or advanced level. Students may also be required to retake the Keystone Literature Exam. This course also offers diagnostic and remedial activities designed to correct reading difficulties and habits that interfere with students' progress in developing reading skills and understandings. Activities are chosen to increase or improve students' reading comprehension, reading technique, and general literacy skills. Ongoing assessment will tailor instruction and accelerate learning.

Successful completion of the Keystone Literature Tutorial course may fulfill the required ELA 10 and/or ELA 11 course credit. Proficiency on the Keystone Literature exam retest or successful completion of the Keystone Literature Tutorial course will meet the local graduation requirement.

## **ENGLISH LANGUAGE ARTS (ELA) 9**

Students improve their critical-thinking skills as they determine the underlying assumptions and values within the selected works and as they understand how the literature reflects the society of the time. Students are actively involved in the study of various literary genres, vocabulary/spelling, composition, and public speaking. The intensity of instruction is especially increased in the study of literature and composition. Oral discussion is an integral part of literature courses and written compositions are required.

### **HONORS ELA 9: Introduction to Literature and Composition (NCAA)**

1.0 credit

*Prerequisites: Previous ELA teacher's assessment, completed application form, and a writing sample must be submitted for consideration for admission to this course.*

Honors ELA 9 Introduction to Literature and Composition is designed for those students who consistently demonstrate high interest and achievement in English Language Arts. Students are actively involved in the study of various literary genres, vocabulary/spelling, composition, and public speaking. The intensity of instruction is especially increased in the study of literature and composition. Weekly writing assignments are required, and students are expected to maintain a rigorous schedule of outside reading. ***NOTE: All students enrolled in this course are required to take the Keystone Literature Exam.***

### **ACADEMIC ELA 9: Introduction to Literature and Composition (NCAA)**

1.0 credit

Academic ELA 9 is designed to prepare students for the post-secondary education of their choice. Students are actively involved in a study of various literary genres, vocabulary/spelling, composition,

and public speaking. Regular writing assignments are required, and students are expected to maintain the reading schedule established by their instructor.

### **ELA 9: Introduction to Literature and Composition**

1.0 credit

ELA 9 is designed to prepare students for the post-secondary education of their choice. Students are actively involved in a study of various literary genres, vocabulary/spelling, and communication activities related directly to the demands of emerging technologies. Regular writing assignments are required, and students are expected to maintain the reading schedule established by their instructor.

## **ENGLISH LANGUAGE ARTS (ELA) 10**

**American Literature** courses focus upon commonly known American authors and their work. Students improve their critical-thinking skills as they determine the underlying assumptions and values within the selected works and as they understand how the literature reflects the society of the time. Oral discussion is an integral part of literature courses and written compositions are required.

### **HONORS ELA 10: American Literature and Composition (NCAA)**

1.0 credit

*Prerequisite: Previous ELA teacher's assessment and recommendation is necessary.*

Honors ELA 10 is designed for those students who consistently demonstrate high interest and achievement in English Language Arts. American Literature courses focus upon commonly known American authors and their work. American Literature is the course focus, but students are actively involved in the study of literature, vocabulary/spelling, composition, and public speaking. The intensity of instruction is especially increased in the study of literature and composition. Weekly writing assignments are required, and students are expected to maintain a rigorous schedule of outside reading.

**NOTE: Students enrolled in this course are required to take the Keystone Literature Exam, if they did not take the exam in ELA 9.**

### **ACADEMIC ELA 10: American Literature and Composition (NCAA)**

1.0 credit

Academic ELA 10 is designed to prepare students for the post-secondary education of their choice. American Literature courses focus upon commonly known American authors and their work. American Literature is the course focus, but students are actively involved in the study of literature, vocabulary/spelling, composition, and public speaking. Regular writing assignments are required, and students are expected to maintain the reading schedule established by their instructor. **NOTE: All students enrolled in this course are required to take the Keystone Literature Exam.**

## **ELA 10: American Literature and Composition**

1.0 credit

ELA 10 is designed to prepare students for the post-secondary education of their choice. American Literature courses focus upon commonly known American authors and their work. American Literature is the course focus, but students are actively involved in the study of literature, vocabulary/spelling, and communication activities related directly to the demands of emerging technologies. Regular writing assignments are required, and students are expected to maintain the reading schedule established by their instructor. The ELA 10 course will offer additional support to students as needed. **NOTE: All students enrolled in this course are required to take the Keystone Literature Exam.**

## **ENGLISH LANGUAGE ARTS (ELA) 11**

European Literature courses provide a focus from the Middle Ages to the present. Students will be able to see how earlier works influence later works and how forms and ideas have evolved over time. Students improve their critical-thinking skills as they determine the underlying assumptions and values within the selected works and as they understand how the literature reflects the society of the time. Oral discussion is an integral part of literature courses and written compositions are required.

## **AP LANGUAGE AND COMPOSITION (NCAA)**

Grade 11 (12<sup>th</sup> grade elective only)

1.0 credit

*Prerequisite: Honors ELA 10 with a minimal final grade of 83%, and Academic ELA 10 with a minimum final grade of 93%. If you have not had Honors ELA 10, a writing sample and teacher recommendation must be submitted for consideration for AP Language and Composition. This course may be taken in place of Honors ELA 11.*

Following the College Board's suggested curriculum designed to parallel college-level English courses, AP Language and Composition courses expose students to prose written in a variety of periods, disciplines, and rhetorical contexts. These courses emphasize the interaction of authorial purpose, intended audience, and the subject at hand, and through them, students learn to develop stylistic flexibility as they write compositions covering a variety of subjects that are intended for various purposes.

AP Language and Composition is designed for those students who consistently demonstrate high interest and achievement in English Language Arts and are committed to preparing for the *AP Language and Composition* test.

## **HONORS ELA 11: European Literature and Composition (NCAA)**

1.0 credit

*Prerequisite: Previous ELA teacher's assessment and recommendation is necessary.*

Honors ELA 11 is designed for those students who consistently demonstrate high interest and achievement in English Language Arts. European Literature courses provide a survey of European Literature from Middle Ages to the present. European Literature is the course focus, but students are actively involved in the study of literature, vocabulary/spelling, composition, and public speaking. The intensity of instruction is especially increased in the study of literature and composition. Weekly writing assignments are required, and students are expected to maintain a rigorous schedule of outside reading. An extensive research paper is required.

## **ACADEMIC ELA 11: European Literature and Composition (NCAA)**

1.0 credit

Academic ELA 11 is designed to prepare students for the post-secondary education of their choice. European Literature courses provide a survey of European Literature from Middle Ages to the present. European Literature is the course focus, but students are actively involved in the study of literature, vocabulary/spelling, composition, and public speaking. Regular writing assignments are required, and students are expected to maintain the reading schedule established by their instructor. A research paper is required.

### **ELA 11: European Literature and Composition**

1.0 credit

ELA 11 is designed to prepare students for the post-secondary education of their choice. European Literature courses provide a survey of European Literature from Middle Ages to the present. European Literature is the course focus, but students are actively involved in the study of literature, vocabulary/spelling, and communication activities related directly to the demands of emerging technologies. Regular writing assignments are required, and students are expected to maintain the reading schedule established by their instructor. The ELA 11 course will offer additional support to students as needed. A research paper is required.

## **ENGLISH LANGUAGE ARTS (ELA) 12**

World Literature courses use representative literature selections from ancient and/or modern times from countries around the world. Students improve their critical-thinking skills as they comprehend the diversity of literary traditions and the influences of those traditions. Oral discussion is an integral part of literature courses and written compositions are required.

### **AP LITERATURE AND COMPOSITION (NCAA)**

1.0 credit

*Prerequisite: Honors ELA 11 with a minimal final grade of 83%, and Academic ELA 11 with a minimum final grade of 93% or successful completion of AP Language and Composition. If you have not had Honors ELA 11, a writing sample and teacher recommendation must be submitted for consideration for AP Literature and Composition.*

Following the College Board's suggested curriculum designed to parallel college-level English courses, AP Literature and Composition courses enable students to develop critical standards for evaluating literature. Students study the language, character, action, and theme in works of recognized literary merit; enrich their understanding of connotation, metaphor, irony, syntax, and tone; and write compositions of their own (including literary analysis, exposition, argument, narrative, and creative writing).

AP Literature and Composition is designed for those students who consistently demonstrate high interest and achievement in English Language Arts and are committed to preparing for the *AP Literature and Composition* test. **World Literature** courses use representative literature selections from ancient and/or modern times from countries around the world. World Literature is the course focus, but students are actively involved in the study of literature, vocabulary/spelling, composition, and public speaking. The intensity of instruction is especially increased in the study of literature and composition. Weekly writing assignments are required, and students are expected to maintain a rigorous schedule of outside reading.

An extensive research paper is required. Students are strongly encouraged to take the *AP Literature and Composition* test.

**HONORS ELA 12: World Literature and Composition (NCAA)**

1.0 credit

*Prerequisite: Previous ELA teacher's assessment and recommendation is necessary.*

Honors ELA is designed for those students who consistently demonstrate high interest and achievement in English Language Arts. World Literature courses use representative literature selections from ancient and/or modern times from countries around the world. World Literature is the course focus, but students are actively involved in the study of literature, vocabulary/spelling, composition, and public speaking. The intensity of instruction is especially increased in the study of literature and composition. Weekly writing assignments are required, and students are expected to maintain a rigorous schedule of outside reading. An extensive research paper is required.

**ACADEMIC ELA 12: World Literature and Composition (NCAA)**

1.0 credit

Academic ELA 12 is designed to prepare students for the post-secondary education of their choice. World Literature courses use representative literature selections from ancient and/or modern times from countries around the world. World Literature is the course focus, but students are actively involved in the study of literature, vocabulary/spelling, composition, and public speaking. Regular writing assignments are required, and students are expected to maintain the reading schedule established by their instructor. A research paper is required.

**ELA 12: World Literature and Composition**

1.0 credit

ELA 12 is designed to prepare students for the post-secondary education of their choice. World Literature courses use representative literature selections from ancient and/or modern times from countries around the world. World Literature is the course focus, but students are actively involved in the study of literature, vocabulary/spelling, and communication activities related directly to the demands of emerging technologies. Regular writing assignments are required, and students are expected to maintain the reading schedule established by their instructor. The ELA 12 course will offer additional support to students as needed. A research paper is required.

## ELA ELECTIVES

Course	Grade(s)	Prerequisites
AP Language & Composition	12	Previous ELA teacher's assessment, recommendation, and successful completion of Honors ELA 11
Broadcast Journalism I	10, 11, 12	Previous ELA teacher's recommendation is required
Broadcast Journalism II	11, 12	Broadcast Journalism I
Comedy and Satire	11, 12	No Prerequisite
Drama I	9, 10, 11, 12	No Prerequisite
Drama II	9, 10, 11, 12	Drama I
Fairy Tales, Myths & Legends	9, 10, 11, 12	No Prerequisite
Media Critic	11, 12	No Prerequisite
Novel to Film	11, 12	No Prerequisite
Speech Communication I	9, 10, 11, 12	No Prerequisite
Speech Communication II	10, 11, 12	Speech Communication I
Writer's Workshop I	9, 10, 11, 12	No Prerequisite
Writer's Workshop II	10, 11, 12	Writer's Workshop I
Yearbook I	10, 11, 12	Previous ELA teacher's recommendation is required
Yearbook II	11, 12	Yearbook I

### **AP LANGUAGE AND COMPOSITION (NCAA)**

Grade 12

1.0 credit

*Prerequisite: Previous ELA teacher's assessment, recommendation, and successful completion of Honors ELA 11. If you have not had Honors ELA 11, a writing sample and teacher recommendation must be submitted for consideration for AP Language and Composition.*

Following the College Board's suggested curriculum designed to parallel college-level English courses, AP Language and Composition courses expose students to prose written in a variety of periods, disciplines, and rhetorical contexts. These courses emphasize the interaction of authorial purpose, intended audience, and the subject at hand, and through them, students learn to develop stylistic flexibility as they write compositions covering a variety of subjects that are intended for various purposes. AP Language and Composition is designed for those students who consistently demonstrate high interest and achievement in English Language Arts and are committed to preparing for the AP Language and Composition test.

### **BROADCAST JOURNALISM I**

Grades 10, 11, 12

1.0 credit

*Prerequisite: Previous ELA teacher's recommendation is required.*

Students are introduced to televised news segments, interviews, video footage, natural sound, narration, and text. Today's television reporters must do far more than appear before the camera. They must be writers, cameramen, soundmen, video editors, and artists-as well as be in front of the camera. Broadcast Journalism teaches students to fulfill these many roles. Students will also examine the ethical and legal challenges in television journalism. They will create news documentaries and segments to air on the school's morning news broadcast and may enter competitions in broadcast journalism.

## **BROADCAST JOURNALISM II**

Grades 11, 12

1.0 credit

*Prerequisite: Broadcast Journalism I*

This course enhances Broadcast Journalism I. Students who have completed Broadcast Journalism I will mentor Broadcast Journalism I students in creating televised news segments, interviews, video footage, natural sound, narration, and text. Today's television reporters must do far more than appear before the camera. They must be writers, cameramen, soundmen, video editors, and artists-as well as be in front of the camera. Broadcast Journalism teaches students to fulfill these many roles. Students will also examine the ethical and legal challenges in television journalism. They will create news documentaries and segments to air on the school's morning news broadcast and may enter competitions in broadcast journalism.

## **COMEDY AND SATIRE**

Grades 11, 12

.50 credit

From the ancient Greek playwrights to contemporary television and film, Comedy and Satire will offer a historical overview of the recurring themes and issues that continue to amuse us. An essential course for anyone majoring in communications or English language study, Comedy and Satire will present a chronological survey of western humor with pertinent "visits" to Aristophanes' Athens, Chaucer's England, Shakespeare's Globe Theater, eighteenth century London, and the modern sound stage. The classic comedy of radio, television, and text will be explored from the perspective of a visiting observer. Students will be required to create and present comic pieces of their own, some written in response to the works studied in class. Written viewer and reader response is an important requirement of this challenging elective.

## **DRAMA I**

Grades 9, 10, 11, 12

.50 credit

Drama is an introductory drama course which includes a basic history of the theater, class reading and interpretation of monologues and dialogues, the development of original scenes and improvisational skills, the reading and discussion of one act plays, and a variety of projects developed from the literature of the theater. Students will gain experience in basic dramatic techniques and will develop their abilities to use both vocal and body language in interpreting dramatic roles convincingly. Students will benefit from viewing and critiquing local college and professional productions. The literature of the theater will come alive through reader's theater activities.

## **DRAMA II**

Grades 9, 10, 11, 12

.50 credit

*Prerequisite: Drama I*

Drama II is an advanced drama course which builds upon the skills learned in Drama I. Students will further develop original scenes and improvisational skills to create a variety of advanced projects. Students will gain experience in advanced dramatic techniques and will design a theatrical presentation using the skills gained through Drama I and II.

## **FAIRY TALES, MYTHS, AND LEGENDS**

Grades 9, 10, 11, 12

.50 credit

This engaging course will introduce students to the various fairy tales, myths, and legends that are so commonly found in literature. Through the study of these popular forms of literature, students will develop an understanding of the origins and various versions of well-known narratives and how they relate to classical and contemporary works. A generous dose of popular culture is sampled through examining the tales, myths, and legends as they appear in novels, television, movies, and popular recordings. Regular writing assignments are required.

### **MEDIA CRITIC**

Grades 11, 12

.50 credit

We live in a world dominated by visual media. Media Critic will explore how – for artistic, commercial, and political reasons –media can inspire, inform, and manipulate audiences through the creative use of narratives, camera images, editing, special effects, and music. Students will critically view, discuss, and report on commercial advertising, classic, historical, satirical, and documentary films, international short films, television programming, in pursuit of a greater understanding of the ways these convey meaning, entertain, express points-of-view, and influence public opinion. Through an analysis of the history, evolution, and impact of visual media on our popular culture, this course seeks to prepare its students to see the world around them from an informed and critical perspective.

### **NOVEL TO FILM**

Grades 11, 12

.50 credit

Novel to Film offers a thorough, scholarly examination of classic and contemporary literary works which have been transformed to film. The course offers students a brief overview of the history of motion pictures in an effort to establish a framework for discussion. Whenever possible, complete works or excerpts will be read in support of viewing. Films will range from classics to contemporary efforts. The literature and films will explore techniques and elements essential to both mediums. The mode of instruction will be discussion/group presentation, and reader/viewer response papers will be required on a regular basis.

### **SPEECH COMMUNICATION I**

Grades 9, 10, 11, 12

.50 credit

Increase your capacity to communicate effectively and think critically while having fun in the process. Speech Communication encourages you to become a more confident speaker, presenter, and conversationalist through a variety of in-class activities. Through class activities, you will have the opportunity to research current issues; write and deliver informative, persuasive, and extemporaneous speeches; and read and interpret selections of prose and poetry. Because effective oral communication is an essential life skill, this course can be of great benefit to any student interested in improving his or her formal speaking ability.



## **SPEECH COMMUNICATION II**

Grades 10, 11, 12

*Prerequisite: Speech Communication I*

.50 credit

Speech Communication II is designed for those students who have taken Speech Communication I and are interested in continuing their development as competent presenters and public speakers. This elective includes a unit in the basics of formal speech and debate competition (debate team participation is not required), a review of basic parliamentary procedure, and expanded opportunities for oral interpretation. In addition, students will engage in several different types of interview and speech activities and utilize current technology to polish presentations for a variety of class projects.

## **WRITER'S WORKSHOP I**

Grades 9, 10, 11, 12

.50 credit

Writer's Workshop I is an introductory writing course for those students who enjoy writing of all types. The course focuses on fundamental principles like plot, structure, character, voice, dialogue, description, and point of view. Students will create and polish drafts for consideration by small and large group workshops. Further, students will distinguish between and practice the editing and revision of their writing.

## **WRITER'S WORKSHOP II**

Grades 10, 11, 12

.50 credit

*Prerequisite: Writer's Workshop I*

Writer's Workshop II is an advanced course for students who have completed Writer's Workshop I and will help students to further develop and refine their craft. The course features a variety of sophisticated writing models, and students are encouraged to publish their work in the school's literary magazine. In addition, students will be encouraged to enter their work in a variety of local, regional, and national writing contests.

## **YEARBOOK I**

Grades 10, 11, 12

1.0 credit

*Prerequisite: Previous -ELA teacher's recommendation is required*

This rigorous course is designed to use desktop publishing and other publication techniques to complete all phases of yearbook and literary magazine production. The yearbook will be designed, marketed and distributed through the diligent work of the class members. Since much of the production work involves working independently on individual assignments outside the traditional classroom environment, students must submit a **written recommendation** from a previous high school ELA teacher. Also, students must submit a writing sample to the advisor prior to admission to the course.

## **YEARBOOK II**

Grades 11, 12

1.0 credit

*Prerequisite: Yearbook I*

This rigorous course builds upon Yearbook I design, desktop publishing and other publication techniques to complete all phases of yearbook and literary magazine production. The yearbook will be

designed, marketed and distributed through the diligent work of the class members. Since much of the production work involves working independently on individual assignments outside the traditional classroom environment, students must have completed Yearbook I. Students in Yearbook II mentor Yearbook I students.

<b>FAMILY AND CONSUMER SCIENCES</b>
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Family and Consumer Sciences provide a comprehensive program which integrates math, reading, science and English skills, aptitudes and interests of the students into courses that enhance their career interests. Each experience is a unique opportunity to learn by doing. The curriculum reflects advances and trends in society, science and technology as well as stressing the importance of basic core subject skills. A variety of courses offer students an opportunity to develop life skills, prepare for post-secondary education, establish a positive work ethic and participate in community service. Students may choose from three major career pathways.

Students are provided experiences, which integrate academic skills and principles with practical life application or career potential. Educational expectations are high and core subject comprehension is an integral part of Family and Consumer Science. Each course involves math, reading, reading comprehension, research, problem solving, critical thinking, teamwork and individual projects.

<b>Course</b>	<b>Grade(s)</b>	<b>Prerequisites</b>
Child Development I	10, 11, 12	No Prerequisite
Child Development II	11, 12	Child Development I
Contemporary Foods of the World I	9, 10, 11, 12	No Prerequisite
Creative Fashion I	9, 10, 11	No Prerequisite
Creative Fashion II	10, 11, 12	Creative -Fashion I
Creative Fashion III	11, 12	Creative Fashion II
Contemporary Foods of the World II	10, 11, 12	Contemporary Foods of the World I

### **FASHION and TEXTILES (General Course Description)**

There are three levels of course work available within the Fashion and Textiles area of Family and Consumer Science. These courses are not specific to fashion design however the course explores careers within the field such as: interior design, entrepreneurship, costume design, pattern making, color consultant, personal shopper and many other possibilities.

## CREATIVE FASHION I

Grades 9, 10, 11

.50 credit

Creative Fashion I introduces students to the skills, principles and equipment of hand and machine sewing. Students are expected to complete the required differentiated sewing projects using time management skills. Students are also encouraged to work on projects (of their own choice) that challenge their sewing abilities. Fabric and supplies are available to students however it may be necessary for **students to purchase certain project materials that are not covered under the course specifications.** **Students should have an understanding of basic math skills such as measurement and geometry as well as reading and comprehension skills.** Basic lifetime skills are learned through problem solving, critical thinking and creative expression. This is an introductory course for students interested in pursuing careers in the fashion and textile industry. Areas of study include: tools & equipment, fabrics, pattern layout & symbols, machine use and simple construction principles.

## CREATIVE FASHION II

Grades 10, 11, 12

.50 credit

*Prerequisite: Creative Fashion I*

Creative Fashion II offers students the opportunity to experience advanced technology in the textile career, home sewing or entrepreneurship. Students are expected to strengthen their sewing skills by learning about today's technology in the fashion industry through projects that use computerized embroidery and pattern making. Students will practice fashion illustration, window display, over lock sewing machine skills, draping, pattern making, clothing construction, quilting and specialty fabric usage. **Though most fabric and supplies are provided for the student it may be necessary for some supplies to be purchased by the student.**

## CREATIVE FASHION III

Grades 11, 12

.50 credit

*Prerequisite: Creative Fashion II*

Creative Fashion III is the final course in the textile career pathway. Students are actively involved in preparing for post-secondary education in the field of fashion. Students are expected to perform on a business and professional level by creating projects with a much higher level of difficulty and standard. Sewing skills previously learned will improve from amateur to professional standards of business, design and marketing. A Portfolio is established for secondary education or business pursuit. The following areas are part of the course of study: Fashion History, Fashion Designers, Haute Couture Fashion, Fashion Knock-offs, Fiber Testing, Fabric Analysis, Fashion Writing, Pattern Alterations, and Clothing Construction using personal logos and personalized designs. Students are also expected to make their own patterns and designs as well as create these designs as part of the portfolio entry. **Though most fabric and supplies are provided for the student it may be necessary for some supplies to be purchased by the student.**

## **CHILD CARE and DEVELOPMENT (General Course Description)**

The three levels of Child Growth and Development give students the opportunity to explore various aspects of careers related to children. These careers are not limited to Child Care Professionals or teachers of young children. Careers in which knowledge of children is of importance include lawyer, doctor, writer, therapist, architect, or marketing analyst. Throughout the program the students build on

theories of child development, interact with children, and develop learning programs. Each level requires the student to organize their accomplishments into a working portfolio, which, at the end of Level 3, will become the student's professional portfolio. Coursework is based on the Child Development Associate (CDA) requirements.

The Family and Consumer Sciences Department and the Child Growth and Development program entered an articulation agreement with Northampton Community College. This agreement gives high school students the opportunity to earn college credit toward an Associate Degree in Early Childhood Education from NCC. These credits may be transferable to other schools based on the materials presented in the professional portfolio. To be considered for the credits, the student must successfully complete Levels 1, 2 and 3 of the Child Growth Development course of study. The student must also successfully complete all competencies in addition to hourly requirements.

### **CHILD DEVELOPMENT I**

Grades 10, 11, 12

1.0 credit

This is the introductory course, offering students an opportunity to develop skills for working with children. The focus is on children from prenatal to age 5. This level includes a unit on parenting skills, child development theory, and understanding the areas and sequences of growth and development. Safety and caring for a child are essential aspects of this course. Topics in the second marking period include activities useful for teaching young children. Units include storytelling, dramatic play, writing, math activities, nutrition, and art. Projects are designed from an early childhood education point of view.

### **CHILD DEVELOPMENT II**

Grades 11, 12

1.0 credit

*Prerequisite: Child Development I*

This course gives students an opportunity to focus on the school-age child and to explore the world of Special Education. Students plan a theme-based learning center that is developmentally appropriate for a certain age group. They also create bulletin boards, book and activity projects, lesson plans, and peer teaching. Students have the opportunity to work with multiple disability and life skills students for several weeks during the course. Students taking Child Development II/III must possess good time-management skills and initiative as this is a hands-on, project-oriented course.

### **CONTEMPORARY FOODS OF THE WORLD I**

Grades 9, 10, 11, 12

.50 credit

Contemporary Foods of the World I is the first course in the culinary path which provides students with the opportunity to develop basic food preparation skills and understanding. Students will study kitchen safety and sanitation, measurement, basic food preparation skills, as well as nutritious meal planning. Units of study include: Grain Foods, Vegetables, Fruits, Dairy Products, Eggs, Meat, Poultry, Salads, Casseroles, Soups, Breads, Cakes, Cookies, Pies, and Candies. The student is expected to successfully complete quizzes, tests, class work and research in order to participate in lab activities. The student is encouraged to develop consumer strategies and skills, and apply nutrition analysis. These and other important factors related to food and nutrition are offered in this course. Students are expected to perform basic math skills as well as reading and comprehension skills. Students should have the ability to follow both written and verbal directions.

## CONTEMPORARY FOODS OF THE WORLD II

Grades 10, 11, 12

.50 credit

*Prerequisite: Contemporary Foods of the World I*

Contemporary Foods of the World II is designed to focus on the cultural experiences while continuing to perfect culinary skills. Students will study foods and nutrition from the United States as well as from around the world. Students will research the history, traditions, and food of the many regions of the United States as well as other cultures during the course. Students will research the geography, culture, religion, tradition, heritage and history of the countries and prepare a detailed presentation showing how these factors affect the food for that region. Analysis of the commonalities and uniqueness of eating patterns are an essential component of the course. This course is the second in the sequence preparing students for careers in the Culinary Industry and Hospitality Industry.

## HEALTH & PHYSICAL EDUCATION

### HEALTH

Our goal is to develop health literacy in all students. Health literacy is the capacity of an individual to obtain, interpret, and understand basic health information and services and the competence to use such information and services in ways that are health-enhancing. Health-literate individuals understand scientifically based principles of health promotion and disease prevention, incorporate that knowledge into personal health-related attitudes and behaviors, and make good health a personal priority.

#### **Health Education Philosophy:**

To provide all students with the skills and knowledge to promote responsible lifetime decision making and contribute to a healthy and safe society.

#### **Overview:**

Health Education in the Pocono Mountain School District is comprehensive, accurate, up-to-date and relevant. The Health Education program equips students with the skills necessary to weigh options, make responsible decisions and develop behaviors that promote healthful living. Students are encouraged to assess their attitudes and behavior patterns and to understand the impact their life choices have on their communities and on their own well-being.

#### **Grade 9**

. Topics in 9<sup>th</sup> grade Health range from students using communication skills which encourage responsible decision making to personal and social skill development. Content/Skills taught will relate to Human Growth and Development, Personal Health/Family/Social Health, Mental Health and Disease Prevention and Control. Topics discussed include healthy/unhealthy relationships, reproduction, birth control, child birth, abstinence (is promoted and defined as the most effective means of preventing pregnancy and Sexually Transmitted Infections), decision making, and social/personal skills. Students will be provided with up-to-date skills and knowledge relevant to today's rapidly changing society.

## **Grade 12**

Accurate up-to-date health information will be taught pertaining to Family/Personal/Social Health, Substance Abuse Prevention, Disease Prevention and Control, Mental Health, and Human Growth and Development. The course will include classroom experiences that help students acquire the knowledge, attitudes and skills necessary for making health promoting decision, achieving health literacy, adopt health enhancing behaviors and promoting health in other. Students will be provided with instruction that is relevant to today's rapidly changing world. Abstinence will be stressed when dealing with any content or concepts taught related to sexual behavior and relationships. Students will be encouraged to make healthy decisions concerning sexual behavior.

## **PHYSICAL EDUCATION**

### **Physical Education Philosophy**

To expose all students to a variety of physical activities, sport, and fitness concepts to better provide enjoyment of physical activity, as well as build social, psychomotor, and cognitive skills that will lead to an active and healthy life.

### **Overview**

Physical Education contributes to the physical, intellectual, social and emotional well-being of the student. Our curriculum is devoted to purposeful instruction in developmentally appropriate activities to promote a positive self-concept through fitness, sport, dance and lifetime activities. Each student is able to achieve success according to his/her ability. Participation and involvement are required at all levels. Health related fitness is the goal for all students. The curriculum intent is to provide students of all abilities and interests with a variety of movement experiences that will lead to an active and healthy life. Activities are taught in a coeducational environment. The "Fitness gram/Fitness test" is administered each year with the focus on health-related fitness concepts. Students needing adapted physical education are scheduled into a program tailored to meet their needs.

### **Grades 9, 12**

### **COURSE OFFERINGS**

#### **Fitness**

Aerobics  
Cross Country Skiing  
Dance  
Fitness/Circuit Training  
Mountain Biking  
Snow Shoeing  
Track and Field  
Weight Training  
Yoga

#### **Invasion Games**

Basketball  
Flag Football  
Flickerball  
Floor Hockey  
Games  
Lacrosse  
Soccer  
Speedball  
Team Handball  
Tchoukball  
Ultimate Frisbee

### Net/Wall Games

Badminton  
Pickleball  
Table Tennis  
Tennis  
Volleyball

### Adventure Activities

Cooperative Games/Activities  
Hiking  
Kin Ball  
Team Building Activities

### Target Games

Frisbee Golf  
Golf

### Striking/Fielding Games

Softball  
Wiffleball

## HEALTH ELECTIVES

### **HEALTHY LIFESTYLE MANAGEMENT**

Grades 9, 10, 11, 12  
Semester Elective

.50 credit

The main focus of this course is changing behavior of each individual learner. Students will be in a variety of settings ranging from a classroom, to a food lab, to a fitness center. Teachers from the Health and Physical Education department along with the Family and Consumer Science department will work together to assist the students in this unique course. Topics covered will include information about principals of physical fitness, weight management, food choices, menu design and healthy food preparation.

### **PROMOTING WELLNESS**

Grades 10, 11, 12  
Semester Elective

.50 credit

This course provides students the opportunity to expand their knowledge of wellness in a unique way. Students will spend time learning about self-awareness, stress reduction/management, personal and social skills development, nutrition, fitness concepts, meditation and relaxation techniques. The course is designed for all students who have the desire to live a healthy or healthier lifestyle. **Wellness** is an active process of becoming aware of and making choices toward a healthy and fulfilling life. "...a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity." - The World Health Organization. The focus of this course is to increase knowledge of the specific benefits of living a healthy lifestyle.

### **HEALTH EMERGENCIES**

Grades 10, 11, 12  
Semester Elective

.50credit

This course will provide students with an overview of life saving measures for a variety of emergency situations. Students will assess emergency situations and learning how to provide basic first aid. Students will have the opportunity to become certified in First Aid Instruction and Cardiopulmonary Resuscitation (heart-lung resuscitation).

## **FITNESS/SPORT NUTRITION AND PHYSIOLOGY**

Grade 10, 11, 12  
Semester Elective

.50 credit

This course will help students to understand the function of the nutrients in the body and how these nutrients affect health, fitness and athletic performance. Students will be provided with an overview of the importance of nutrients, the understanding how these nutrients can influence exercise performance and good health for both athletes and active individuals. Key content addressed is to understand why proper nutrition helps athletes prevent injury, enhance recovery, improve daily workouts, and maintain optimal health and body weight.

## **PHYSICAL EDUCATION ELECTIVES**

### **MOVEMENT AND SPORT RELATED FITNESS I**

Grades 10, 11  
Semester Elective

.50 credit

Health related fitness is a goal for all students. This standard based elective's intent is to provide students of all abilities and interests with a variety of movement experiences that will lead to an active and healthy life. Activities are taught co-educationally and include fitness, net/wall games, target games, invasion games, adventure activities, and striking and fielding games.

### **MOVEMENT AND SPORT RELATED FITNESS II**

Grades 11, 12

.50 credit

*Semester Elective-Prerequisite: Successful completion of Movement & Sport Related Fitness I and a grade of 80%*

The main focus of this course is high intensity movement. The course is tailored toward students who have high levels of fitness and an intense desire to participate in physical education. Activities are taught co-educationally and include fitness, net/wall games, target games, invasion games, adventure activities, and striking and fielding games.

### **STRENGTH & CONDITIONING I**

Grades 9, 10, 11, 12  
Semester Elective

.50 credit

This course provides students the opportunity to identify and focus on specific individualized training principles for various goals. The course is designed for all students, whether their goals are sport specific, activity driven or simply fitness based. The focus of this course is to apply fitness training principles learned in this course to create an individualized training program. The student will be able to implement the program throughout the semester with guidance to make appropriate changes as implementation progresses.



## **STRENGTH & CONDITIONING II**

Grades 10, 11, 12

.50 credit

Semester Elective – *Prerequisite: Strength and Conditioning I and a grade of 80%*

This course provides students with a solid background in Strength and Conditioning to design and implement a personalized training program for themselves. Students will be introduced to advanced training methods and have the opportunity to try these methods and incorporate them into their own personalized training routines.

## **STRENGTH & CONDITIONING III**

Grades 10, 11, 12

.50 credit

Semester Elective – *Prerequisite: Strength and Conditioning II and a grade of 80%*

This part of the series of Strength and Conditioning courses offered. The course will provide students with a solid background in Strength & Conditioning to design and implement a personalized training program. Students will review advanced training methods and will incorporate these methods into their own personalized training routines. There will be focus on developing and following a regimented fitness plan. The plan will meet the needs of the individual learner and focus on the desired collaborated outcome of the student and instructor.

## **ADVANCED STRENGTH AND CONDITIONING**

Grades 11,12

.50 credit

Semester Elective – *Prerequisite: Strength and Conditioning III and a grade of 80%*

This is the final course in the series. It will focus the student's continued development of their own program and developing new programs. The developed programs will have an emphasis on meeting the needs and goals of any and all individuals regardless of level of fitness. Upon completion of this course, the student will be empowered to develop positive behaviors in fitness, wellness and movement activity for a lifetime.

## **NEW GAMES & ADVENTURES**

Grades 9, 10, 11, 12

.50 credit

Semester Elective

This course provides students the opportunity to participate in activities that traditionally have not been available in physical education. The course is designed for all students. The strategies and skills for each activity will be introduced and reviewed. The focus of this course is to show new ways to be physically active. Students will participate in and learn activity principles for snow shoeing, hiking, Frisbee golf, cooperative games & activities, Kin ball, Team building, aquatic activities and low ropes course elements. Students will also have the opportunity to create their own new games and activities using principles from other games and/or sports.

## **WELLNESS & FITNESS**

Grades 9, 10, 11, 12  
Semester Elective

.50 credit

This course provides students the opportunity to expand their knowledge of wellness and fitness in a unique way. Students will spend time learning about nutrition, wellness, exercise, fitness components and putting that knowledge into action. The course is designed for all students who have the desire to live a healthy or healthier lifestyle. "Without your health, everything else in life will be more difficult." The focus of this course is to increase their knowledge of the specific benefits of living a healthy lifestyle.

## **LEARN TO SWIM**

Grades 9, 10, 11, 12  
Semester Elective

.50 credit

This course is designed for students who have minimal to no swimming experience and would like to learn to swim. The course will focus on the basic water safety techniques, basic skills of floating, proper breathing methods, stroke mechanics, survival techniques and being comfortable in water. The aim of the course is to be a confident swimmer. Strokes learned will vary per student's ability but may include: Front Crawl, Backstroke, Breast Stroke and Side Stroke.

## **LIFEGUARDING**

Grade 12

1.0 credit

Full year course - It would be the 90 days, with 45 health days (This would replace/ be an option for seniors to take as their Physical Education course requirement) This course provides students the opportunity to become certified in Lifeguarding/CPR/AED/First Aid. The course is designed for seniors who would like to become certified, rather taking their traditional physical education during their senior year. Senior health will be included in this course.

## **LIFEGUARD CERTIFICATION**

Grades 10, 11, 12  
Semester Elective

.50 credit

This course provides students the opportunity to become certified in Lifeguarding/CPR/AED/First Aid. Lifeguarding Certification would be the focus of this course. This class would be the same course as the senior Lifeguarding course, without the health component. The course is designed for students of working age to receive lifeguarding certification.

## **AQUATIC SPORT AND FITNESS I**

Grades 9, 10, 11, 12  
Semester Elective

.50 credit

This course provides students the opportunity to participate in aquatic based activities. Classes will consist of Water Polo, Snorkeling, Canoeing/Kayaking, Basketball, Pool Specific games, Deep water running (with float belts), Water dumbbell workouts other pool related activities. The course is designed for everyone, not just advanced swimmers.

## **AQUATIC SPORT AND FITNESS II**

Grades 10, 11, 12

.50 credit

Semester Elective – Prerequisite: Aquatic Sport and Fitness I *and a grade of 80%*

This course is designed for experienced/advanced swimmers. The focus of the course will be on more advanced aquatic and fitness based activities. Activities will include, but are not limited to deep water snorkeling, deep water aquatic games, aquatic group fitness activities and stroke refinement.

# **MATHEMATICS**

Skills and processes are emphasized in mathematics classes which enable students to evaluate and analyze, think critically, use problem-solving strategies, organize data, apply and synthesize ideas, and express mathematical procedures. Students in the Pocono Mountain School District today will live and work in the 21st century, in a world dominated by computers, worldwide communication, and a global economy. The workers of tomorrow must be prepared to absorb new ideas, understand patterns and trends, and solve unconventional problems. Students need to see that mathematics is relevant to their lives. Pocono Mountain School District wants students to think mathematics, to understand mathematics, and to use mathematics. If they can do this, our students will have the confidence and the desire to meet the challenges and opportunities of tomorrow.

## **KEYSTONE ALGEBRA I TUTORIAL**

A Keystone Algebra I Tutorial course will be required for students who do not demonstrate proficiency on the Keystone Algebra I Exam.

## **KEYSTONE ALGEBRA I TUTORIAL**

Grades 11 and 12

.50 credit

*Prerequisite: Students are selected based upon not demonstrating proficiency on the Keystone Algebra I exam and/or Academic Algebra I or Algebra IB.*

The Keystone Algebra I Tutorial is an alternative way for your child to graduate if he/she does not demonstrate proficiency on the Keystone Exam. The Keystone Algebra I Tutorial course will provide support to students in demonstrating their ability to meet or exceed the academic standards at a proficient or advanced level. Students may also be required to retake the Keystone Algebra I exam. Instructors will review and reteach the algebra content to support students working on completing or preparing for the state assigned algebra Project Based Assessment (PBA). Students may also be required to retake the Keystone Algebra I exam.

Successful completion of the Keystone Algebra I Tutorial course may fulfill the required Algebra course credit. Proficiency on the Keystone Algebra I exam retest or successful completion of the Algebra I Tutorial course will meet the local graduation requirement.

## **HONORS PROGRAM**

### **HONORS GEOMETRY (NCAA)**

Grade 9

1.0 credit

*Prerequisite: Successful Completion of 8<sup>th</sup> Grade Algebra I OR teacher/administrative approval*

Honors Geometry is an accelerated course which enhances the depth of the regular geometry curriculum. Geometry is a course that emphasizes logical reasoning, spatial visualization skills, and their application to problem solving. Students will write two column deductive formal proofs and use algebraic skills to set up and solve problems based on geometric representation. One of the most important connections in all of mathematics is between geometry and algebra. The interplay between the two strengthens students' abilities to formulate and analyze problems from both within and outside mathematics. Geometry will emphasize an abstract, formal approach to the study of geometry. The course includes topics such as properties of plane and solid figures, deductive methods of reasoning and use of logic, the study of postulates, theorems and proofs, concepts of congruence, similarity, parallelism, perpendicularity, proportion, and rules of angle measurement in triangles.

### **HONORS ALGEBRA II (NCAA)**

Grade 10

1.0 credit

*Prerequisite: Successful Completion of Academic Algebra I and Honors Geometry OR teacher/administrative approval*

Honors Algebra II is an accelerated math course which enhances the depth of Algebra and is a continuation of Algebra I. Graphing calculators will play an important role as students interpret graphs, explore their properties, and determine relationships between graphs. The properties of real numbers will be extended. The course includes topics such as set theory, operations with rational and irrational expressions, factoring of rational expressions, in-depth study of linear equations and inequalities, quadratic equations, solving systems of linear and quadratic equations, graphing of constant, linear, and quadratic equations, properties of higher degree equations, and operations with exponents.

### **HONORS FUNCTIONS (NCAA)**

Grade 11

1.0 credit

*Prerequisite: Successful Completion of Honors Algebra II OR teacher/administrative approval*

Honors Functions is an accelerated course which combines the study of Trigonometry, Elementary Functions, Analytic Geometry, and Math Analysis topics as preparation for Calculus. Functions include the study of functions that are circular, polynomial, logarithmic, and exponential. The focus on understanding the behavior of functions leads to an emphasis on using a graphing calculator. Students will also learn to resolve vectors, use matrices and determinants to solve systems of equations, and discover complex numbers are not too complex after all.

## ESSENTIALS OF CALCULUS (NCAA)

Grade 12

1.0 credit

*Prerequisite: Successful Completion of Functions OR teacher/administrative approval*

Students will expand their understanding of functions and the role they play in investigating real-world phenomena. The central ideas of calculus involve limit, rate of change, and slope of a tangent line. Essentials of Calculus will help prepare students to take Calculus in college.

## AP CALCULUS AB (NCAA)

Grade 12

1.0 credit

*Prerequisite: Successful Completion of Honors Functions with a minimal final grade of 83%, OR Academic Functions with a minimum final grade of 93% AND teacher/administrative approval.*

This course is intended for students who have a thorough knowledge of college preparatory mathematics, including advanced topics in algebra, coordinate and analytic geometry, and elementary functions. Students will study properties of functions and graphs, limits and continuity, differential and integral calculus. The contents of this course satisfy the AP syllabus prescribed by the College Entrance Examination Board. Students who wish to take AP Calculus must have teacher recommendation from their Functions teacher or administrative approval. Students will be eligible and are encouraged to take the advanced placement examination in May.

**Note:** Students who take AP Calculus may take AP Calculus AB OR AP Calculus BC. Students may NOT take both Calculus courses as there is overlapping content in the courses.

## AP CALCULUS BC (NCAA)

Grade 12

1.0 credit

*Prerequisite: Successful completion of Honors Functions with a minimal final grade of 83%, AND teacher/administrative approval.*

This course is intended for senior students who wish to have an in-depth background in Calculus in preparation for college. The student who successfully completes this course will have a thorough knowledge of first and second semester college level calculus. Students will study properties of functions and graphs, limits and continuity, differential and integral calculus. In addition to these typical AP Calculus AB topics, other content includes Integration by Parts, Integration by Partial Fractions, L'Hopital's Rule, Improper Integrals, Power Series, Taylor Series, and Parametric, Vector, and Polar Functions. Course content satisfies the AP syllabus prescribed by the College Entrance Examination Board. Students will be eligible and are encouraged to take the advanced placement examination in May. **Note:** Students who take AP Calculus may take AP Calculus AB OR AP Calculus BC. Students may NOT take both Calculus courses as there is overlapping content in the courses.

## AP STATISTICS (NCAA)

Grade 12

1.0 credit

*Prerequisite: Successful completion of Honors Functions with minimal final grade of 83%, OR Academic Functions with a minimum final grade of 93% AND teacher/administrative approval.*

Following the College Board's suggested curriculum designed to parallel college-level statistics courses, AP Statistics courses introduce students to the major concepts and tools for collecting, analyzing, and

drawing conclusions from data. Students are exposed to four broad conceptual themes: exploring data, sampling and experimentation, anticipating patterns, and statistical inference. Course content will satisfy the AP Syllabus prescribed by the College Entrance Examination Board. Students will be eligible and are encouraged to take the advanced placement examination in May.

### **STATISTICS (NCAA)**

Grades 11, 12

1.0 credit

*Prerequisite: Successful Completion of Algebra II OR teacher/administrative approval*

Students who have completed Algebra II may take Statistics as their 11<sup>th</sup> or 12<sup>th</sup> grade required math course.

Statistical literacy is vital in today's society; numerical "information" confronts us daily. Today's students need to be able to determine whether claims based on numerical information are reasonable and accurate. Statistics focuses on the introduction of the study of statistics and probability. The course will include topics such as basic probability, odds, descriptive statistics (measures of central tendency, presentation of data (including graphs), normal distribution and measures of variability) and inferential statistics (confidence intervals, linear regression and hypothesis testing). This course does not carry Honors weight.

## **ACADEMIC PROGRAM**

### **STUDENTS TAKING ACADEMIC ALGEBRA I IN 9<sup>TH</sup> GRADE**

#### **ACADEMIC ALGEBRA I (NCAA)**

Grade 9

1.0 credit

*Prerequisite: Successful Completion of 8<sup>th</sup> Grade Essentials of Algebra*

Algebra is the language through which most of mathematics is communicated, and it is necessary for further work in nearly all mathematical subjects. This course presents algebraic methods as problem solving tools. The student will learn how to deal with variables, expressions, linear and quadratic equations, linear inequalities, and translating and solving word problems using equations and inequalities. Graphing calculators for making connections and developing concepts will be used as a teaching tool throughout the year. **\*Note: All students enrolled in this course are required to take the Keystone Exam.**

#### **ACADEMIC GEOMETRY (NCAA)**

Grades 10

1.0 credit

*Prerequisite: Successful Completion of Academic Algebra I*

Geometry is a course that emphasizes logical reasoning, spatial visualization skills, and their application to problem solving. Students will write two column deductive formal proofs and use algebraic skills to set up and solve problems based on geometric representation. One of the most important connections in all of mathematics is that between geometry and algebra. The interplay between the two strengthens students' abilities to formulate and analyze problems from both within and outside mathematics. Geometry will emphasize an abstract, formal approach to the study of geometry. The course includes topics such as properties of plane and solid figures, deductive methods of reasoning and use of logic, the study of postulates, theorems and proofs, concepts of congruence, similarity, parallelism, perpendicularity, and proportion, and rules of angle measurement in triangles.

## ACADEMIC ALGEBRA II (NCAA)

Grade 11

1.0 credit

*Prerequisite: Successful Completion of Academic Algebra I AND Academic Geometry OR teacher/administrative approval*

Academic Algebra II enhances the depth of Algebra and is a continuation of Algebra I. Graphing calculators will play an important role as students interpret graphs, explore their properties, and determine relationships between graphs. The properties of real numbers will be extended. The course includes topics such as set theory, operations with rational and irrational expressions, factoring of rational expressions, in-depth study of linear equations and inequalities, quadratic equations, solving systems of linear and quadratic equations, graphing of constant, linear, and quadratic equations, properties of higher degree equations, and operations with exponents.

## ACADEMIC FUNCTIONS (NCAA)

Grades 11, 12

1.0 credit

*Prerequisite: Successful Completion of Academic Geometry AND Academic Algebra II OR teacher/administrative approval*

Functions includes the study of functions that are circular, polynomial, logarithmic, and exponential. The focus on understanding the behavior of functions leads to an emphasis on using a graphing calculator. You will also learn to resolve vectors, use matrices and determinants to solve systems of equations, and discover that the complex numbers are not too complex after all. To help insure success in Functions, a student must successfully complete all outcomes for pre-requisite courses.

## STATISTICS (NCAA)

Grades 11, 12 (Elective Credit)

1.0 credit

*Prerequisite: Successful Completion of Algebra II OR teacher/administrative approval.*

Students who have completed Algebra II may take Statistics as their 11<sup>th</sup> or 12<sup>th</sup> grade required math course. Statistical literacy is vital in today's society; numerical "information" confronts us daily. Today's students need to be able to determine whether claims based on numerical information are reasonable and accurate. Statistics focuses on the introduction of the study of statistics and probability. The course will include topics such as basic probability, odds, descriptive statistics (measures of central tendency, presentation of data (including graphs), normal distribution and measures of variability) and inferential statistics (confidence intervals, linear regression and hypothesis testing).

## COLLEGE ALGEBRA (NCAA)

Grade 12

*Prerequisite: Successful completion of Statistics*

This course will be offered to 12<sup>th</sup> grade students who have completed Statistics during their 11<sup>th</sup> grade year and is geared for students who are not pursuing careers related to mathematics. This course will review and extend algebraic concepts for students who have already taken Algebra II. Course topics included (but are not limited to) operations with rational and irrational expressions, factoring of rational expressions, linear equations and inequalities, quadratic equations, solving systems of linear and quadratic equations, properties of higher degree equations, operations with rational and irrational exponents, and concepts of logarithms. This course will also include basic trigonometric concepts and look at college algebra from the perspective of college math entrance exams.

## **CORE PROGRAM**

### **Students taking Algebra IA and Algebra IB**

Students in the program will gain a solid foundation of algebraic and geometric concepts. Due to the implementation of the Keystone Algebra I Exam, students in the core level will take Algebra IA in grade 9 and Algebra IB in grade 10 to provide students with the necessary time needed to help better prepare them for the Algebra I Keystone Exam in grade 10.

#### **ALGEBRA IA (.5 credit for NCAA)**

Grade 9

1.0 credit

*Prerequisite: Successful Completion of 8<sup>th</sup> Grade Essentials of Algebra*

Get ready to meet the requirements for life in the 21st century by developing skills in algebra through applications from the first part of a multi-year sequence of Algebra I. This course covers the same topics as the first half of the Algebra I curriculum including the study of properties of rational numbers, ratio, proportion, the rectangular coordinate system, and solving first degree equations and inequalities. Making connections between equations, tables, and graphs of linear equations will be introduced in this course. By associating real-life applications of Algebra with classroom instruction, students are offered a unique way of looking at and learning concepts through the development of concepts, skills, and problem solving. Deficient skills will be emphasized and reinforced within the context of learning Algebra. Graphing calculators for making connections and developing concepts will be used as a teaching tool throughout the year.

#### **Algebra IA Enhancement**

Grade 10

.50 credit

*Prerequisite: This fall, semester course is for students who failed their grade 9 math core course requirement. Successful completion of Algebra IA Enhancement will count as the required grade 9 core math course for Algebra IA for district graduation requirements.*

Algebra IA Enhancement reviews and reteaches the content from Algebra IA and covers the same topics as the first half of the Algebra I curriculum including the study of properties of rational numbers, ratio, proportion, the rectangular coordinate system, and solving first degree equations and inequalities. Making connections between equations, tables, and graphs of linear equations will be introduced in this course. By associating real-life applications of Algebra with classroom instruction, students are offered a unique way of looking at and learning concepts through the development of concepts, skills, and problem solving. Deficient skills will be emphasized and reinforced within the context of learning Algebra. Graphing calculators for making connections and developing concepts will be used as a teaching tool throughout the year.



## ALGEBRA IB (.5 credit for NCAA)

Grade 10

1.0 credit

*Prerequisite: Successful Completion of Algebra IA OR teacher/administrative approval*

Algebra IB is the second course of the multi-year sequence for Algebra I. This course covers the same topics as the second half of the Algebra I curriculum while reinforcing the concepts from Algebra IA including linear and quadratic equations, linear inequalities, and translating and solving word problems using equations and inequalities. Making connections between equations, tables, and graphs of linear equations will be continued from Algebra IA along with the continued study of systems of equations and inequalities. Graphing calculators for making connections and developing concepts will be used as a teaching tool throughout the year. **\*Note: All students enrolled in this course are required to take the Keystone Exam.**

## GEOMETRY (NCAA)

Grades 10, 11

1.0 credit

*Prerequisite: Successful Completion of Algebra IB OR teacher/administrative approval*

Geometry will examine connections between geometry and algebra. Many experiences will be provided to deepen the understanding of shapes and the properties. The course will emphasize logical reasoning, spatial visualization skills, and the application to problem solving. Students will explore and make sense out of how two column deductive formal proofs are written. The interplay between the two strengthens students' abilities to formulate and analyze problems from both within and outside mathematics. Geometry will emphasize an abstract, formal approach to the study of geometry. The course includes topics such as properties of plane and solid figures, deductive methods of reasoning and use of logic, concepts of congruence, similarity, parallelism, perpendicularity, proportion, and rules of angle measurement in triangles.

## ALGEBRA II (NCAA)

Grade 12

1.0 credit

*Prerequisite: Successful Completion of Algebra IA/Algebra IB AND Geometry OR teacher/administrative approval*

Algebra II enhances the depth of Algebra and is a continuation of Algebra I. The properties of real numbers will be extended. The course includes topics such as set theory, operations with rational and irrational expressions, factoring of rational expressions, in-depth study of linear equations and inequalities, quadratic equations, solving systems of linear and quadratic equations, graphing of constant, linear, and quadratic equations, properties of higher degree equations, and operations with exponents. Graphing calculators will play an important role as students interpret graphs, explore properties, determine relationships between graphs and develop the different concepts in Algebra II.

# MUSIC

In this age of scientific achievement and advanced study, an understanding of the aesthetic values of music is required to develop a well-rounded person.

The pressure of our modern society demands high academic standards and achievements. However, the arts cannot be neglected. Music is important to the social and mental well-being of the individual, not only as a diversion from everyday stress, but also as an artistic, and creative stimulus for the mind.

To support this concept, the high school music program has developed the philosophy to challenge the most musically talented students and to provide them a varied outlet for their talents both in the vocal and instrumental areas.

## CONCERT BAND

Grades 9, 10, 11, 12

1.0 credit

*Prerequisite: Participation in the Junior High School Instrumental program or an audition and/or approval by High School Instrumental Teacher.*

The Concert Band, in keeping with the tradition of fine high school concert bands, presents a balanced study of performance literature at its highest level. This band demands the ultimate instrumental performances from its students. The Concert Band presents a mid-winter and spring concert and may attend band adjudication festivals in the spring. Coupled with these performances are carefully selected public appearances within and outside the community.

Concert Band and Concert Choir meet during the same class period. Rehearsal schedules are determined by the directors. Additional rehearsals for either full band or sections of the band are held after school or in the evening when necessary. Students are expected to take part in the instrumental lesson schedule when academics permit.

Concert Band is open to all students in grades nine through twelve who show sufficient proficiency on their chosen instruments. The more qualified students are eligible to participate in district and regional bands where competitive auditions are required. This course runs 57 minutes per day for 180 days.

## CONCERT CHOIR

Grades 9, 10, 11, 12

1.0 credit

*Prerequisite: Participation in the Junior High Choral program or audition and/or the approval of the High School Choir Director.*

Concert Choir is a course offered to high school students to develop healthy vocal skills and musical knowledge through practice and performance of various types of vocal repertoire. Rehearsals are scheduled five times a week during the school day for 57 minutes per day for 180 days.

The Concert Choir will participate in two curricular concerts throughout the school year as well as any additional performance opportunities which may arise. Also, students are eligible to participate in district, regional and all-state level choirs where competitive auditions are required.

Students interested in joining the Concert Choir should contact a member of the music faculty.

## COMBINED BAND/CHORUS

Grades 9, 10, 11, 12

1.0 credit

Refer to Concert Band/Choir descriptions.

## PIANO SKILLS I

Grades 9, 10, 11, 12

.50 credit

*No Prerequisite required*

Piano Skills is for those students who show an interest in studying basic piano playing techniques through music reading and music theory. Students will also study famous composers throughout music history and perform their favorite works.

## PIANO SKILLS II

Grades 10, 11, 12

.50 credit

*Prerequisite: Piano Skills I*

Piano Skills is for those students who show a continued interest in studying basic piano playing techniques through music reading and music theory. Students will also study famous composers throughout music history and perform their favorite works.

## MUSIC THEORY I

Grades 10, 11, 12

.50 credit

*Prerequisite: Completion of one year of Concert Choir or Concert Band in Junior High School or High School, or one semester of Piano Skills.*

Students who intend to pursue a music career will benefit from Music Major I. Students will study the theoretic mechanics of music including major and minor scales, music notation, ear training, melodic and rhythmic notation and the fundamentals of triadic harmony. Students will also be required to develop singing skills and demonstrate basic conducting techniques. Music history will also be taught focusing on the development of music from the Middle Ages to Twentieth Century composition.

## MUSIC THEORY II

Grades 11, 12,

.50 credit

*Prerequisite: Music Theory I*

This course is a continuation of Music Major I. Students explore music techniques, including altered chord, figured bass, harmonic and melodic dictation, and four-part compositions. The study of history, appreciation, and listening is also continued.

## MUSIC THEORY III

Grades 11, 12

.50 credit

*Prerequisite: Music Theory II*

This course expands the material covered in previous music courses with special emphasis on composition and orchestration. Some conducting experience is also given.

## SCIENCE

The science program for grades nine through twelve is presented as a process of inquiry, using scientific approaches for solving problems. The program is designed to help young people become aware of the forces shaping the environment so they may think and act intelligently in a rapidly changing scientific world. Major consideration is given to the process of thinking, concept, knowledge of the sciences, and laboratory experiences.

### KEYSTONE BIOLOGY TUTORIAL

.50 credit

*Prerequisite: Students are selected based upon not demonstrating proficiency on the Keystone exam and/or Biology Course.*

The Keystone Biology Tutorial is an alternative way for your child to graduate if he/she does not demonstrate proficiency on the Keystone Exam. The Keystone Biology Tutorial course will provide support to students in demonstrating their ability to meet or exceed the academic standards at a proficient or advanced level. Students may also be required to retake the Keystone Biology Exam. Successful completion of the Keystone Biology Tutorial course may fulfill the required Biology course credit. Proficiency on the Keystone Biology exam retest or successful completion of the Keystone Biology Tutorial course will meet the local graduation requirement.

Successful completion of the PBA Biology Tutorial course will fulfill the required biology course credit. Proficiency on the Biology Keystone Exam retest or approval of the student's Project-Based Assessment will meet the Biology Keystone Exam graduation requirement.

### HONORS PROGRAM

#### HONORS BIOLOGY (NCAA)

Grade 9

1.0 credit

*Prerequisite: Teacher Recommendation and/or a qualifying score on a science placement test*

Honors Biology courses cover biological systems in more detail. Topics that may be explored include cell organization, function, and reproduction; energy transformation; human anatomy and physiology; and the evolution and adaptation of organisms. **\*Note: All students enrolled in this course are required to take the Keystone Exam.**

#### HONORS CHEMISTRY (NCAA)

Grade 10

1.0 credit

*Prerequisite: Biology, Recommendation and/or a qualifying score on a science placement test*

Honors Chemistry courses cover chemical properties and interactions in more detail. Advanced chemistry topics include organic chemistry, thermodynamics, electrochemistry, macromolecules, kinetic theory, and nuclear chemistry.

## **HONORS PHYSICS (NCAA)**

Grade 11

1.0 credit

*Prerequisite: Biology, Honors Chemistry, Algebra I, Geometry, Algebra II, Algebra III/Trig or Functions may be taken concurrently.*

Honors Physics courses may provide instruction in laws of conservation, kinetics; wave and particle phenomena; electromagnetic fields. Honors Physics requires students to apply higher levels of mathematics to fundamental physical phenomena. A research paper or project utilizing methodologies will be required.

## **ADVANCED PLACEMENT (AP) SCIENCE COURSES (ELECTIVE OFFERINGS)**

### **AP BIOLOGY (NCAA)**

Grades 10, 11, 12

1.0 credit

*Prerequisite: Honors Biology with a minimum final grade of 83%, Biology with a minimum final grade of 93% or successful completion of an AP course*

Adhering to the curricula required by the College Board and designed to parallel college level introductory biology courses, AP Biology courses emphasize science practices and the synthesis of information into major biological concepts. These courses cover the 4 Big Ideas: 1) evolution, 2) the utilization of free energy to maintain homeostasis, 3) the storage, retrieval, transmission, and response to biological information, and 4 interactions between systems. AP Biology courses include college-level, inquiry-based laboratory experiments.

### **AP CHEMISTRY (NCAA)**

Grades 11, 12

1.0 credit

*Prerequisite: Honors Chemistry with a minimum final grade of 83%, Chemistry with a minimum final grade of 93% or successful completion of an AP course*

Following the curricula recommended by the College Board, AP Chemistry courses usually follow high school chemistry and second-year algebra. Topics covered may include atomic theory and structure; chemical bonding; nuclear chemistry; states of matter; and reactions (stoichiometry, equilibrium, kinetics, and thermodynamics). AP Chemistry laboratories are equivalent to those of typical college courses.

### **AP PHYSICS (NCAA)**

Grade 12

1.0 credit

*Prerequisite: Honors Physics with a minimum final grade of 83%, Physics with a minimum final grade of 93% or successful completion of an AP course, Calculus (may be taken concurrently)*

Designed by College Board to parallel college-level physics courses that serve as a partial foundation for science or engineering majors, this AP Physics course will primarily focus on mechanics.

## **ACADEMIC PROGRAM**

### **BIOLOGY(NCAA)**

Grade 9

1.0 credit

Biology courses are designed to provide information regarding the fundamental concepts of life and life processes. These courses include (but are not restricted to) such topics as bioenergetics/homeostasis & transport, cell growth & reproduction/genetics/basic biological principles/chemical basis for life, theory of evolution/ecology. *\*Note: All students enrolled in this course are required to take the Keystone Exam.*

### **CHEMISTRY (NCAA)**

Grade 10

1.0 credit

*Prerequisite: Biology*

Chemistry courses involve studying the composition, properties, and reactions of substances. These courses typically explore such concepts as the behaviors of solids, liquids and gases; acid/base and oxidation/reduction reactions; and atomic structure. Chemical formulas and equations and nuclear reactions are also studied.

### **EARTH SCIENCE (NCAA)**

Grade 11

1.0 credit

*Prerequisite: General Physical Science or Chemistry*

*(Earth Science should be taken in lieu of Physics by students not focusing in a science-related career or college path)*

Earth Science courses offer insight into the environment on earth and the earth's environment in space. While presenting the concepts and principles essential to students' understanding of the dynamics and history of the earth, these courses usually explore oceanography, geology, astronomy, meteorology, and geography.

### **PHYSICS (NCAA)**

Grades 11, 12

1.0 credit

*Prerequisite: Chemistry, Geometry, Algebra II can be enrolled concurrently*

*(Physics should be taken by any student interested in a science-related career or college path)*

Physics courses involve the study of the forces and laws of nature affecting matter, such as equilibrium, motion, momentum, and the relationships between matter and energy. The study of physics includes examination of sound, light, magnetic and electric phenomena.

## **CORE PROGRAM**

### **BIOLOGY (NCAA)**

Grade 9

1.0 credit

Biology courses are designed to provide information regarding the fundamental concepts of life and life processes. These courses include (but are not restricted to) such topics as cell structure and function, general plant and animal physiology, genetics, and taxonomy. *\*Note: All students enrolled in this course are required to take the Keystone Exam.*

### **GENERAL PHYSICAL SCIENCE (NCAA)**

Grade 10

1.0 credit

*Prerequisite: Biology*

General Physical Science courses involve the study of basic chemistry and physics. This course will serve as an introductory survey course and will include such topics as forms of energy, wave phenomenon, electromagnetism, and physical and chemical interactions.

### **EARTH SCIENCE (NCAA)**

Grade 11

1.0 credit

*Prerequisite: General Physical Science or Chemistry*

Earth Science courses offer insight into the environment on earth and earth's environment in space. While presenting the concepts and principles essential to students' understanding of the dynamics and history of the earth, these courses usually explore oceanography, geology, astronomy, meteorology, and geography.

## **POCONO MOUNTAIN ACADEMY PROGRAM**

### **BIOLOGY (NCAA)**

Grade 9

1.0 credit

Biology courses are designed to provide information regarding the fundamental concepts of life and life processes. These courses include (but are not restricted to) such topics as cell structure and function, general plant and animal physiology, genetics, and taxonomy. *\*Note: All students enrolled in this course are required to take the Keystone Exam.*

### **GENERAL PHYSICAL SCIENCE (NCAA)**

Grade 10

1.0 credit

General Physical Science courses involve study of basic chemistry and physics. This course will serve as an introductory survey course and will include such topics as forms of energy, wave phenomenon, electromagnetism, physical and chemical interactions.

## EARTH SCIENCE (NCAA)

Grade 11

1.0 credit

Earth Science courses offer insight into the environment on earth and the earth's environment in space. While presenting the concepts and principles essential to students' understanding of the dynamics and history of the earth, these courses usually explore oceanography, geology, astronomy, meteorology, and geography.

## SCIENCE ELECTIVES

Course	Grade(s)	Prerequisites
Aerospace I	9, 10, 11, 12	No Prerequisite
Aerospace II	9, 10, 11, 12	Aerospace I
Meteorology I	9, 10, 11, 12	No Prerequisite
Meteorology II	9, 10, 11, 12	Meteorology I
Environmental Science	9, 10, 11, 12	No Prerequisite
Forensic Science	9, 10, 11, 12	No Prerequisite
Forensic Science II	9, 10, 11, 12	Forensic Science I
Human Anatomy	10, 11, 12	Biology
Zoology	10, 11, 12	Biology
Pre-Engineering Design	10, 11, 12	Algebra I or Algebra IB
AP Biology	10, 11, 12	See Prerequisites in course description
AP Chemistry	11, 12	See Prerequisites in course description
AP Physics	12	See Prerequisites in course )

**AEROSPACE I** Grades 9, 10, 11, 12  
.50 credit

Aerospace courses explore the connection between meteorology, astronomy, and flight across and around the earth as well as into outer space.

### AEROSPACE II

Grades 9, 10, 11, 12

.50Credit

*Prerequisite: Aerospace I*

Aerospace II courses will continue to explore the connection between meteorology, astronomy, and flight across the around the earth as well as into outer space. In addition to principles of meteorology (e.g., atmosphere, pressures, winds and jet streams) and astronomical concepts (e.g., solar system, stars, and interplanetary bodies), course topics may include the history of aviation, principles of aeronautical decision-making, airplane systems, aerodynamics, and flight theory.

### METEOROLOGY I

Grades 9, 10, 11, 12

.50 credit

Meteorology courses examine the properties of the earth's atmosphere. Topics usually include atmospheric layering, changing pressures, winds, water vapor, air masses, fronts, temperature changes and weather forecasting.



## **METEROLOGY II**

Grades 9, 10, 11, 12

.50 Credit

*Prerequisite: Meteorology I*

Meteorology II will continue to examine the properties of the earth's atmosphere. Topics usually include atmospheric layering, changing pressures, winds, water vapor, air masses, fronts, temperature changes and weather forecasting.

## **ENVIRONMENTAL SCIENCE**

Grades 9, 10, 11, 12

.50 credit

Environmental Science courses examine the mutual relationships between organisms and their environment. In studying the interrelationships among plants, animals, and humans, this course covers the following subjects: photosynthesis, recycling and regeneration, ecosystems, population and growth studies, pollution, and conservation of natural resources.

## **HUMAN ANATOMY**

Grades 10, 11, 12

1.0 credit

*Prerequisite: Biology*

This general science course will introduce students to in-depth study of the human body and biological system. Students will study such topics as anatomical terminology, cells, tissues and typically explore functional systems such as skeletal, muscular, circulatory, respiratory, digestive, reproductive, and nervous systems.

## **FORENSIC SCIENCE I**

Grades 9, 10, 11, 12

.50 credit

This general science course will introduce students to the field of forensic science. Students will be exposed to laboratory techniques: the significance of physical evidence: admissibility in a court of law: encourage electronic searching methods: develop writing and speaking skills: encourage inquiry, cooperation and authentic assessment: and demonstrate experimental limitations of accuracy and observation.

Topics include: physical and trace evidence, hair and fiber analysis, arson accelerants and explosives, toxicology, glass and soil analysis, blood and body fluids, physical patterns, toolmarks and firearms, and general crime scene procedure.

## **FORENSIC SCIENCE II**

Grades 9, 10, 11, 12

.50 Credit

*Prerequisite: Forensic Science I*

This general science course will continue to introduce students to the field of forensic science. Students will be exposed to laboratory techniques: the significance of physical evidence: admissibility in a court of law: encourage electronic searching methods: develop writing and speaking skills: encourage inquiry, cooperation and authentic assessment: and demonstrate experimental limitations of accuracy and observation.

Topics include: physical and trace evidence, hair and fiber analysis, arson accelerants and explosives, toxicology, glass and soil analysis, blood and body fluids, physical patterns, tool marks and firearms, and general crime scene procedure.

## **ZOOLOGY**

Grades 10, 11, 12

1.0 credit

*Prerequisite: Biology*

This general science course will provide students with an understanding of animals, the niche they occupy in the environment or habitat, life cycles, and evolutionary relationships to other organisms. This course should also help students develop an awareness and understanding of the biotic communities.

## **PRE-ENGINEERING DESIGN**

Grades 10, 11, 12

.50 credit

*Prerequisite: Algebra I or Algebra I B completion*

This course will focus on problem-solving skills using a design development process which integrates applications of mathematics and science into pre-engineering activities for students. Students will learn and apply the design process, acquire strong teamwork and communication proficiency, and develop organizational, critical thinking, and problem-solving skills.

# **SOCIAL STUDIES**

The social studies program is designed to foster global citizenship. The scope of the program is such that every student is given the opportunity to investigate and evaluate the cultural, political, social, and economic aspects of many societies. The development of research, critical and analytical thinking, writing, and communication skills is an integral component of the social studies program.

## **HONORS PROGRAM**

### **HONORS CIVICS (NCAA)**

Grade 10

1.0 credit

*Prerequisite: Teacher/Administrator Recommendation and/or a qualifying score on a social studies placement test.*

The Honors Civics course is designed for those students who consistently demonstrate high interest and achievement in Social Studies. This course will examine the general structure and functions of American systems of government, the roles and responsibilities of citizens to participate in the political process, and the relationship of the individual to the law and legal system. Special emphasis is given to developing student skills in critical and analytical thinking, reading of primary and secondary sources, the research process, and research writing.

### **HONORS MODERN U.S. HISTORY (NCAA)**

Grade 11

1.0 credit

*Prerequisite: Teacher/Administrator Recommendation and/or a qualifying score on a social studies placement test.*

Honors Modern U.S. History is designed for those students who consistently demonstrate high interest and achievement in Social Studies. This course will examine the history of the United States from the Civil War or Reconstruction era through the present time and will include a historical review of political, military, scientific, and social developments. Special emphasis will be given to developing student skills in critical and analytical thinking, reading of primary and secondary sources, the research process, and research writing. Course work may include a research paper/project and a schedule of outside reading.

### **HONORS WORLD HISTORY (NCAA)**

Grade 12

1.0 credit

*Prerequisite: Teacher/Administrator Recommendation and/or a qualifying score on a social studies placement test.*

Honors World History is designed for those students who consistently demonstrate high interest and achievement in Social Studies. This course will provide an overview of the history of human society in the past few centuries from the Middle Ages to the present. Students will explore political, economic, social, religious, military, scientific, and cultural developments. Special emphasis will be given to developing student skills in critical and analytical thinking, reading of primary and secondary sources, the research process, and research writing. Course work may include a research paper/project and a schedule of outside reading.

**ADVANCED PLACEMENT (AP) SOCIAL STUDIES COURSES**  
**(ELECTIVE OFFERINGS)**

**AP HUMAN GEOGRAPHY (NCAA)**

Grades 9, 10, 11, 12

1.0 credit

*Prerequisite: Teacher, guidance and/or administrative recommendation for 9<sup>th</sup> grade students. Honors ELA with a final average grade of 93% or higher, or Academic ELA with a final average grade of 83% or higher, or successful completion of any AP course.*

Following the College Board's suggested curriculum designed to parallel college-level Human Geography courses, AP Human Geography introduces students to the systematic study of patterns and processes that have shaped the ways in which humans understand, use, and alter the earth's surface. Students use spatial concepts and landscape analysis to examine human social organization and its environmental consequences and also learn about the methods and tools geographers use in their science and practice.

**AP UNITED STATES HISTORY (NCAA)**

Grades 10, 11, 12

1.0 credit

*Prerequisite: Honors Civics with a final average grade of 83% or higher, or Civics with a final average grade of 93% or higher, or successful completion of any AP course. This course can be taken in addition to or in place of Modern U.S. History.*

Following the College Board's suggested curriculum designed to parallel college-level U.S. History courses, AP U.S. History courses provide students with the analytical skills and factual knowledge necessary to address critically problems and materials in U.S. history. Students learn to assess historical materials and to weigh the evidence and interpretations presented in historical scholarship. The course examines the discovery and settlement of the New World through the recent past.

**AP EUROPEAN HISTORY (NCAA)**

Grades 10, 11, 12

1.0 credit

*Prerequisite: Honors Modern US History with a final average grade of 83% or higher, or Academic Modern US History with a final average grade of 93%, or successful completion of any AP course. This course can be taken in addition to or in place of Honors World History.*

Following the College Board's suggested curriculum designed to parallel college-level European History courses, AP European History courses examine European civilization from the High Renaissance period to the recent past and also expose students to the factual narrative. In addition, these courses help students develop an understanding of some of the principal themes in Modern European history and the abilities to analyze historical evidence and to express that understanding and analysis in writing.

## **AP WORLD HISTORY (NCAA)**

Grades 10, 11,12

1.0 Credit

*Prerequisite: Honors Modern US History with a final average grade of 83% or higher, or Academic Modern US History with a final grade 93% or higher, or successful completion of any AP course. This course can be taken in addition to or in place of Honors World History.*

Following the College Board's suggested curriculum designed to parallel college-level World History courses, AP World History courses examine world history from 8000 BCE to the present with the aim of helping students develop a greater understanding of the evolution of global processes and contracts and how different human societies have interacted. These courses highlight the nature of changes in an international context and explore their causes and continuity.

## **AP PSYCHOLOGY (NCAA)**

Grades 10, 11, 12

1.0 credit

*Prerequisite: Honors ELA with a final average grade of 83% or higher, or Academic ELA with a final average grade of 93% or higher, or successful completion of any AP course.*

Following the College Board's suggested curriculum designed to parallel a college-level psychology course, AP Psychology courses introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals, expose students to each major subfield within psychology, and enable students to examine the methods that psychologists use in their science and practice.

## **ACADEMIC PROGRAM**

### **CIVICS (NCAA)**

Grade 10

1.0 credit

The Civics course will examine the general structure and functions of American systems of government, the roles and responsibilities of citizens to participate in the political process, and the relationship of the individual to the law and legal system.

### **ACADEMIC MODERN U.S. HISTORY (NCAA)**

Grade 11

1.0 credit

Modern U.S. History courses will examine the history of the United States from the Civil War or Reconstruction era through the present time. These courses will include a historical review of political, military, scientific, and social developments.

### **ACADEMIC WORLD HISTORY (NCAA)**

Grade 12

1.0 credit

World History courses will provide an overview of the history of human society in the past few centuries from the Renaissance period to the present. Students will explore political, economic, social, religious, military, scientific, and cultural developments.

## **CORE PROGRAM**

### **CIVICS (NCAA)**

Grade 10

1.0 credit

The Civics course will examine the general structure and functions of American systems of government, the roles and responsibilities of citizens to participate in the political process, and the relationship of the individual to the law and legal system. This course will provide additional support to students as needed.

### **MODERN U.S. HISTORY (NCAA)**

Grade 11

1.0 credit

Modern U.S. History courses will examine the history of the United States from the Civil War or Reconstruction era through the present time. These courses will include a historical review of political, military, scientific, and social developments. This course will provide additional support to students as needed.

### **WORLD HISTORY (NCAA)**

Grades 12

1.0 credit

World History courses will provide an overview of the history of human society in the past few centuries from the Renaissance period to the present. Students will explore political, economic, social, religious, military, scientific, and cultural developments. This course will provide additional support to students as needed.

## **SOCIAL STUDIES ELECTIVES**

Courses	Grade(s)	Prerequisites
Current World Issues	9, 10	No Prerequisite
Legal Education	11, 12	No Prerequisite
Psychology	9, 10, 11, 12	No Prerequisite
Economics	10, 11, 12	No Prerequisite
Philosophy	11, 12	No Prerequisite
Sociology	11, 12	No Prerequisite
Sociology/Peer Support	12	No Prerequisite
AP Human Geography	9, 10, 11, 12	See Course description
AP United States History	10, 11, 12	See course description
AP European History	10, 11, 12	See course description
AP World History	10, 11, 12	See course description
AP Psychology	10, 11, 12	See course description
History and the Media	9, 10, 11, 12	No Prerequisite
Civil Rights	9, 10, 11, 12	No Prerequisite
Military History	9, 10, 11, 12	No Prerequisite
Intro to Human Geography	9, 10, 11, 12	No Prerequisite

## **CURRENT WORLD ISSUES**

Grades 9, 10

.50 credit

Current World Issues courses will enable students to study political, economic, and social issues facing the world. The course will focus on current issues, examine selected issues throughout the 20th century, and look at historical causes or possible solutions.

## **LEGAL EDUCATION**

Grades 11, 12

1.0 credit

Legal Education courses will examine the workings of the U.S. criminal and civil justice systems, including providing an understanding of civil and criminal law and the legal process, the structure and procedures of courts, and the role of various legal or judicial agencies. The history and foundation of U.S. Law (the Constitution, statutes, and precedents) may also be examined.

## **PSYCHOLOGY**

Grades 9, 10, 11, 12

1.0 credit

Psychology courses introduce students to the study of individual human behavior. The course content will include (but is not limited to) an overview of the field of psychology, topics in human growth and development, personality and behavior, and abnormal psychology.

## **ECONOMICS**

Grades 10, 11, 12

.50 credit

Economics courses provide students with an overview of economics with primary emphasis on the principles of microeconomics and the U.S. economic system. These courses may also cover topics such as principles of macroeconomics, international economics, and comparative economics. Economic principles may be presented in formal theoretical contexts, applied contexts, or both.

## **PHILOSOPHY**

Grades 11, 12

.50 credit

Philosophy courses will introduce students to the discipline of philosophy as a way to analyze the principles underlying conduct, thought, knowledge, and the nature of the universe. Course content will include examination of the major philosophers and their writings.

## **SOCIOLOGY**

Grades 11, 12

1.0 credit

Sociology courses will introduce students to the study of human behavior in society. Students in this course will gain an overview of sociology, generally including (but not limited to) topics such as social institutions and norms, socialization and social change, and the relationships among individuals and groups in society.

### **SOCIOLOGY/PEER SUPPORT**

Grade 12

1.0 credit

Sociology/Peer Support focuses on the major components of Sociology listed below, as well as an ongoing training component for the Peers Support Volunteer Program. There is a screening process that must be completed for the Peer Support Volunteer Program.

## **HISTORY AND THE MEDIA**

Grades 9, 10, 11, 12

.50 credit

History and the Media courses focus on the review of major historical events as presented in various forms of media (newspapers, periodicals, opinion papers, news clips, and films). Integrated writing skills would focus on comparing and contrasting one author's presentation of events with that of another. Additionally several forms of media content will be analyzed to determine how the media structure contributed to the development of the ideas or facts presented with students writing arguments to support their analysis.

## **CIVIL RIGHTS**

Grades 9, 10, 11, 12

.50 credit

Civil Right courses focus on examining the various political and social changes that occurred as individuals and groups raised civil rights issues and challenged the status quo throughout US history. Integrated writing activities will include students conducting a short research project to synthesize multiple sources on the subject and to demonstrate comprehension of the topic.

## **INTRO TO HUMAN GEOGRAPHY**

Grades 9, 10, 11, 12

.50 Credit

Human Geography introduces students to the systematic study of patterns and processes that have shaped the way in which humans understand, use and alter the earth's surface. Students use spatial concepts and landscape analysis to examine human social organization and its environmental consequences and also learn about the methods and tools geographers use in their science and practice.

## **MILITARY HISTORY**

Grades 9, 10, 11, 12

.50 credit

Military History courses will provide interested students the opportunity to further examine military-related topics discussed in U.S. History. It will also provide a more robust historical context for understanding modern conflicts. Students will analyze the various accounts of a subject told in various mediums, determining details emphasized in each account.



## TECHNOLOGY & ENGINEERING

The Technology & Engineering program strives to help students become technologically literate in an increasingly technical world. Technological Literacy is the ability to understand, use, assess, and manage technology. Broadly speaking, technology is how people modify the natural world to suit their own purposes. Technology is a body of knowledge separate from but related to the sciences, with specific content and curriculum. The relationship between science and technology is one in which science builds principles or theories and technology provides the practical application of those principles or theories. -Technology & Engineering offers unique opportunities to apply numerous academic concepts through practical, hands-on applications. Technology can be thought of as human innovation in action, and so - Technology & Engineering classes provide students with opportunities to learn through exploration, discovery, and practical application. In order to become informed and responsible decision-makers, Pocono Mountain students must understand the ways in which technology can be used to change and control our environment and its effect on humanity and the world.

Courses	Grade(s)	Prerequisites
Introduction to CAD	9, 10, 11, 12	No Prerequisites
Manufacturing Technology	9, 10, 11, 12	No Prerequisites
Residential Construction & Maintenance	9, 10, 11, 12	No Prerequisites
Advanced 3D CAD	10, 11, 12	Introduction to CAD
Architectural CAD	10, 11, 12	Introduction to CAD
Architectural CAD II	11, 12	Architectural CAD
Wood Technology	9, 10, 11, 12	No Prerequisites

### INTRODUCTION TO CAD

Grades 9, 10, 11, 12

1.0 credit

For Engineers, Architects, Fashion Designers, Graphic Designers, Computer Animators: Introduction to Computer-Aided Design (CAD) will help students learn to use AutoCAD, the international software language of design, and apply it to a variety of drafting and design situations. Topics include familiarization with AutoCAD and the basic elements of computer-aided design as it is used in professional practice. The student gains hands-on experience at the computer while working on a variety of design exercises in various disciplines such as engineering, architecture, computer animation, graphic design, 3D solid modeling, construction, and manufacturing.

### MANUFACTURING TECHNOLOGY

Grades 9, 10, 11, 12

.50 credit

Manufacturing Technology will provide students with hands on opportunities to learn through discovery, exploration and practical applications to build products made from wood, plastics and/or metals. Students will use a variety of tools, safety practices, and assembly and finishing procedures to create different products. This course will provide all students with practical knowledge about the common materials, tools, machines and processes used in the manufacturing industry and our technological world today.

## **WOOD TECHNOLOGY**

Grades 9, 10, 11, 12

.50 credit

If you are interested in a hands on woodworking course in which you will build a small piece of furniture, this is the class for you. The course is an introductory class that introduces students to woodworking experiences. Students will learn how to safely use woodworking tools and power equipment to explore the properties and characteristics of wood by constructing various student centered projects. Basic skills in math and mechanical drawing will be helpful for project planning.

\*\*Elective which will be offered at the East High School during the 2016-2017 school year.

## **RESIDENTIAL CONSTRUCTION & MAINTENANCE**

Grades 9, 10, 11, 12

.50 credit

Residential Construction & Maintenance is designed to give students practical skills that they can use to understand their future homes. It is also designed for students who may consider an occupation in architecture, home renovation, interior design, or construction. The construction topics include house styles, site selection, residential systems, framing, and construction techniques. Home maintenance units are designed to give students practical skills that they can use to repair existing homes. Subjects include sheetrock repair, residential wiring, painting, window glazing, and plumbing repairs. This is a hands-on class that will potentially save students time and money when they become homeowners or tenants.

## **ADVANCED 3D CAD**

Grades 10, 11, 12

1.0 credit

*Prerequisite: Introduction to CAD*

Advanced Computer-Aided Design provides accelerated course work in the disciplines of mechanical engineering computer animation, 3D modeling and parametric solids. Students will acknowledge and demonstrate different aspects of drafting in a real world environment while utilizing computer aided drafting software programs such as Inventor, 3Ds Max Design Studio. Advanced techniques and processes will be studied such as the development of working drawings, utilization of drafting and engineering standards, the concepts of Computer-Aided Manufacturing & Computer Numerical Control, and the process of designing and developing a new concept to fill a market need. This course offers future engineers, architects, and designers an opportunity to get into a deeper level of CAD.

## **ARCHITECTURAL CAD**

Grades 10, 11, 12

1.0 credit

*Prerequisite: Introduction to CAD*

In Architectural Computer-Aided Design, students will apply information learned in Introduction to CAD to design and draw a complete set of plans for a residential house of the student's choice. Drawings of floor plans, window and door schedules, foundation plans, elevations, plot plans, wall sections, and a rendering will be studied in detail. Students pursuing this course can gain a more hands-on experience with architecture by taking Residential Construction & Maintenance.

## ARCHITECTURAL CAD II

Grades 11, 12

1.0 credit

*Prerequisite: Architectural CAD*

Architectural Computer-Aided Design II will expand upon concepts studied in its prerequisite. A similar problem solving computer-based approach will be employed. Expanded and new topics include: electrical plan, mechanical plan (plumbing and heating) as well as structural details, beam and loading calculations, greater detailed interior design, elevations, foundation systems, and alternative materials. Students will apply information learned to design and draw a complete set of plans of a residential house.

## WORLD LANGUAGES

The World Language Department provides a program that strives to prepare students for responsible and intelligent participation in our world. Knowledge of other languages and other cultures is an essential part of understanding others and living peacefully with them.

Three modern languages, French, Spanish, and German are offered by the World Language Department. The descriptions follow:

### **FRENCH I ~ SPANISH I ~ GERMAN I (NCAA)**

Grades 9, 10, 11, 12

1.0 credit

Level I classes will be introduced to basic vocabulary needed in order to communicate with foreign speakers. All information taught is that which deals with the real world and covers topics such as friends, dating, school, and sports. Students begin to compare cultures and examine ways in which customs in the United States differ from those of other countries.

### **FRENCH II ~ SPANISH II ~ GERMAN II (NCAA)**

Grades 9, 10, 11, 12

1.0 credit

**NOTE: German II is offered only for grades 10, 11, and 12**

*Prerequisites: French I, Spanish I, German I*

Level II students increase and improve skills in the four major areas of language: listening, speaking, reading and writing. Communication in the foreign language is stressed. As students continue to study, they become more aware of the structure of the target world language.

**FRENCH III ~ SPANISH III ~ GERMAN III (NCAA)**

Grades 9, 10, 11, 12

1.0 credit

*Prerequisites: French II, Spanish II, German II*

Level III - As students' progress in the target language, they are exposed to greater communication in the areas of reading and writing. Reading short stories further opens doors for the exploration of a different culture. Students strive to perfect their use of grammar and to enhance their existing world language vocabulary.

**AP FRENCH ~ AP SPANISH ~ AP GERMAN (NCAA)**

Grades 10, 11, 12

1.0 credit

*Prerequisites: French III, Spanish III, German III*

Students will further continue to work toward advanced proficiency in the target language through the means of videos, newspapers, magazines, well-known literature selections and review grammar exercises. Materials covered will depend upon the proficiency of the students in the class.

**ELECTIVE WORLD LANGUAGE COURSES**

**SPANISH CULTURE**

Grades 9, 10, 11, 12

.50 credit

This course offers a series of cultural lessons in which students take imaginary trips to actual Spanish-speaking countries. Learning and practicing some target language skills while they explore each country's culture and geography and celebrate various holidays in customs.

**FRENCH CULTURE**

Grades 9, 10, 11, 12

.50 credit

This course offers a series of cultural lessons in which students take imaginary trips to actual French-speaking countries. Learning and practicing some target language skills while they explore each country's culture and geography and celebrate various holidays in customs.

**GERMAN CULTURE**

Grades 9, 10, 11, 12

.50 credit

This course offers a series of cultural lessons in which students take imaginary trips to actual German-speaking countries. Learning and practicing some target language skills while they explore each country's culture and geography and celebrate various holidays in customs.

### **CONVERSATIONAL SPANISH**

Grades 9, 10, 11, 12

.50 credit

In this course, students will focus on learning comprehension and conversational skills. Spoken Spanish will provide comprehension practice using videos music and songs and audio files. Students will hear and use authentic language structures used in simple forms of target language and for communication.

### **CONVERSATIONAL FRENCH**

Grades 9, 10, 11, 12

.50 credit

In this course, students will focus on learning comprehension and conversational skills. Spoken French will provide comprehension practice using videos music and songs and audio files. Students will hear and use authentic language structures used in simple forms of target language and for communication.

### **CONVERSATIONAL GERMAN**

Grades 9, 10, 11, 12

.50 credit

In this course, students will focus on learning comprehension and conversational skills. Spoken German will provide comprehension practice using videos music and songs and audio files. Students will hear and use authentic language structures used in simple forms of target language and for communication.

# APPENDIX

## Connecting Careers and Curriculum for Future Success

The knowledge and skills required to enter college or the workforce are constantly changing. As a result, readying today's students to take the next step in the world can become very demanding. The U.S. Department of Education has identified sixteen (16) Career Clusters that were designed to help students focus on an area of interest and a possible career path. The career clusters were developed to relate occupations to broad industries. Within each cluster are several pathways, which provide a more focused category within that cluster. A career path is a broad spectrum of careers that share similar characteristics and for which employment requirements call for common interests, strengths and competencies. The Pocono Mountain School District is committed to preparing and assisting students to make good decisions about life after graduation from high school. The district has made recommendations for the 9<sup>th</sup> through 12<sup>th</sup> grade courses that lead to each pathway, while still providing a rigorous and relevant curriculum. Each building contains a team of dedicated guidance counselors prepared to assist students in developing their career plans using the Career Clusters as a pathway to reaching one's goals. As your son or daughter progresses through the Pocono Mountain School District, we encourage you to assist in developing their career plans by seeking input and advisement through the building's guidance department.

Questions . . . Questions . . . Questions . . .

### **What are the important questions that I need to ask myself before I begin?**

1. How can I create my future?
2. Where can I find help?
3. How does work fit in my life?

### **What are Career Pathways?**

Each Pathway is a broad grouping of careers that shares similar characteristics with employment requirements that call for many common interests, strengths and competencies. A chosen Pathway can help focus a student's elective courses toward preparing for a specific goal area.

### **Why should I choose a career pathway?**

- To help focus on a career area that matches interests
- To help set goals and discover classes necessary to achieve those goals
- To create career awareness and encourage planning for post-secondary education and opportunities

### **How do I choose a career pathway?**

- You will research various career fields and participate in designated career development activities in middle school, such as building a career portfolio in 8<sup>th</sup> grade.
- Your counselors, parents and teachers will assist you with this choice.
- You will complete the self-assessment as well as other activities.

## **PATHWAYS TO EXCELLENCE**

### **Why should I have an Academic Plan?**

As students, parents and educators, we want all graduates to be able to enter college or the workforce with the knowledge and skills needed to be successful. Preparing students to take his or her place in the world has become very challenging. The knowledge and skills needed to enter college or find a well-paying job have changed from ten or twenty years ago. Today, high school students need similar skills whether they want to enter college or the workplace. Being unprepared can result in additional college cost for you and your child, and may discourage your child from getting the education and career she or he needs and wants.

The Pocono Mountain School District is committed to preparing students for success in the post-secondary endeavor of their choice. For some, this will be a 4-year college. For others, it may be a community college, apprenticeship, certification, military training or entry into the workforce. Our district offers a rigorous and relevant curriculum designed to develop students' strengths and to provide a broad base of knowledge and skills that will enable students to be successful in tomorrow's global society. The Career Pathways Planner contains information about our career Pathways model in addition to the Course Selection Guide for the upcoming school year. All of this information is designed to help students and their families make good decisions about life after graduation from high school. To parents, we encourage you to take an active role in developing your son or daughter's career plans as we strive to create opportunities for each student to experience meaningful career related opportunities during their high school years.

The following has been developed to guide career planning and course selections. Choosing your future is one of the most exciting and challenging decisions you will make. Your selected courses, experiences and accomplishments in high school can lead you to your chosen career path. You have the **opportunity** to choose your future, not leave it to chance or luck. Planning is critical!

### **YOUR FUTURE IS YOUR CHOICE!**

*For a better future, a student should begin to:*

- **Explore different possibilities**
- **Determine your pathway**
- **Choose courses which follow your pathway**
- **Learn what the workforce needs and expects of its employees.**

To help with this planning, talk to your parents, your teachers, and contact your guidance counselor.

*This Career Planning Guide:*

- **Helps you to focus interests and abilities**
- **Identifies occupations which are part of your pathway**
- **Recommends foundation and elective courses which lead to specific career pathways.**

## THE 5 PATHWAY OPTIONS

### **ARTS AND HUMANITIES (AH)**

Designed to cultivate students' awareness, interpretation, application and production of visual, verbal and written work.

#### **Focus Areas:**

- Performing Arts (PA)
- Visual Arts (VA)
- Publishing Arts (PU)

### **BUSINESS AND INFORMATION TECHNOLOGY (BIT)**

Designed to prepare students for careers in the areas of business management, finance and information services covering aspects of managing and processing digital information.

#### **Focus Areas:**

- Business Management (BM)
- Marketing and Sales (MS)
- Finance (F)
- Information Technology (IT)

### **ENGINEERING AND INDUSTRIAL TECHNOLOGY (EIT)**

Designed to cultivate students' interests, awareness and application to areas related to technologies necessary to design, develop, install or maintain physical systems.

#### **Focus Areas:**

- Construction and Architecture (CA)
- Manufacturing (M)
- Engineering and Engineering Technology (ET)
- Transportation, Distribution and Logistics (TDL)

### **HEALTH SCIENCE AND HUMAN SERVICES (HSHS)**

Designed to cultivate students' interests, skills and experience for employment in careers related to family and human needs and in the life, physical and behavioral sciences. In addition, there is focus on therapeutic and diagnostic services, health information, biochemistry and research and development.

#### **Focus Areas:**

- Counseling and Personal Care (CPC)
- Hospitality and Tourism (HT)
- Education (E)
- Law, Public Safety & Government (LPG)
- Health Science (HS)
- Agriculture, Food and Natural Resources (AFN)
- Science, Technology and Math (STM)

### **SCIENCE AND HEALTH (SH)**

Designed to cultivate students' interests in life, physical and behavioral sciences. In addition, it involves the planning, managing and providing of therapeutic services, diagnostic services, health information, biochemistry and research and development.

#### **Focus Areas:**

- Health Science (HS)
- Agriculture, Food & Natural Resources (AFN)
- Science, Technology and Math (STM)



## ARTS AND HUMANITIES COURSE OF STUDY

This four-year plan of study should serve as a guide as you develop your academic core requirements and electives. All plans should meet graduation requirements.

9 <sup>th</sup>		10 <sup>th</sup>		11 <sup>th</sup>		12 <sup>th</sup>	
*English Language Arts	ELA, Academic, or Honors 9	*English Language Arts	ELA, Academic, or Honors 10	*English Language Arts	ELA, Academic, Honors 11 or **AP Lang & Comp	*English Language Arts	ELA, Academic, Honors 12 or AP Lit & Composition **AP Lang & Comp
*Math	Algebra I A Algebra I (Ac) Geometry (Ac/H)	*Math	Algebra I B Geometry (Ac) Algebra II (Ac/H)	*Math	Geometry Algebra II (Ac) Statistics Functions (Ac/H)	*Math	Algebra II Statistics Functions (Ac/H) Essentials of Calculus (H) **AP CalcAB,BC **AP Statistics
*Science	Biology	*Science	**AP Biology Chemistry or General Physical Science Zoology	*Science	**AP Chemistry Physics or Earth Science Pre-Engineering Human Anatomy	*Science	**AP Physics
*Social Studies	**AP Human Geography	*Social Studies	Civics	*Social Studies	Modern US History <b>or</b> **AP US History	*Social Studies	World History <b>or</b> **AP European History Or AP World History
*Health	PE/PE					*Health	PE/PE
<sup>R</sup> World Language	Spanish I, II French I, II German I, II	<sup>R</sup> World Language	Spanish I, II, III French I, II, III German I, II, III	<sup>R</sup> World Language	Spanish III, IV/AP French III, IV/AP German III, IV/AP	<sup>R</sup> World Language	Spanish IV/AP French IV/AP German IV/AP
Courses above are graduation requirements (*) and/or recommended ( <sup>R</sup> ) for this Pathway ** Elective course for this pathway							

## BUSINESS AND INFORMATION TECHNOLOGY (BIT) PATHWAY

Designed to prepare students for careers in the areas of business management, finance and information services covering aspects of managing and processing digital information.

Are you interested in...	Can you...	Do you enjoy...
<ul style="list-style-type: none"> <li>A Business Environment</li> <li>Management</li> <li>Advertising</li> <li>Marketing and Sales</li> <li>Computers and Technology</li> <li>Web Development</li> <li>Presentations to Groups</li> <li>Legal issues</li> <li>Accounting</li> <li>Different work sites</li> </ul>	<ul style="list-style-type: none"> <li>Work easily with others</li> <li>Organize your time efficiently</li> <li>Work with statistics</li> <li>Use computers and other technology</li> <li>Pay attention to details</li> <li>Solve problems</li> <li>Work independently</li> <li>Show initiative</li> <li>Work on a team</li> </ul>	<ul style="list-style-type: none"> <li>Meeting with groups</li> <li>Making budgets</li> <li>Organizing a project</li> <li>Planning an event</li> <li>Working with technology</li> <li>Selling products and services</li> <li>Processing numbers and figures</li> <li>Preparing financial reports</li> <li>Following directions</li> <li>Learning new software programs</li> </ul>

If you answered “yes” to most of these questions, you might consider a future in one of the sample occupations listed below which are categorized by level of post-secondary training.

### PATHWAY FOCUS AREAS

- ◇ Business Management (BM)      ◇ Finance (F)  
 ◇ Information Technology (IT)   ◇ Marketing and Sales (MS)

### SAMPLE CAREERS

Entry (OJT)	Technical/Skilled (1-3 yrs)	Professional (4 or + years)
Customer Service Representative (MS)	Computer Salesperson (MS)	Marketing Manager (MS)
Reservation/Travel Agent (MS)	Retail Buyer (MS)	Certified Public Accountant (F)
*Telemarketer (MS)	Bank Collection Officer (F)	Economist (F)
Bookkeeper (F)	Tax Preparer (F)	*Financial Manager (F)
Cashier (F)	*Claims Adjuster (F)	*Securities Sales Representative (F)
Payroll Clerk (F)	Software Engineer (IT)	E-Commerce Analyst (IT)
Title Searcher (F)	Computer Programmer (IT)	*Systems Software Engineer (IT)
Computer Operator (IT)	Production Support Analyst (IT)	*Systems Analyst (IT)
Accounts Payable Office Mgr (BM)	Desktop Publisher (IT & MS)	Hospital Administrator (BM)
Administrative Assistant (BM)	Medical Secretary (BM)	Human Resources Manager (BM)
Bank Teller (F)	Real Estate Agent (BM & MS)	Chief Executive Officer (BM)
File Clerk (BM)	Restaurant Manager (BM & MS)	Manufacturing Sales Representative (BM & MS)
Retail Sales Clerk (BM)	*Sales Representative (BM & MS)	*Management Analyst (BM)
School Secretary (BM)	*Computer Support Specialist (IT)	
*Advertising Sales Agent (MS)		

*\*High Priority Occupations – Job categories that are in demand by employers, have higher skill needs and are most likely to provide family-sustaining wages.*

## BUSINESS AND INFORMATION TECHNOLOGY COURSE OF STUDY

This four-year plan of study should serve as a guide as you develop your academic core requirements and electives. All plans should meet graduation requirements.

9 <sup>th</sup>		10 <sup>th</sup>		11 <sup>th</sup>		12 <sup>th</sup>	
*English Language Arts	ELA, Academic, or Honors 9	*English Language Arts	ELA, Academic, or Honors 10	*English Language Arts	ELA, Academic, or Honors 11 **AP Lang & Compo	*English Language Arts	ELA, Academic, or Honors 12 or AP Lit & Comp **AP Lang & Comp
*Math	Algebra I A Algebra I (Ac) Geometry (Ac/H)	*Math	Algebra I B Geometry (Ac) Algebra II (Ac/H)	*Math	Geometry Algebra II (Ac) Statistics Functions (Ac/H)	*Math	Algebra II Statistics Functions (Ac/H) Essentials of Calculus (Ac) **AP CalcAB,BC **AP Statistics
*Science	Biology	*Science	**AP Biology Chemistry or General Physical Science Zoology	*Science	**AP Chemistry Physics or Earth Science Pre-Engineering Human Anatomy	*Science	**AP Physics
*Social Studies	**AP Human Geography	*Social Studies	Civics	*Social Studies	Modern US History or **AP US History	*Social Studies	World History or **AP European History Or **AP World History
*Health	PE/PE					*Health	PE/PE
<sup>R</sup> World Language	Spanish I, II French I, II German I, II	<sup>R</sup> World Language	Spanish I, II, III French I, II, III German I, II, III	<sup>R</sup> World Language	Spanish III, IV/AP French III, IV/AP German III, IV/AP	<sup>R</sup> World Language	Spanish IV/AP French IV/AP German IV/AP
Courses above are graduation requirements (*) and/or recommended ( <sup>R</sup> ) for this Pathway ** Elective course for this pathway							

## ENGINEERING AND INDUSTRIAL TECHNOLOGY (EIT) PATHWAY

This Pathway is designed to cultivate students’ interests, awareness and application to careers related to technologies necessary to design, develop, install and maintain physical systems.

Are you interested in...	Can you...	Do you enjoy...
Building and Construction Tools, Equipment and Materials Woodworking Math and Science Classes Fitness and Sports Precision Work Design and Architecture Engineering Computer Technology Production Management Curious how things work	Apply science and math to the real world Read and understand directions Solve problems of a complex nature Understand directives and read maps Organize reports and people See a task through to completion Use a computer	Travel Working with your hands Designing/working with projects, models and prototypes Working in a lab setting Working on a team Building with your hands Operating tools and equipment Pay close attention to detail

If you answered “yes” to most of these questions, you might consider a future in one of the sample occupations listed below which are categorized by level of post-secondary training.

### PATHWAY FOCUS AREAS

- ◇ Construction and Architecture (C)    ◇ Manufacturing (M)  
 ◇ Engineering and Engineering Technology (ET)    ◇ Transportation, Distribution and Logistics (TDL)

### SAMPLE CAREERS

Entry (OJT)	Technical/Skilled (1-3 yrs)	Professional (4 or + years)
Carpet Installer (C) Drywall Worker (C) *Roofer (C) Machine Operator (M) Baggage Handler (TDL) Dockworker (TDL) Freight Handler (TDL) Laborer (C, M, TDL) Warehouse Worker (C, M, TDL) *Industrial Machine Mechanic (M)	Grader & Dozer Operator (C) Electric Technician (M) Metal Engineering Technician (M) Auto Mechanic (TDL) Air Traffic Controller (TDL) Auto Body Repair (TDL) Bus Driver (TDL) Diesel Mechanic (TDL) Dispatch (TDL) Motorcycle Mechanic (TDL) Taxi Driver (TDL) *Truck Driver (TDL) Truck Terminal Manager (TDL) Civil Engineering Technician (ET) Robotics Technician (ET) *CAD/CAM Technician (M & ET) Laser Technician (M & ET) Production & Operating Workers Supervisor (M) Welder (M)	Navigator (TDL) Aeronautical Engineer (ET & TDL) Aerospace Engineer (ET & TDL) *Airline Pilot (ET & TDL) Architect (ET & C) Civil Engineer (ET & C) Chemical Engineer (ET) Computer Network Engineering (ET) Industrial Engineer (ET & M) Mechanical Engineer (ET & M) Astronaut (ET) *Nuclear Engineer (ET) Petroleum Engineer (ET) NASA Scientist (ET) Transportation Engineer (ET & TDL) Industrial Production Manager (M) Purchasing Agent (M) Technical Writer (E) *Construction Manager (C) *Cost Estimator (C)
Apprenticeships		
Brick Mason (C) Carpenter (C) Electrician (C) *HVAC (C) Plumber (C) Machinist (M) Diesel Mechanic (TDL) Surveyor (TDL & ET)		

*\*High Priority Occupations – Job categories that are in demand by employers, have higher skill needs and are most likely to provide family-sustaining wages.*

## ENGINEERING AND INDUSTRIAL TECHNOLOGY COURSE OF STUDY

This four-year plan of study should serve as a guide as you develop your academic core requirements and electives. All plans should meet graduation requirements.

9 <sup>th</sup>		10 <sup>th</sup>		11 <sup>th</sup>		12 <sup>th</sup>	
*English Language Arts	ELA, Academic, or Honors 9	*English Language Arts	ELA, Academic, or Honors 10	*English Language Arts	ELA, Academic, or Honors 11 **AP Lang & Comp	*English Language Arts	ELA, Academic, or Honors 12  AP Lit & Comp **AP Lang & Comp
*Math	Algebra I A Algebra I (Ac) Geometry (Ac/H)	*Math	Algebra I B Geometry (Ac) Algebra II (Ac/H)	*Math	Geometry Algebra II (Ac)  Statistics Functions (Ac/H)	*Math	Algebra II Statistics Functions (Ac/H) Essentials of Calculus (H) **AP CalcAB, BC **AP Statistics
*Science	Biology	*Science	**AP Biology Chemistry or General Physical Science Zoology	*Science	**AP Chemistry Physics or Earth Science Pre-Engineering Human Anatomy	*Science	**AP Physics
*Social Studies	**AP Human Geography	*Social Studies	Civics	*Social Studies	Modern US History or **AP US History	*Social Studies	World History or **AP European History Or AP World History
*Health	PE/PE	**Introduction to CAD **Design and Problem Solving		**Introduction to CAD **Manufacturing Technology		*Health	PE/PE
<sup>R</sup> World Language	Spanish I, II French I, II German I, II	<sup>R</sup> World Language	Spanish I, II, III French I, II, III German I, II, III	<sup>R</sup> World Language	Spanish III, IV/AP French III, IV/AP German III, IV/AP	<sup>R</sup> World Language	Spanish IV/AP French IV/AP German IV/AP
Courses above are graduation requirements (*) and/or recommended ( <sup>R</sup> ) for this Pathway ** Elective course for this pathway							

## HEALTH AND HUMAN SERVICES (HSHS) PATHWAY

This Pathway is designed to cultivate students' interests, skills and experiences for employment in careers related to family and human needs.

Are you interested in...	Can you...	Do you enjoy...
Working with People Owning Your Own Business Aging Adults Child Development Family & Social Services Food Preparation Teaching Counseling	Organize Well Plan and Direct Programs Be Creative Communicate Well Assume Leadership Work with a Team Use Inter-personal Skills Be Conscientious and Dependable Plan Budgets	Communication Services Helping and Protecting Others Working with People Counseling and Advising People Serving Others' Needs Interviewing People Selling Products and Services Handling Customer Complaints Searching for Answers to Human Problems

If you answered "yes" to most of these questions, you might consider a future in one of the sample occupations listed below which are categorized by level of post-secondary training.

### PATHWAY FOCUS AREAS

- ◇ Counseling, Personal Care (CPC)    ◇ Education (E)  
 ◇ Law, Public Safety and Government (LPG)    ◇ Hospitality and Tourism (HT)

### SAMPLE CAREERS

Entry (OJT)	Technical/Skilled (1-3 yrs)	Professional (4 or + years)
*Child Care Worker (CPC) Cosmetics Representative (CPC) Dry Cleaning Operator (CPC) Home Health Aide (CPC) Library Assistant (E) Armed Services Career (LPG) Bailiff (LPG) Postal Services Worker (LPG) Security Guard (LPG) Utility Worker (LPG) Aerobics Instructor (HT) Travel Agent (HT) Waitress (HT) *Teacher's Assistant (C) *Home Care Aide (CPC)	Barber (CPC) Cosmetologist (CPC) Fashion Designer (CPC) Manicurist (CPC) Massage Therapist (CPC) Mortician (CPC) Truck Driver (CPC) Teacher's Aide (E) Armed Services Career (LPG) Crime Lab Technician (LPG) Fire Fighter (LPG) Bartender (HT) Chauffer (HT) Flight Attendant (HT) Meat Cutter (HT) Personal Trainer (CPC) Postmaster (LPG) Chef (HT) Baker (HT)	Funeral Director (CPC) Marriage & Family Therapist (CPC) *College Professor (E) *Principal (E) *Teacher (E) City Manager (LPG) Criminologist (LPG) FBI Agent (LPG) Lawyer (LPG) Parole Officer (LPG) *Mental Health Counselor (CPC) Park Ranger (LPG) Workforce Director (LPG) Athletic Agent (HT) Executive Chef (HT) Family Planner (HT) Food Services Manager (HT) Hotel/Motel Management (HT) Historical Sites or Museum Guide (E) Historical Journalist (E) Librarian or Archivist (E) Information Manager (E)

*\*High Priority Occupations – Job categories that are in demand by employers, have higher skill needs and are most likely to provide family-sustaining wages.*

## SCIENCE AND HEALTH (SH) PATHWAY

This Pathway is designed to cultivate students’ interests in life, physical and behavioral sciences. In addition, it involves the planning, managing and providing of therapeutic services, diagnostic services, health information, biochemistry and research and development.

Are you interested in...	Can you...	Do you enjoy...
Health Care Environment Science and Medicine Medical Research Food Production Environment & Conservation Pharmacy Physical Therapy Sports/Fitness Information Systems Conservation Radiology	Pay attention to detail Use a computer and technology Work in a lab setting or medical facility Apply a scientific theory to real-life problems Work outdoors around animals and plants Collect and analyze data from experiments Work with people in need Work with science and math theories	Diagnosing and caring for sick animals Working outdoors with wildlife Solving problems Working on cutting-edge scientific research Working with a team Medical lab research Making a contribution to society Working with numbers Developing conclusions from a database

If you answered “yes” to most of these questions, you might consider a future in one of the sample occupations listed below which are categorized by level of post-secondary training.

### PATHWAY FOCUS AREAS

- ◇ Health Science (HS)    ◇ Agriculture, Food & Natural Resources (AFN)  
 ◇ Science, Technology and Math (STM)

### SAMPLE CAREERS

Entry (OJT)	Technical/Skilled (1-3 yrs)	Professional (4 or + years)
Hospital Worker (HS) Patient Care Technician (HS) Dialysis Technician (HS) EEG Technician (HS) *Home Health Aide (HS) Physical Therapy Aide (HS) Animal Caretaker (AFN) Breeder (AFN) Extension Service Worker (AFN) Food Conservation Worker (AFN) Wildlife Reserve Worker (AFN) Hazardous Waste Technician (STM) Optician (STM) Data Entry (STM) Surgical & Mapping Technicians (STM) *Nurse’s Aide, Orderlies (HS) *Pharmacy Technicians (HS)	Certified Nursing Assistant (HS) *Dental Hygienist (HS) Licensed Practical Nurse (HS) *Medical Lab Technician (HS) *Radiological Technician (HS) Respiratory Therapist (HS) Dental Lab Technician (HS & STM) Fish & Game Worker (AFN) Forest Conversationalist (AFN) GPS Technician (AFN) Surveyor (AFN) *Veterinary Technician (AFN) Nanotechnician (STM) Sound Engineer (STM) Personal Trainer (HS) *Emergency Medical Technician (HS) *Biological Technician (STM) Chemical Technician	Athletic Trainer (HS) Speech/Language Pathologist (HS) Dietician (HS) *Physician Assistant (HS) Medical Examiner (HS) *Pharmacist (HS) Physician (HS) Physical Therapist (HS) Registered Nurse (HS) Agronomist (AFN) *Environmental Scientist (STM) Geologist (AFN) Marine Biologist (AFN) Soil Conservationalist (AFN) *Veterinarian (AFN) Chemist (STM) Geneticist (STM) Statistician (STM) Zoologist (STM) *Nuclear Engineer (STM)

*\*High Priority Occupations – Job categories that are in demand by employers, have higher skill needs and are most likely to provide family-sustaining wages.*

## HEALTH & HUMAN SERVICES/SCIENCE COURSE OF STUDY

This four-year plan of study should serve as a guide as you develop your academic core requirements and electives. All plans should meet graduation requirements.

9 <sup>th</sup>		10 <sup>th</sup>		11 <sup>th</sup>		12 <sup>th</sup>	
*English Language Arts	ELA, Academic, or Honors 9	*English Language Arts	ELA, Academic or Honors 10	*English Language Arts	ELA, Academic or Honors 11 **AP Lang & Comp	*English	ELA, Academic or Honors 12  AP Lit & Comp **AP Lang & Comp
*Math	Algebra I A Algebra I (Ac) Geometry (Ac/H)	*Math	See Transition Chart for Core Algebra I B Geometry (Ac) Algebra II (Ac/H)	*Math	See Transition Chart for Core Geometry Algebra II (Ac) Statistics Functions (Ac/H)	*Math	Algebra II Statistics Functions (Ac/H) Essentials of Calculus (H) **AP CalcAB, BC **AP Statistics
*Science	Biology	*Science	AP Biology Chemistry or General Physical Science Zoology	*Science	AP Chemistry Physics or Earth Science Pre-Engineering Human Anatomy	*Science	AP Physics AP Biology AP Chemistry
*Social Studies	AP Human Geography	*Social Studies	Civics	*Social Studies	Modern US History <b>or</b> AP US History	*Social Studies	World History <b>or</b> AP European History AP Human Geography AP US History Or AP World History
*Health	PE/PE					*Health	PE/PE
<sup>R</sup> World Language	Spanish I, II French I, II German I, II	<sup>R</sup> World Language	Spanish I, II, III French I, II, III German I, II, III	<sup>R</sup> World Language	Spanish III, IV/AP French III, IV/AP German III, IV/AP	<sup>R</sup> World Language	Spanish IV/AP French IV/AP German IV/AP

Courses above are graduation requirements (\*) and/or recommended (<sup>R</sup>) for this Pathway





**2016 - 2017**

**PROGRAM**

**DESCRIPTIONS**



## The Monroe and Career Technical Institute serves the East Stroudsburg, Pleasant Valley, Pocono Mountain, and Stroudsburg School Districts

### See your Guidance Counselor To inquire about enrolling at MCTI

The mission of the Monroe County Career & Technical Institute (MCTI) is “to provide high quality career and technical training and education for the students of our community.” We provide this training and education through a set of courses that we believe prepares students both academically and technically for a career or to pursue postsecondary education.

MCTI offers students 20 Program of Study (POS) and 3 Tech Prep Programs. These Programs are career and technical Pennsylvania Department of Education (PDE) approved programs that articulate the secondary career and technical education to a postsecondary degree, diploma, or certificate programs. These 23 Programs align the secondary courses to a postsecondary program to complete a degree or certificate.

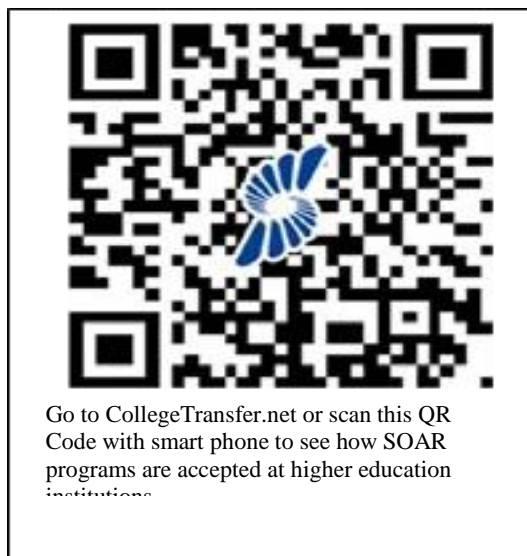
### PROGRAMS OF STUDY

“Program of Study” is a Pennsylvania Department of Education approved statewide program that:

- Incorporate and align secondary and postsecondary education
- Include academic and CTE content in a coordinated, non-duplicative progression of courses
- Includes the opportunity for secondary students to acquire postsecondary credits
- Lead to an industry-recognized credential or certificate at the postsecondary level, or an associate of baccalaureate degree
- Identify and address current or emerging occupational opportunities
- Build on career clusters, career pathways, and career academies
- State develops in consultation with local Occupational Advisory Committees (OAC) and standards

How SOAR high school programs are accepted at postsecondary schools:

CollegeTransfer.net – Transfer Center  
Aspire | Assess | Articulate



## **TECH PREP**

**Tech Prep programs combine at least two years of high school education with two years of postsecondary education to prepare students for technical careers in areas such as engineering technology, health and human services, and business/information technology. These articulated programs combine a common core of higher academics in math, science, and communications with a specific field of technical preparation. Tech Prep is a college prep program that leads to an associate degree, two-year certificate, or apprenticeship. Tech Prep students will be technically and academically prepared to join the workforce or continue their education towards a baccalaureate degree.**

## **Career & Technical Student Organizations**

Monroe Career & Technical Institute offers several co-curricular activities through our Career & Technical Student Organizations. Some organizations are supplemental to the career and technical programs.

### **American Welding Society – AWS**

The American Welding Society (AWS) was formed in 1919 to advance the science, technology and application of welding. Participation in a student chapter can provide valuable experience for career and personal development for members. AWS is recognized as the leading technical organization in the United States devoted to the advancement and interest of welding, joining and cutting processes. The organization includes welders, inspectors, and technicians of all levels as well as thousands of students who will become the workforce of the future.

### **DECA – An Association of Marketing Students**

DECA enhances marketing, management and entrepreneurship education. Students develop skills and competencies for careers, build self-esteem, experience leadership and practice community service. DECA promotes the partnership of education and business. DECA promotes leadership opportunities, competitive events and achievement/recognition activities on the local, state and national levels. Students enrolled in the Hotel, Resort & Tourism and Marketing Programs are eligible to join DECA.

### **National FFA Organization (Agricultural Education)**

FFA is a co-curricular student organization which is an integral part of agriculture education. FFA enhances the education of students preparing or advancing their careers in production agriculture, products processing, agribusiness, renewable natural resources, agricultural mechanics, horticulture and environmental occupations. FFA promotes leadership opportunities, competitive events and achievement/recognition activities on local, state and national levels. Students in both the Floriculture and Horticulture Programs participate in FFA.

### **Health Occupations Students of America – HOSA**

HOSA is a national student organization that provides a unique program of leadership development, motivation and recognition exclusively for secondary, post-secondary, collegiate and adult students enrolled in health occupations education course or instructional programs. HOSA is an integral part of approved health occupation programs. HOSA promotes leadership opportunities, competitive events and achievement/recognition activities on local, state and national levels. Health Occupation students join HOSA.

### **NAHB – National Association of Home Builders**

NAHB is an association whose mission is to enhance the climate for housing and the building industry. The student chapter of NAHB works to provide activities for students to develop professionalism in the construction trades and to introduce students to the construction business. NAHB strives to create an environment in which: All American have access to the housing of their choice and the opportunity to realize the American dream of homeownership. Builders have the freedom to operate as entrepreneurs in an open and competitive environment. Housing and those who provide it are recognized as the strength of the nation. The Pocono Builders Association is the sponsor of MCTI NAHB student organization.

### **National Technical Honor Society – NTHS**

NTHS is a non-profit, honor organization for students enrolled in occupational, career and technical programs. The purpose of NTHS is to promote service, leadership, honesty, career development, and skilled workmanship, and to reward student achievement. The NTHS is the benchmark for excellence in workforce education, encouraging students to give their BEST. It also helps students build workplace values that are demanded in today's quality-driven business and industry. Website: [www.nths.org](http://www.nths.org)

### **SkillsUSA**

SkillsUSA is a co-curricula student organization which is an integral part of trade, industrial, and technical education. SkillsUSA enhances the education of students by preparing or advancing their careers in the service, manufacturing, technical, trade and industrial occupations. SkillsUSA promotes leadership opportunities, competitive events and achievement/recognition activities at the local, district, state and national levels. All career and technical students can participate in SkillsUSA. Website: [www.Skillsusa.org](http://www.Skillsusa.org)

### **Student Government/Interact**

Student Government provides opportunities for active participation in the organization and management of school affairs; to further interest in all school activities; to teach and develop leadership qualities through domestic practices and to cooperate in promoting career and technical education in general, as well as the general welfare of the school.

**Interact:** A Rotary-sponsored service club for young people in their secondary-school ages, gives an opportunity for students to participate in fun and meaningful service projects. Interact clubs perform at least two projects a year, with one serving the community and the other furthering international understanding. Along the way, Interactors (Interact Club Members) develop their leadership skills and initiative while meeting new friends.

Through the service activities, Interactors learn the importance of:

- Developing leadership skills and personal integrity.
- Demonstrating helpfulness and respect for others.
- Understanding the value of individual responsibility and hard work.
- Advancing international understanding and goodwill.

Membership in the Student Government/Interact requirements:

- Each program session selects one representative and an alternate.
- Each representative and alternate is a bona fide member of a CTSO.
- Each representative (or alternate) attends meetings as called by the advisor.

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11.0901	COMPUTER NETWORKING & SECURITY .....
12.0401	COSMETOLOGY .....
43.0107	CRIMINAL JUSTICE .....
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# AUTO COLLISION AND REPAIR

## 47.0603 AUTOBODY/COLLISION AND REPAIR TECHNOLOGY/TECHNICIAN (PDE APPROVED PROGRAM OF STUDY)

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

<b>Specialized Equipment:</b>	<b>Related Occupations /Employment Opportunities:</b>	<b>Personal Qualifications:</b>
Chief Easy Liner Collision Repair System Gas and MIG Welders Paint Mixing System Spray Booth Virtual Spray Painter	Automobile Body and Related Repairers Helpers-Installation, Maintenance and Repair Workers Automotive Specialty Technicians Painters, Transportation Equipment	Mechanical Aptitude Ability to Work Independently and in a Team Communication Skills Trouble Shooting Skills

### CAREERS:

HPO	49-3021.00	Automotive Body and Related Repairers
	49-3022.00	Automotive Glass Installers and Repairers
	51-9122.00	Painters, Transportation Equipment

### Certifications available to qualified students:

<b>Industry Certification</b>	<b>Provider Name</b>
S/P2	S/P2

# AUTOMOTIVE TECHNOLOGY

## 47.0604 AUTOMOBILE/AUTOMOTIVE MECHANICS TECHNOLOGY/TECHNICIAN (PDE APPROVED PROGRAM OF STUDY)

Students enrolled in the Automotive Technology Program are prepared to apply technical knowledge and skills to engage in the servicing and maintenance of all types of automobiles and light trucks. This Program includes instruction in the diagnosis and testing, including computer analysis, of malfunctions in and repair of engines, fuel, electrical, cooling and brake systems and drive train and suspension systems. Instruction is also given in the adjustment and repair of individual components and systems such as cooling systems, drive trains, fuel system components and air conditioning and includes the use of technical repair information and the state inspection procedures. The Program consists of a list of PDE required tasks and additional local or value added tasks.

This Program is certified by the National Automotive Technicians Education Foundation (NATEF) and is designed for students who would like to work in the automotive service industry. Automotive technicians need knowledge of electronics, emission control, electricity, mechanics, and hydraulics.

The need for skilled technicians is rapidly increasing. Expanded use of electronics, new government requirements on safety and pollution control, and more extensive warranties on new vehicles require the work of highly skilled technicians and diagnosticians.

<b>Specialized Equipment:</b>	<b>Related Occupations /Employment Opportunities:</b>	<b>Personal Qualifications:</b>
Computer-based Service Information Database Engine Analyzers Lab Scopes Scan Tools Road Force Balancer Machine/Computer Precision Measuring Instrument Pressure Gauges Digital Image – Alignment Machine On Vehicle Brake Lathe Hunter Tire Changer Machine	Automotive Service Technician and Mechanic Automotive Specialty Technician Administrative Service Manager	Trouble Shooting Skills Mechanical Aptitude Ability to Work Independently and in a Team Analytical Skills

### CAREERS:

	49-2096.00	Electronic Equipment Installers and Repairers, Motor Vehicles
HPO	49-3023.00	Automotive Service Technicians & Mechanics

### Certifications available to qualified students:

<b>Industry Certification</b>	<b>Provider Name</b>
Certified Safety Inspector, Cat I S/P2	Pennsylvania Department of Transportation S/P2
Section 609 Certification for Refrigerant Recycling and Recovery	Mobile Air Conditioning Society Worldwide
ASE	Automotive Service Excellence



Battery Starting and Charging System	AC Delco
Electrical State 1 & 2	AC Delco
AYES Certificate	Automotive Youth Educational Systems
Motor Oil Certification	Valvoline

# CARPENTRY

## 46.0201 CARPENTRY/CARPENTER (PDE APPROVED PROGRAM OF STUDY)

The Carpentry Program is an instructional program that prepares individuals to apply technical knowledge and skills to lay out, fabricate, erect, install and repair structures and fixtures using hand and power tools. This Program includes instruction in common systems of framing, construction materials, estimating, blueprint reading and finish carpentry techniques. The Program is designed to provide students with a combination of classroom theory and hands-on building experience in residential, commercial, and industrial construction trades. The Program consists of a list of PDE required tasks and additional local or value added tasks.

Specialized Equipment	Related Occupations Employment Opportunities	Personal Qualifications
Band and Table Saws Bench Shapers Drum and Disk Sanders Jig and Trim Saws Molder/Planer Planers and Jointers Nailers Radial Arm Saws Routers with Attachments Specialized Power Hand Tools Woodworking Lathes	Rough Carpenter Carpenter Helper Roofer Drywaller	Patience Endurance Ability to Work Independently and in a Team Mechanical Aptitude Communication Skills

### CAREERS:

HPO	47-2031.00	Carpenters
	47-3012.00	Helpers--Carpenters

### Certifications available to qualified students:

Industry Certification	Provider Name
CareerSafe/OSHA	Texas Engineering Extension Service
Pennsylvania Builders Association Skills Certificate	Pennsylvania Builders Association
Articulated Ladder	American Ladder Institute
Mobile Ladder	American Ladder Institute
Single and Extension Ladder	American Ladder Institute
Step Ladder	American Ladder Institute

# **COMPUTER NETWORKING and SECURITY**

## **11.0901 COMPUTER SYSTEMS NETWORKING AND TELECOMMUNICATIONS (PDE APPROVED PROGRAM OF STUDY)**

The Computer Networking and Security Program is an instructional program that focuses on the design, implementation and management of linked systems of computers, peripherals and associated software and prepares individuals with the technical skills required to support networks and network users. This Program includes instruction in network technologies and standards: system design, architecture, operating systems, security, communications protocols, client support, messaging services, network management, troubleshooting and server optimization. Those completing the Program may be employed as a network administrator, network specialist, network technician, webmaster, client services analyst (end user) or network operator. The Program consists of a list of PDE required tasks and additional local or value added tasks.

The core content of this course is focused on nationally recognized certifications. Upon completion of the Program, students may be eligible to obtain up to 30 advanced standing credits at a post-secondary institution based on their career track.

<b>Specialized Equipment:</b>	<b>Related Occupations/Employment Opportunities:</b>	<b>Personal Qualifications:</b>
Personal Computers Scanners Digital Cameras Data Projectors Servers Routers Firewalls Printers Network Sniffers	Network & Computer Systems Administrator Computer Security Specialist Computer Support Specialist Computer Security	Problem Solving Trouble Shooting Skills Manual Dexterity Analytical Skills Communication Skills Mechanical Aptitude

### CAREERS:

	15-1081.00	Network Systems and Data Communications Analyst
	15-1122.00	Information Security Analysts
	15-1134.00	Web Developers
HPO	15-1142.00	Network and Computer Systems Administrators
HPO	15-1152.00	Computer Network Support Specialists

Certifications available to qualified students:

<b>Industry Certification</b>	<b>Provider Name</b>
A+	Computing Technology Industry Association
Network+	Computing Technology Industry Association

Security+	Computing Technology Industry Association
Cisco Certified Network Associate (CCNA)	Cisco Systems
Network Cabling Specialist – Copper	C-TECH
A+ PC Pro	LabSim, Test Out
Network+ Pro	LabSim, Test Out
Security + Pro	Lab Sim, Test Out

# COSMETOLOGY

## 12.0401 COSMETOLOGY /COSMETOLOGIST, GENERAL (PDE APPROVED TECH PREP PROGRAM)

The Cosmetology Program is an instructional program that prepares individuals to apply technical knowledge and skills related to the cosmetology industry in a variety of beauty treatments including the care of the hair, skin, and nails. Instruction includes training in giving shampoos, rinses and scalp treatments; hair styling, setting, cutting, coloring, tinting and lightening; permanent waving; facials; manicuring; and hand and arm massaging. The Program includes instruction in bacteriology, anatomy, hygiene, sanitation, salon management including record keeping and customer relations. Instruction is designed to qualify students for the licensing examination upon successfully completing 1,250 hours of instruction. The Program consists of a list of PDE required tasks and additional local or value added tasks.

<b>Specialized Equipment:</b>	<b>Related Occupations /Employment Opportunities:</b>	<b>Personal Qualifications:</b>
<p>For participation in the program, students are required to purchase a kit with the items mandated by the State Board of Cosmetology and MCTI.</p> <p>Students are also required to purchase a uniform selected by MCTI.</p>	<p>Manicurist Hairdresser Hairstylist Manager Skin Care Specialist</p>	<p>Ability to Work Independently and in a Team Problem Solving Analytical Skills Creativity Patience Endurance</p>

### CAREERS:

25-2032.00	Career/Technical Education Teachers, Secondary School
39-5012.00	Hairdressers, Hairstylists and Cosmetologists

Certification available to qualified students:

<b>Industry Certification</b>	<b>Provider Name</b>
Cosmetologist	Pennsylvania Department of State, State Board of Cosmetology

# CRIMINAL JUSTICE

## 43.0107 CRIMINAL JUSTICE/POLICE SCIENCE (PDE APPROVED PROGRAM OF STUDY)

The Criminal Justice Program is an instructional program that prepares individuals to apply technical knowledge and skills that relate to performing entry-level duties as a patrolman, corrections officer, juvenile officer, security officer and probation officer. The course stresses patrol and related duties such as traffic and crowd control, the American legal system, techniques used in the police laboratory and training in emergency and disaster situations. Also stressed is physical development with a strong emphasis on self-defense and the building of self-confidence. Investigatory techniques such as interviewing and evidence gathering, report writing, a study of juvenile law and procedure, the techniques of crime prevention, the criminal process from arrest through conviction and procedural matters affecting law enforcement such as arrest, search and seizure and legal principles developed in information lessons are utilized in supervised simulated situations. The Program consists of a list of PDE required tasks and additional local or value added tasks.

<b>Specialized Equipment:</b>	<b>Related Occupations /Employment Opportunities:</b>	<b>Personal Qualifications:</b>
Personal Protective Equipment CPR Mannequin Handcuffs Chemical Aerosols Law Enforcement Gear Belts	Police Patrol Officer Security Officer Correctional Officer Police, Fire and Ambulance Dispatchers Forensic Evidence Technician	Physical Stamina and Strength Weight Lifting Walking Good Hand and Eye Coordination Problem Solving Skills Ability to Work Independently and in a Team Patience Endurance Good Communication Skills

### CAREERS:

	33-3011.00	Bailiffs
	33-3012.00	Correctional Officers & Jailers
	33-3021.00	Detectives and Criminal Investigators
	33-3051.00	Police & Sheriff's Patrol Officers
	33-9021.00	Private Detectives and Investigators

Certifications available to qualified students:

<b>Industry Certification</b>	<b>Provider Name</b>
Certificate of Training - Recognition and Identification of Hazardous Materials (HAZMAT)	Pennsylvania State Fire Academy
First Aid	American Red Cross

Adult CPR	American Red Cross
AED Essentials	American Red Cross
Certified Protection Officer, CPO	International Foundation for Protection Officers

## CULINARY ARTS

### 12.0508 INSTITUTIONAL FOOD WORKERS (PDE APPROVED PROGRAM OF STUDY)

The Culinary Arts Program is an instructional program that prepares students for employment related to institutional, commercial or self-owned food establishments or other food industry occupations. Instruction and specialized learning experiences include theory, laboratory and work experience related to planning, selecting, preparing and serving of quantity food and food products; nutritive values; use and care of commercial equipment; safety; and sanitation precautions. Instruction of skills is provided to individuals desiring to become employed in all areas of the food service industry at entry level. The Program is certified by the American Culinary Federation. The Program consists of a list of PDE required tasks and additional local or value added tasks.

<b>Specialized Equipment:</b>	<b>Related Occupations /Employment Opportunities:</b>	<b>Personal Qualifications:</b>
Fully Gas-operated Kitchen Brazier and Pressure Steamer Ovens – Conventional and Convection Slicer Broiler Deep-fryer	Waiter/Waitress Food Prep Worker Food Service Manager Cook/Short Order Cook Baker Chef/Head Cook	Ability to Work Independently and in a Team Adapt to Situations Work within Time Constraints Endurance

#### CAREERS:

HPO	35-1012.00	First-Line Supervisors of Food Preparation and Serving Workers
	35-2014.00	Cooks, Restaurant
	35-2015.00	Cooks, Short Order
	35-2021.00	Food Preparation Workers

#### Certifications available to qualified students:

<b>Industry Certification</b>	<b>Provider Name</b>
Certified Junior Culinarian (CJC)	American Culinary Federation
Pennsylvania Food Employee Certification (ServSafe, etc.)	Pennsylvania Department of Agriculture
ProStart National Certificate of Achievement	Pennsylvania Restaurant & Lodging Association (PRLA)

# DIESEL TECHNOLOGY

## 47.0613 MEDIUM/HEAVY VEHICLE AND TRUCK TECHNOLOGY/TECHNICIAN (PDE APPROVED PROGRAM OF STUDY)

The Diesel Technology Program is designed to prepare individuals to apply technical knowledge and skills to the specialized maintenance and repair of trucks, buses, and other commercial and industrial vehicles. This Program includes instruction in diesel engine mechanics, suspension and steering, brake systems, electrical and electronic systems, preventive maintenance inspections, drive trains, HVAC systems, and auxiliary equipment installation and repair.

The Diesel Technology Program includes safety, theory, and general practice. Diesel technicians must like to work with machines and be able to use both hand and power tools. This Program is certified by the National Automotive Technicians Education Foundation (NATEF). The Program consists of a list of PDE required tasks and additional local or value added tasks.

<b>Specialized Equipment:</b>	<b>Related Occupations /Employment Opportunities:</b>	<b>Personal Qualifications:</b>
Diesel Over-the-road Trucks Diesel Engines Transmissions Braking Systems Drive axles	Bus and Truck Mechanic Diesel Engine Specialist Industrial Machinery Mechanic Automotive Master Mechanic Helpers-Installation Farm Equipment Mechanic	Mechanical and Electronic Abilities Physical Stamina Commercial Driver's License Problem Solving/Trouble Shooting Skills Ability to Work Independently and in a Team

### CAREERS:

HPO	49-3031.00	Bus & Truck Mechanics & Diesel Engine Specialists
	49.3041.00	Farm Equipment Mechanics & Service Technicians
	49.3042.00	Mobile Heavy Equipment Mechanics

### Certifications available to qualified students:

<b>Industry Certification</b>	<b>Provider Name</b>
AYES Certificate	Automotive Youth Educational Systems
Certified Safety Inspector, Cat I	Pennsylvania Department of Transportation
S/P2	S/P2
Section 609 Certification for	Mobile Air Conditioning Society



## DIVERSIFIED OCCUPATIONS

### 32.0105 JOB-SEEKING/CHANGING SKILLS (Diversified Occupations) (PDE APPROVED TECH PREP PROGRAM)

The Diversified Occupations Program (DO) is an instructional program that operates as an integral part of vocational education to provide a cooperative arrangement between the school and employers whereby the student receives general education instruction in the school and on-the-job training through part-time employment in business/industry. The area of training may be in any vocational education area where there are needs for trained persons and must relate to the student's career objective.

The DO Program is a partnership between MCTI, the sending district, the student and the student's parents, and the employer. This training program is designed to help the student to transition from school to the world of work while gaining valuable life and work experience. Students are responsible for finding part-time employment with a local employer which is directly related to the career field they wish to pursue after graduating from high school. This Program is conducted at the student's district high school campus.

<b>Specialized Equipment:</b>	<b>Related Occupations /Employment Opportunities:</b>	<b>Personal Qualifications:</b>
Equipment will be specific to the industry and work place	Vary by career pathway	Dependent upon the specific career and work place

CAREERS: Career opportunities will be determined upon receiving employment in a specific industry.

Certification available to qualified students:

<b>Industry Certification</b>	<b>Provider Name</b>
CareerSafe/OSHA	Texas Engineering Extension Service

# DRAFTING & DESIGN TECHNOLOGY

## 15.1301 DRAFTING AND DESIGN TECHNOLOGY/TECHNICIAN, GENERAL (PDE APPROVED PROGRAM OF STUDY)

Drafting & Design Technology is an instructional program that generally prepares individuals to apply technical knowledge and skills as each relates to gathering and translating of data or specifications including basic aspects of planning, preparing and interpreting mechanical, architectural, structural, civil, electrical/electronic, topographical and other drawings and sketches used in various engineering fields. Instruction is designed to provide experiences in drawing and CAD; the use of reproduction materials, equipment and processes; the preparation of reports and data sheets for writing specifications; the development of plan and process charts indicating dimensions, tolerances, fasteners, joint requirements and other engineering data; the development of models; and drafting multiple view assembly and sub-assembly drawings as required for manufacture, construction and repair of mechanisms. The Program consists of a list of PDE required tasks and additional local or value added tasks.

Students who successfully complete the Program will have the opportunity to work as entry level CAD-Technicians with mechanical, architectural, and civil drafting professionals. Students may also work in many related careers such as surveying, construction estimating, and specification writing.

<b>Specialized Equipment:</b>	<b>Related Occupations /Employment Opportunities:</b>	<b>Personal Qualifications:</b>
Parallel Sliders Triangles and Scales Auto-Cad Architectural Desktop Mechanical Desktop	Mechanical Drafter Architectural Drafter Civil Drafter Interior Designer Engineering	Problem Solving Manual Dexterity Analytical Skills Communication Skills Mechanical Aptitude

CAREERS:

17-3011.00	Architectural and Civil Drafters
17-3013.00	Mechanical Drafters
17-3019.00	Drafters, All Others

Certification available to qualified students:

<b>Industry Certification</b>	<b>Provider Name</b>
Autodesk Certified User	Autodesk

# ELECTRICAL TECHNOLOGY

## 46.0399 ELECTRICAL AND POWER TRANSMISSION INSTALLERS, OTHER (PDE APPROVED PROGRAM OF STUDY)

The Electrical Technology Program is an instructional program that prepares individuals to apply technical knowledge and skills necessary to install, operate, maintain and repair electrically-energized residential, commercial and industrial systems, and DC and AC motors, controls and electrical distribution panels. Instruction emphasizes practical application of mathematics, science, circuit diagrams and use of electrical codes and includes blueprint reading, sketching and other subjects essential for employment in the electrical occupations. Reading and interpretation of commercial and residential construction wiring codes and specifications, installation and maintenance of wiring, service and distribution networks within large construction complexes are also critical components of the program. The Program consists of a list of PDE required tasks and additional local or value added tasks.

Students are also given the opportunity to pursue advanced training in motor control circuits and power technology applications. Students are also afforded the opportunity to study home automation by using the Smart Home Technology. Students receive practical experience by completing many projects.

<b>Specialized Equipment:</b>	<b>Related Occupations / Employment Opportunities:</b>	<b>Personal Qualifications:</b>
Basic and Advanced Electrical Trainers Conduit Bending Equipment Power Wire Pullers Smart House Technology Trainers Analog and Digital Testing Equipment Motor Control Trainers PLC Trainers	Electrician Helper Electrician, Apprentice First Line Supervisor and Manager Electric Motor and Switch Assembler and Repairer	Mechanical Aptitude Problem Solving Skills & Troubleshooting Skills Analytic Skills Ability to Work Independently and in a Team Ability to work in all Weather and heights Communication Skills Knowledge of Algebra

### CAREERS:

HPO	47-2111.00	Electricians
	47-3013.00	Helpers--Electricians
	49-2098.00	Security & Fire Alarm Systems Installers
HPO	49-9051.00	Electrical Power-Line Installers & Repairers

Certifications available to qualified students:

<b>Industry Certification</b>	<b>Provider Name</b>
CareerSafe/OSHA	Texas Engineering Extension Service

## ELECTRONICS TECHNOLOGY

### 15.0303 ELECTRICAL, ELECTRONIC AND COMMUNICATIONS ENGINEERING TECHNOLOGY/TECHNICIAN (PDE APPROVED PROGRAM OF STUDY)

Electronics Technology is an instructional program that prepares individuals to apply basic electronic principles and technical skills to the production, calibration, estimation, testing, assembling, installation and maintenance of electronic equipment. Emphasis is on passive components and solid-state devices; digital circuits; optoelectronic devices; operational amplifiers; audio and RF amplifiers; oscillators; power supplies; and AM, FM and PCM modulators. Knowledge is acquired through theoretical instruction, experimentation and hands-on activities. Instruction will develop basic levels of knowledge, understanding and associated skills essential for entry-level employment in communications, industrial electronics, digital processing, robotics, avionics, biomedical technology and other electronics occupations. Through collaborative curriculum planning with colleges and trade schools, students who participate in this Program are eligible to obtain up to 12 credits advanced standing in a post-secondary program. This Program participates in the Electronics Technicians Association, International Student Certification Program. The Program consists of a list of PDE required tasks and additional local or value added tasks.

<b>Specialized Equipment:</b>	<b>Related Occupations / Employment Opportunities:</b>	<b>Personal Qualifications:</b>
Oscilloscope Function Generator Power Supplies Logic Probes Multimeters	Production Repairer Electronic Assembler Electronic Technician Communication Technician Electronic Engineer	Communication Skills Analytical Skills Manual Dexterity Trouble Shooting Skills

#### CAREERS:

	17-3012.00	Electrical and Electronic Drafters
	17-3023.00	Electrical and Electronic Engineering Technicians
HPO	17-3024.00	Electro-Mechanical Technicians

#### Certifications available to qualified students:

<b>Industry Certification</b>	<b>Provider Name</b>
Student Electronics Technician (SET)	Electronics Technicians Association, Int.
EM1 – DC Basics	Electronics Technicians Association, Int.
EM2 – AC Basics	Electronics Technicians Association, Int.
EM 3 – Analog	Electronics Technicians Association, Int.

EM 4 – Digital Basics	Electronics Technicians Association, Int.
EM5 – Comprehensive	Electronics Technicians Association, Int.

# GRAPHIC COMMUNICATIONS

## 10.0399 GRAPHIC COMMUNICATIONS, OTHER (PDE APPROVED PROGRAM OF STUDY)

Graphic Communications is an instructional program that generally prepares individuals to apply technical knowledge and skills to plan, prepare and execute commercial and industrial visual image and print products using mechanical, electronic and digital graphic and printing equipment. Students learn desktop publishing, layout, composition, presswork and bindery as well as photography, and several graphic arts techniques. Emphasis is on typographical layout and design using computer graphics, photo typesetting, platemaking, offset preparation and operation, paper cutting, ink and color preparation and dynamics and airbrush and screen printing production.

Concentration in the area of graphic arts will permit the student to work in computer design, digital prepress, press work, Sign making/vehicle graphics, screen printing, sandblasting, and more. In addition, the student will be instructed in various finishing operations. The Program consists of a list of PDE required tasks and additional local or value added tasks.

<b>Specialized Equipment:</b>	<b>Related Occupations /Employment Opportunities:</b>	<b>Personal Qualifications:</b>
ProPrint Offset/duplicator printers ABdick Offset/duplicator printers Xerox Color copier Xante Plate Maker 5 & Black & White Printer Epson 44"Large Format Color Plotter Morgan Folding, Scoring, Perforating Machine GBC 44" Hot Laminator & Mounting Machine Saddlestich Machine Multi-die Book Binding Machine Xante Illumina Digital Off-set Press Vinyl Graphic Cutter Hydraulic Paper Cutter Hydraulic 3-Hole Punch Machine 4-Color Screen Printing Machine Screen Printing 30" Dryer Imprinter 44" Cold Laminator Heat Press Transfer Machine Xcaliber Board Trimmer 40" Rotary Trimmer Air Brush Equipment Padding Equipment Bates Numbering System Hot Foil Stamping Machine Exposure Unit Light Table Digital Equipment: Camera - Computers Scanner	Graphic Designer Desktop Publisher Commercial Printing Plants Magazine Publishers Advertising Agencies Self-Employment Sign Company/Vinyl Applications Screen Printer Finishing/Production Worker Off-Set Press Operator Art Director Project Management Specialty Shops	Artistic Ability/Creativity Communication Skills Creative Drive with a Vision Goal Oriented Patience Enjoys Hands-on Work Problem solving troubleshooting Skills Professional Mannerism Works Well in Groups Cognitive Skills Highly Motivated Self-Starters Business Skills

### CAREERS:

	27-1021.00	Commercial and Industrial Designers
	27-1024.00	Graphic Designers
	43-9031.00	Desktop Publishers
	51-5111.00	Prepress Technicians and Workers
HPO	51-5112.00	Printing Press Operators
	51-9194.00	Etchers and Engravers

Certification available to qualified students:

<b>Industry Certification</b>	<b>Provider Name</b>
Adobe Certified Associate-Graphic Design & Illustration	Certiport

# HEALTH PROFESSIONS

## 51.9999 HEALTH CARE TECHNOLOGY (PDE APPROVED PROGRAM OF STUDY)

The Health Professions Program is designed to prepare individuals to apply knowledge and skills in the health occupations. Instruction is provided in the basic skills in a variety of areas associated with health occupations such as health and medical services, pharmaceutical and medical instruments and supplies. Instruction includes, but is not limited to, foundations of health (medical terminology); anatomy and physiology; legal, ethical and economic aspects of health care; clinical laboratory procedures; basic health occupational skills; aseptic techniques; OSHA regulations; and infection control. Clinical education is an integral part of the program. Science and math taught by certificated science and math teachers will be coordinated and deemed essential for students to successfully reach their career objectives.

Leadership is an integral part of the entire program through participation in HOSA (Health Science Technology Student Organization). A mandatory clinical assignment is integrated into the curriculum. Seniors take the Nurse Aide course and certification test. The Program consists of a list of PDE required tasks and additional local or value added tasks.

<b>Specialized Equipment:</b>	<b>Related Occupations /Employment Opportunities:</b>	<b>Personal Qualifications:</b>
Datascope Pulse Oximeter Computer and Software Dental Operator Operational Patient Units Stretcher Rehabilitation Equipment Mechanical Lifts CPR Mannequins Wheelchairs	Nursing Aide Home Health Aide Nurse Physical Therapist Medical Physician	Dependable Problem Solving Skills Excellent Communication Skills Able to Work Independently and in a Team Critical Thinking Skills

### CAREERS:

	29-2099.00	Health Technologists and Technicians, All Other
	29-9099.00	Healthcare Practitioners and Technical Workers, All Other
HPO	31-1014.00	Nursing Assistants

### Certifications available to qualified students:

<b>Industry Certification</b>	<b>Provider Name</b>
BLS Healthcare Provider	American Heart Association
Heartsaver AED	American Heart Association
First Aid	American Red Cross
Nurse Aide Registry	Pennsylvania Department of Health
Personal Care Home Direct Care Staff Certificate	Pennsylvania Department of Public Welfare



# HORTICULTURE (Floriculture & Landscaping)

**01.0601 APPLIED HORTICULTURE/HORTICULTURAL OPERATIONS, GENERAL  
(PDE APPROVED PROGRAM OF STUDY)**

An instructional program having a combination of organized subject matter and practical experiences that generally prepares individuals to produce, process and market plants, shrubs and trees used principally for ornamental, recreational and aesthetic purposes and to establish, maintain and manage horticultural enterprises. Instruction emphasizes knowledge, understanding and application important to establishing, maintaining and managing horticultural enterprises such as arboriculture, floriculture, greenhouse operation and management, landscaping, nursery operation and management and turf management. The Program consists of a list of PDE required tasks and additional local or value added tasks.

<b>Specialized Equipment:</b>	<b>Related Occupations/Employment Opportunities:</b>	<b>Personal Qualifications:</b>
Mowers Skid Steer Tractor String Trimmer Computers Tillers	Landscape Architect Landscaping and Grounds Keeping Agricultural Worker Nursery and Greenhouse Workers	Ability to Work Independently and in a Team Problem Solving Artistic Ability Analytical Skills Communication Skills

## CAREERS:

HPO	11-9013.00	Farmers, Ranchers, and Other Agricultural Managers
	11-9013.01	Nursery and Greenhouse Managers
	27-1023.00	Floral Designer
	37-1012.00	First-Line Supervisors of Landscaping, Lawn Service, & Groundskeeping Workers
	37-3011.00	Landscaping & Groundskeeping Workers
	41-2031.00	Retail Salesperson
	45-2092.00	Farmworkers and Laborers, Crop, Nursery and Greenhouse

## Certifications available to qualified students:

<b>Industry Certification</b>	<b>Provider Name</b>
National Safe Tractor and Machinery Operator	Hazardous Occupations and Safety Training in Agriculture (HOSTA)
Certified Landscape Technician (CLT)	Pennsylvania Landscape & Nursery Association
Pennsylvania Certified Horticulturist (PCH)	Pennsylvania Landscape & Nursery Association
CareerSafe/OSHA	Texas Engineering Extension Service
Worker Protection Standard Training	US Environmental Protection Agency

Certification for Greenhouse Workers and Handlers	Region III
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## **HOTEL, RESORT & TOURISM MANAGEMENT**

### **52.1905 TOURISM AND TRAVEL SERVICES MARKETING OPERATIONS** **(PDE APPROVED TECH PREP PROGRAM)**

The Hotel, Resort & Tourism Management Program (HTMP) is an instructional program that prepares individuals to perform marketing and management functions in operational responsibilities associated with a wide variety of careers within the hospitality and tourism industries. Students will be instructed in the areas of personal development, communications, leadership, guest services, sales, financial processes, front office operations, housekeeping, food and beverage service, facilities management, property safety/security, resort management and other occupational preparation activities that will develop the student in the necessary competencies for employment in the hospitality and tourism industry.

The Program has been designed by the American Hotel & Lodging Association – Educational Institute with active industry involvement and approval. Through HTMP, partnerships are established with local hotels to provide student internships, field trips, and job shadowing.

<b>Specialized Equipment:</b>	<b>Related Occupations /Employment Opportunities:</b>	<b>Personal Qualifications:</b>
Computers	Lodging Manager Sales Manager Food and Beverage Manager Housekeeping Supervisor Marketing Manager Guest Services Clerk Sales Representative	Excellent Communication Skills Decision Making Skills Problem Solving Skills Pleasant Personality Ability to Work Independently and in a Team

#### **CAREERS:**

	11-2011.00	Advertising and Promotion Managers
	11-2021.00	Marketing Managers
HPO	11-2022.00	Sales Managers
	11-9051.00	Food Service Managers
	37-1011.00	First-line Supervisors of Housekeeping & Janitorial Workers
HPO	41-4012.00	Sales Representatives
HPO	43-4051.00	Customer Service Representatives
HPO	43-4081.00	Hotel, Motel & Resort Desk Clerks

#### Certifications available to qualified students:

<b>Industry Certification</b>	<b>Provider Name</b>
Certified Rooms Division Specialist (CRDS)	American Hotel and Lodging Educational Institute
ServSafe/Manager Food Safety Certification	National Restaurant Association

# HEATING, VENTILATION & AIR CONDITIONING

## 47.0201 HEATING, AIR CONDITIONING, VENTILATION AND REFRIGERATION MAINTENANCE TECHNOLOGY/TECHNICIAN (PDE APPROVED PROGRAM OF STUDY)

The Heating, Ventilation & Air Conditioning (HVAC) Program is an instructional program that combines classroom and practical learning experiences. This Program prepares individuals to apply technical knowledge and skills to install, repair and maintain commercial and domestic heating, air conditioning and refrigeration systems. Instruction includes theory and application of basic principles involved in conditioning of air (cooling and heating); filtering and controlling humidity; operating characteristics of various units and parts; blueprint reading; use of technical reference manuals; the diagnosis of malfunctions; overhaul, repair and adjustment of units and parts such as pumps, compressors, valves, springs and connections; and repair of electric/electronic and pneumatic control systems. This Program is certified by the National Center for Construction Education and Research. The Program consists of a list of PDE required tasks and additional local or value added tasks.

<b>Specialized Equipment:</b>	<b>Related Occupations /Employment Opportunities:</b>	<b>Personal Qualifications:</b>
Electric Pipe Threader Acetylene and Propane Gas Torches Bacharach Tester Arc Welders Reclaim and Recovery Unit Refrigerant High Pressure Indicators Electrical Meters Thermal Testers Compressor Testers	Helpers- Installation, Maintenance, and Repair Workers Refrigeration Mechanic Air Conditioning and Heating Mechanics First Line Supervisors of Production and Operating Workers Stationary Engineer	Mechanical Aptitude Ability to Work Independently and in a Team Problem Solving Troubleshooting Skills Communication Skills

### CAREERS:

HPO	49-9021.00	Heating, Air Conditioning, & Refrigeration Mechanics & Installers
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Certification available to qualified students:

<b>Industry Certification</b>	<b>Provider Name</b>
CareerSafe/OSHA	Texas Engineering Extension Service
EPA 608 Certification	Air Conditioning, Heating & Refrigeration Institute

# MARKETING

## 52.1801 SALES, DISTRIBUTION AND MARKETING OPERATIONS, GENERAL (PDE APPROVED PROGRAM OF STUDY)

The Marketing Program is an instructional program that provides instruction in the fields of sales, distribution and marketing operations and focuses on the process and techniques of direct wholesale and retail buying and selling operations. This Program is concerned with marketing, sales, distribution, merchandising and management including ownership and management of enterprises engaged in marketing. Marketing education programs prepare individuals to perform one or more marketing functions such as selling, pricing, promotion, product/service management, distribution, financing and marketing information management. In addition, instructional programs include varying emphasis on technical knowledge of products and/or services marketed; related communication, economic, technological and computation skills; and abilities and attitudes associated with human relations. The Program may also include management functions associated with owning and operating a business. Sales, distribution and marketing operations prepares individuals for occupations in such businesses as retail and wholesale trade, finance, insurance, real estate, entertainment, hospitality, food service, communications, storage and distribution. The Program consists of a list of PDE required tasks and additional local or value added tasks.

This Program does not include warehousing/logistics functions.

<b>Specialized Equipment:</b>	<b>Related Occupations /Employment Opportunities:</b>	<b>Personal Qualifications:</b>
Computers	General and Operations Manager Marketing Manager Sales Manager Advertising and Promotions Manager Supervisor/Manager Retail Sales Worker Customer Service Representative	Excellent Communication Skills Decision Making Skills Problem Solving Skills Pleasant Personality Ability to Work Independently and in a Team

### CAREERS:

	11-1021.00	General & Operations Managers (Entrepreneurship)
	11-2011.00	Advertising & Promotions Managers
	11-2021.00	Marketing Managers
HPO	11-2022.00	Sales Managers
HPO	41.1011.00	First-Line Supervisors of Retail Sales Workers
	41-2031.00	Retail Salespersons
HPO	41-4012.00	Sales Representatives, Wholesale and Manufacturing, Except Technical & Scientific Products

### Certifications available to qualified students:

<b>Industry Certification</b>	<b>Provider Name</b>
A*S*K Certification	A*S*K Institute
National Professional Certification in Customer Service	National Retail Federation Foundation

# MASONRY

## 46.0101 MASON/MASONRY (PDE APPROVED PROGRAM OF STUDY)

The Masonry Program is an instructional program that prepares individuals to apply technical knowledge and skills in the laying and/or setting of brick, concrete block, glass block, hard tile, marble and related materials using trowels, levels, hammers, chisels and other hand tools. The masonry curriculum combines classroom and practical learning experience including projects. The Program consists of a list of PDE required tasks and additional local or value added tasks.

<b>Specialized Equipment:</b>	<b>Related Occupations /Employment Opportunities:</b>	<b>Personal Qualifications:</b>
Trowels Levels Hammers and Chisels Jointers Diamond Blade Saws Spacing Rulers Mortar Mixers Hydraulic Cutters Bull Floats	Brickmasons and Blockmasons Tile and Marble Setters Segmental Pavers Cement Mason and Concrete Finishers First-line Supervisors and Managers/Supervisors- Construction Trade Workers	Ability to Work Independently and in a Team Creativity Patience Communication Skills

### CAREERS:

HPO	47-2021.00	Brickmasons and Blockmasons
	47-2022.00	Stonemasons
	47-2044.00	Tile and Marble Setters
	47-3011.00	Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters

Certifications available to qualified students:

<b>Industry Certification</b>	<b>Provider Name</b>
CareerSafe/OSHA	Texas Engineering Extension Service
Pennsylvania Builders Association Skills Certificate	Pennsylvania Builders Association

# OUTDOOR POWER EQUIPMENT TECHNOLOGY

## 47.0699 VEHICLE MAINTENANCE AND REPAIR TECHNOLOGIES, OTHER (PDE APPROVED PROGRAM OF STUDY)

The Power Equipment Technologies Program is an instructional program that prepares individuals to apply technical knowledge and skills to repair, service, maintain and diagnose problems on a variety of small internal-combustion gasoline engines and related systems used on portable power equipment such as lawn and garden equipment, chain saws, outboard motors, rototillers, snowmobiles, lawn mowers, motorcycles, personal watercraft and pumps and generators. This Program includes instruction in the principles of the internal-combustion engine and all systems related to the powered unit. Instruction also includes the use of technical and service manuals, state inspection code, care and use of tools and test equipment, engine tune-up/maintenance, engine overhaul, troubleshooting and diagnostic techniques, drive lines and propulsion systems, electrical and electronic systems, suspension and steering systems and service operations and parts management. The Program consists of a list of PDE required tasks and additional local or value added tasks.

<b>Specialized Equipment:</b>	<b>Related Occupations /Employment Opportunities:</b>	<b>Personal Qualifications:</b>
Drill Press Band Saw Jaw Table Vise Bench Grinders Mower Blade Balancer/Sharpener Hydraulic Press Grinding Machine Power Hone Boring Bar	Engine Repairer Service Gas-Engine Repairer Power-Saw Mechanic Small-Engine Mechanic	Handling and Moving Objects Making Decisions and Solving problems Standing Analytical Thinking Self-Control Mathematically inclined Able to interpret technical manuals

### CAREERS:

HPO	49-1011.00	First-Line Supervisors of Mechanics, Installers, & Repairers
	49-3051.00	Motorboat Mechanics and Service Technicians
	49-3052.00	Motorcycle Mechanics
	49-3053.00	Outdoor Power Equipment and Other Small Engine Mechanics

Certifications available to qualified students:

<b>Industry Certification</b>	<b>Provider Name</b>
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Outdoor Power Equipment Technician Certification	Equipment & Engine Training Council
S/P2	S/P2

# PLUMBING TECHNOLOGY

## 46.0503 PLUMBING TECHNOLOGY/PLUMBER (PDE APPROVED PROGRAM OF STUDY)

Plumbing Technology is an instructional program that prepares individuals to practice as licensed plumbers by applying technical knowledge, safety and skills to lay out, assemble, install and maintain plumbing fixtures and systems for steam, natural gas, oil, hot water, heating, cooling, drainage, lubricating, sprinkling and industrial processing systems in home and business environments. The Program includes instruction in source determination, water distribution, waste removal, pressure adjustment, basic physics, technical mathematics, blueprint reading, pipe installation, pumps, brazing and soldering, plumbing inspection and applicable codes and standards.

The Program combines classroom and practical learning experiences. Students also become involved with many community service projects related to their program of study. This Program is certified by the National Center for Construction Education and Research. The Program consists of a list of PDE required tasks and additional local or value added tasks.

<b>Specialized Equipment:</b>	<b>Related Occupations /Employment Opportunities:</b>	<b>Personal Qualifications:</b>
Electric Pipe Threader Acetylene and Propane Gas Torches Burner Test Bench Bacharach Tester Gas Welders	Pipefitter and Steamfitter Plumbers Plumber Heating and Air Conditioning Mechanics First Line Supervisor Managers and Mechanics, Installers and Repairers	Mechanical Aptitude Ability to Work Independently and in a team Problem Solving Troubleshooting Skills Communication Skills

### CAREERS:

HPO	47-2152.00	Plumbers, Pipefitters, & Steamfitters
	47-3015.00	Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters

Certification available to qualified students:

<b>Industry Certification</b>	<b>Provider Name</b>
CareerSafe/OSHA	Texas Engineering Extension Service
EPA 608 Certification	Air Conditioning, Heating & Refrigeration Institute



# PRECISION MACHINING

## 48.0501 MACHINE TOOL TECHNOLOGY/MACHINIST (PDE APPROVED PROGRAM OF STUDY)

The Precision Machining Program is an instructional program designed to give individuals instruction, knowledge and skills in all aspects of shaping parts for industrial application. Instruction involves making computations relating to work dimensions, tooling and feeds and speeds of machining. Emphasis is placed upon bench work and the operation of lathes, power saws, milling machines, grinders, drills and computer operated equipment (CNC and CIM). Instruction also includes the use of precision measuring instruments such as layout tools, micrometers and gauges; methods of machining and heat treatment of various metals; blueprint reading; and the layout of machine parts. Instruction prepares students to operate all types of hand and computer controlled machines.

The Program provides both practical skills and related theory in machine tool operation, CAD drawings along with the technical mathematics, science, and communication skills essential to a career in manufacturing. The Program is certified by the National Institute for Metalworking Skills, Inc. (NIMS). The Program consists of a list of PDE required tasks and additional local or value added tasks. Students can earn credentials from NIMS.

<b>Specialized Equipment:</b>	<b>Related Occupations/Employment Opportunities:</b>	<b>Personal Qualifications:</b>
CNC Lathe CNC Milling Machine Drill Press Horizontal and Vertical Band Saw Vertical/Horizontal Milling Machines Surface Grinders Computers with Mastercam Cad/Cam Software Lathes 3D Printer 3D Scanner CNC Router	Machine Tool Setter Machinist Machine Tool Operator Tool and Die Maker Mechanical Engineer Mechanical Inspector CNC Programmer	Mechanical Aptitude Manual Dexterity Ability to Work Independently and in a Team Communication Skills

### CAREERS:

HPO	51-4011.00	Computer-Controlled Machine Tool Operators, Metal & Plastic
HPO	51-4012.00	Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic
HPO	51-4041.00	Machinists
HPO	51-4081.00	Multiple Machine Tool Setters, Operators, & Tenders, Metal & Plastic
	51-4111.00	Tool & Die Makers

Certifications available to qualified students:

<b>Industry Certification</b>	<b>Provider Name</b>
NIMS Machining Level I	National Institute for Metalworking Skills, Inc
NIMS Machining Level I CNC milling	National Institute for Metalworking Skills, Inc
NIMS Machining Level I CNC turning	National Institute for Metalworking Skills, Inc
NIMS Machining Level I Manual Milling	National Institute for Metalworking Skills, Inc
NIMS Machining Level I Manual turning between centers	National Institute for Metalworking Skills, Inc
NIMS Machining Level I Manual turning with chucking	National Institute for Metalworking Skills, Inc
NIMS Machining Level I Manual Drill Press Operations	National Institute for Metalworking Skills, Inc
NIMS Machining Level I Measurement, Materials and Safety	National Institute for Metalworking Skills, Inc



# WELDING TECHNOLOGY

## 48.0508 WELDING TECHNOLOGY/WELDER (PDE APPROVED PROGRAM OF STUDY)

The Welding Technology Program is an instructional program that prepares individuals to apply technical knowledge and skills in gas, arc, shielded and non-shielded metal arc, brazing, flame cutting and plastic welding. Hand, semi-automatic and automatic welding processes are also included in the instruction. Students learn safety practices and types and uses of electrodes and welding rods; properties of metals; blueprint reading; electrical principles; welding symbols and mechanical drawing; use of equipment for testing welds by ultrasonic methods and destruction and hardness testing; use of manuals and specification charts; use of portable grinders; positioning and clamping; and welding standards established by the American Welding Society (AWS), American Society of Mechanical Engineers and American Bureau of Ships. The Program is certified by the American Welding Society. The Program consists of a list of PDE required tasks and additional local or value added tasks.

<b>Specialized Equipment:</b>	<b>Related Occupations /Employment Opportunities:</b>	<b>Personal Qualifications:</b>
SMAW, GMAW, GTAW, FCAW equipment Oxy-Acetylene, Plasma Cutting equipment All of the above is used with steel, stainless steel, and aluminum	Combination Welder Skilled production Welders and Laborers Engineering Technician	Mechanical Aptitude Manual Dexterity Patience Able to Work Independently Balance and Agility

### CAREERS:

HPO	51-4121.00	Welders, Cutters, Solderers, & Brazers
	51-4122.00	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders

Certification available to qualified students:

<b>Industry Certification</b>	<b>Provider Name</b>
American Welding Society Welding Certifications	American Welding Society

