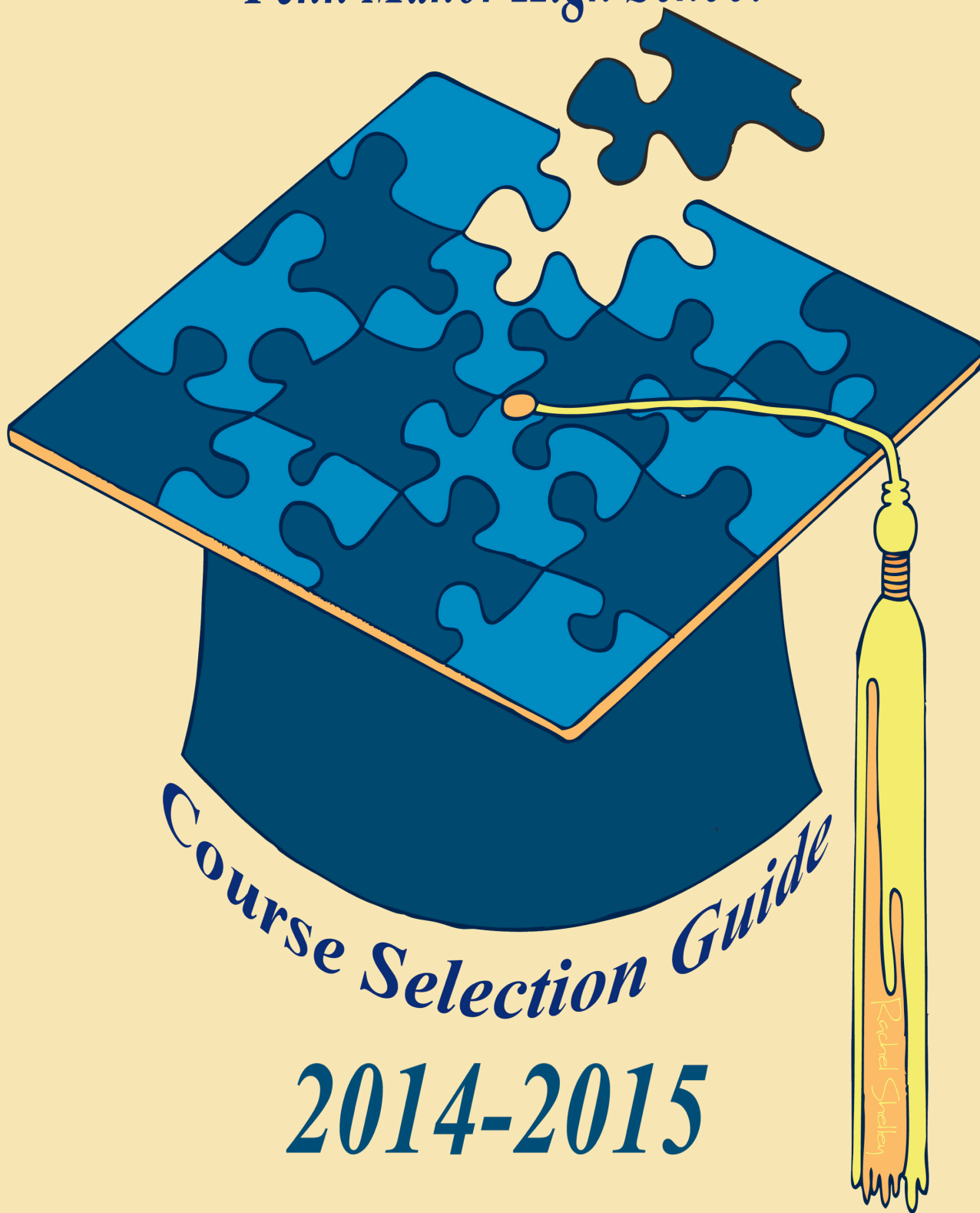


# *Penn Manor High School*



*Course Selection Guide*

*2014-2015*

**TABLE OF CONTENTS**

PRINCIPAL LETTER	3
GRADUATION REQUIREMENTS	5
CREDIT REQUIREMENTS	6
KEYSTONE EXAM REQUIREMENTS TO GRADUATE	6
CAREER PREP, COLLEGE PREP, HONORS, and AP COURSES	7
CLASS WEIGHTING FOR CALCULATION OF GPA	7
DECILE RANKING POLICY	8
HONORS PROGRAM	8
PA OPEN CAMPUS	9
COUNSELING SERVICES	11
POST HIGH SCHOOL EDUCATION PLANNING	11
FOUR-YEAR PLANNING GUIDE	11
NCAA FRESHMAN ELIGIBILITY STANDARDS	11
COURSE CHANGES	12
COURSE RECOMMENDATIONS	12
GRADUATION PROJECT	12
NON-DISCRIMINATION POLICY	13
 COURSE OFFERINGS AND SEQUENCES	
<i>ENGLISH</i>	15
<i>MATHEMATICS</i>	17
<i>SOCIAL STUDIES</i>	19
<i>SCIENCE</i>	22
<i>AGRICULTURE EDUCATION</i>	24
<i>APPLIED ENGINEERING AND TECHNOLOGY</i>	27
<i>ART</i>	29
<i>BUSINESS TECHNOLOGY</i>	31
<i>FAMILY AND CONSUMER SCIENCE</i>	33
<i>FOREIGN LANGUAGE</i>	34
<i>LEARNING SUPPORT</i>	36
<i>MUSIC</i>	37
<i>PHYSICAL EDUCATION, HEALTH AND SAFETY EDUCATION</i>	39
<i>ELECTIVES OPPORTUNITES FOR JUNIORS AND SENIORS</i>	41
 COURSE DESCRIPTIONS	
<i>ENGLISH</i>	43
<i>MATHEMATICS</i>	49
<i>SOCIAL STUDIES</i>	56
<i>SCIENCE</i>	65
<i>AGRICULTURE EDUCATION</i>	74
<i>APPLIED ENGINEERING AND TECHNOLOGY</i>	82
<i>ART</i>	88
<i>BUSINESS TECHNOLOGY</i>	94
<i>FAMILY AND CONSUMER SCIENCE</i>	97
<i>FOREIGN LANGUAGE</i>	99
<i>LEARNING SUPPORT</i>	105
<i>MUSIC</i>	108
<i>PHYSICAL EDUCATION, HEALTH AND SAFETY EDUCATION</i>	113
<i>ELECTIVE OPPORTUNITIES FOR JUNIORS AND SENIORS</i>	117

Dear Penn Manor Students and Parents,

Penn Manor High School's goal is to prepare students for life after high school. With the changes that are occurring in our world, it is important that students carefully select challenging classes that are related to their interests, abilities and will enable them to develop necessary skills for the future. Our staff is committed to offering quality classes that will prepare students for their future goals.

In addition to the academic knowledge students need to gain through their coursework, students should develop skills that will enable them to be successful in the 21<sup>st</sup> Century. These skills are not limited to, but include, critical thinking, effective communication, collaboration across networks, and accessing and analyzing information. For this reason students should make smart decisions when selecting courses.

The full course selection guide provides everyone with a complete description of the offerings of Penn Manor High School. Students and parents should give careful consideration to the requirements for graduation and the criteria that will be used to place students in the appropriate level of classes. It is our desire to provide clear guidelines, quality programs, and rigorous classes that will enable students to achieve the necessary academic and 21<sup>st</sup> Century skills to succeed in life after high school.

Sincerely,

Philip B. Gale, Ed.D.  
Principal

**GRADUATION REQUIREMENTS  
AND  
COURSE SELECTION PROCEDURES**

## GRADUATION REQUIREMENTS

All students are required to schedule four credits for each semester. Careful consideration should be given to which courses are selected so that all requirements for graduation are met and students are best prepared to meet their future goals. Every effort will be made to schedule the courses that students select. In the event of insufficient registration or facility limitations, the administration reserves the right to cancel any course or limit enrollment.

### **I. General Graduation Requirements** - *Total Credits needed to graduate: 28*

- English - 4 credits
- Math - 4 credits
- Social Studies - 4 credits
- Science - 4 credits
- Physical Education/Health - 1 credit
- Physical Education/Safety Education - 1 credit
- Graduation Project requirement
- Family and Consumer Science (FCS) requirement - Beginning with the Class of 2015, the FCS standards will be met through the general education curriculum.

Students must be enrolled in one or more English and Social Studies course every year. Of the four required Social Studies credits, one credit must be a non-American course. Of the four science credits, one credit must be Biology

### **II. Career & Technology Center Student** - *Total Credits needed to graduate: 28*

In order to be considered a full-day CTC student, a student must complete at least 6 credits of vocational training. A student must meet the following requirements:

- English - 3 credits
- Math - 3 credits
- Social Studies - 3 credits
- Science - 3credits
- Physical Education/Health - 1 credit
- Physical Education/Safety Education - 1 credit
- Graduation Project requirement
- Family and Consumer Science (FCS) requirement - Beginning with the Class of 2015, the FCS standards will be met through the general education curriculum.

Students who attend the Introduction to Health Careers program in their senior year must earn a credit in each of the following classes; English, math, social studies, and science.

**III. Agriculture Education Student - Total Credits needed to graduate: 28**

In order to be considered as an Agriculture (Ag) student, a student must complete 11 credits of Agriculture in grades 9 through 12. Substitution courses do not count toward the 11 credit total.

- English - 4 credits
- Social Studies - 3 credits
- Science - 3 credits (may include 1 credit of science through Ag curriculum)
- Math - 3 credits (may include 1 credit of math through Ag curriculum)
- Physical Education/Health - 1 credit
- Physical Education/Safety Education - 1 credit
- Graduation Project requirement
- Family and Consumer Science (FCS) requirement - Beginning with the Class of 2015, the FCS standards will be met through the general education curriculum.

Agriculture courses counted as required academic credits for Ag students.

- Math: Agribusiness and Ag Recordkeeping
- Science: Concepts of Biotechnology and Veterinary Science
- Ag students must complete courses in Algebra, Algebra II, Geometry, and Biology.

**CREDIT REQUIREMENTS**

To become a senior in good academic standing, students must pass all required classes during their freshman, sophomore and junior years and have earned a minimum of 20 credits. Students who do not meet these requirements must recover their credits outside of the school day.

**KEYSTONE EXAM REQUIREMENTS TO GRADUATE**

In the 2012-13 school year, the Pennsylvania Department of Education replaced the PSSA Grade 11 tests in math, reading, science, and writing with the Keystone Exams in Algebra, Literature, and Biology. To comply with Pennsylvania School Code 4.24, students must demonstrate mastery of the PA Academic Standards for Reading and Mathematics by attaining proficiency or better on the Keystone Exams in Algebra and Literature. Beginning with the Class of 2017, students will be required by the Pennsylvania Department of Education to demonstrate proficiency on the Algebra I, Biology and Literature Keystone Exams in order to graduate.

Students who attain proficiency or better on the Keystone Exams will receive a certificate from the Pennsylvania Department of Education. Students not demonstrating proficiency in any area must participate in a district-chosen remediation program and assessments. Students who do not attain receive focused remediation in the *Reporting Categories* (assessment anchors) for which they are performing at the *Basic* or *Below Basic* levels. These students will then have opportunities to retest for identified *Reporting Categories* and be administered a district-approved and Keystone-aligned assessment. The purpose of these requirements is to assure that all students are able to apply, analyze, synthesize, and evaluate information and to communicate significant knowledge and understanding. Students who do not demonstrate proficiency in any area must participate in a project based assessment (PBA) that will be determined by the Pennsylvania Department of Education.

## CAREER PREP, COLLEGE PREP, HONORS, and AP COURSES

### **I. Career Prep**

Career Prep courses do not have a prefix in the course title.

Courses are intended for students who fit one or more of the following criteria:

- planning to enter the work force after graduation.

### **II. College Prep**

College Prep courses are designated by the prefix CP in the course title.

Courses are intended for students who fit one or more of the following criteria:

- read and write at or above grade level.
- planning to attend post-secondary education.
- strong academic record and work ethic.
- meet the grade requirement set forth by the departments.

### **III. Honors**

Penn Manor High School Honors Program courses are designated by the word Honors in the course title.

Courses are accelerated courses intended for students who meet all of the following criteria:

- succeed in CP courses and desire an even more rigorous challenge.
- self-directed, self-motivated and are independent learners.
- meet the grade requirement set forth by the departments.

### **IV. Advanced Placement**

Advanced Placement courses are designated by the prefix AP in the course title.

Courses are accelerated courses intended for students who meet all of the following criteria:

- To receive AP credit for an Advanced Placement course, students must take the AP exam. If not, Honors credit will be given for the class.
- Meet the grade requirement set forth by the departments.

## CLASS WEIGHTING FOR CALCULATION OF GPA

<b>AP+</b>	<b>AP</b>	<b>Honors</b>	<b>CP and Career</b>
A = 5.5	A = 5	A = 4.5	A = 4
B = 4.4	B = 4	B = 3.5	B = 3
C = 3.5	C = 3	C = 2.5	C = 2
D = 2.5	D = 2	D = 1.5	D = 1

**DECILE RANKING POLICY**

Penn Manor High School acknowledges the usefulness of a system of computing grade point average (GPA) for secondary school students to inform students, parents, and others of their academic progress. Penn Manor High School utilizes a system of decile ranking based on grade point average for students in grades 9 through 12. Decile ranking (top 10%, 20%, 30%) will be computed to indicate a student's relative academic placement in relation to their peers.

Grade point average is determined by dividing the number of credits into the quality points earned. Extra quality points earned in weighted Honors (+.5) and Advanced Placement (+1) courses will be included in determining GPA.

Penn Manor students who take college level courses with the prior approval of the high school administration shall have grades from these courses included in determining their grade point average. College courses will receive additional weighting. Courses that are 100 level will receive Honors weighting (+.5), courses that are 200 level will receive AP weighting (+1) and courses that are 300 level and above will receive AP+ weighting (+1.5). Students who take courses through a foreign studies program, with the prior approval of the high school administration, shall have grades included in determining their grade point average.

Grade point average will be used for the purpose of naming the valedictorian and salutatorian. The valedictorian will be awarded to the student with the highest GPA and the greatest number of Advanced Placement credits. The Salutatorian will be the student with the second highest GPA and number of Advanced Placement credits. To be considered for valedictorian and salutatorian honors, a student must attend classes at Penn Manor High School for at least six semesters. A student's grade point average and decile ranking shall be entered on his/her record and all transcripts and shall be subject to the board's policy on release of student records.

**PENN MANOR HIGH SCHOOL HONORS PROGRAM**

To graduate with Honors designation on diploma a student must earn the following in grades 10-12:

- Five Honors Courses with a minimum grade of B or better in each.
- Four Advanced Placement credits with a minimum grade of B or better in each.
- Three levels of the same Foreign Language in grades 9-12 with a grade of B or better in each.
- Foreign Language courses taken in grade 9 count toward specific credit totals needed to graduate with Honors.
- All required core courses must be College Prep level or higher.
- Core courses are defined as English, math, social studies, and science.
- Students must maintain an overall, cumulative GPA of 3.75.



**PA OPEN CAMPUS**

Open Campus PA is a unique collaboration between Hempfield, Manheim Township and Penn Manor School Districts. Through this program students have gained greater choices in the courses they take and method of delivery to break down barriers of time and space. Open Campus classes were first offered in 2011-12 school year and each year the offerings have expanded. The classes will be offered online or as a hybrid class (online instruction and classroom time).

Students must be self-motivated and responsible to experience success in these courses. An application must be completed to enroll in one or more classes. The following classes will be offered during the 2014-15 school year:

**Art**

- AP Art: Concentration Portfolio

**Business**

- Marketing
- Personal Financial Literacy
- Sports and Entertainment

**English**

- CP English 9
- CP English 10
- CP English 11
- CP English 12
- Creative Writing

**Social Studies**

- CP American History 9
- CP Government & Economics
- CP World History
- AP Psychology

**Mathematics**

- CP Calculus
- CP Precalculus
- CP Geometry
- CP Statistics
- CP Algebra 2
- CP Algebra 1A
- CP Algebra 1B

**Foreign Language**

- CP Chinese I
- CP Latin I
- Honors Español Médico (Spanish for Healthcare)
- Honors Español Comercial (Business Spanish)

**Science**

- CP Physics
- CP Chemistry
- CP Astronomy

**Technology & Engineering Education**

- Introduction to Video Game Design

**Music**

- Popular Music in America

**Physical Education**

- Fitness for Life – PE 9/10
- Health and Wellness

**COUNSELING SERVICES**

The Penn Manor High School Counseling Department provides a comprehensive counseling program to all students in grades 9 through 12. Academic, career, and personal/social needs are the focus and students have the opportunity to participate in a number of activities. Each counselor is prepared to assist students with the course selection process, explore post-secondary options, and provide academic and individual counseling.

**POST HIGH SCHOOL EDUCATION PLANNING**

With the increased opportunities for post-secondary education, it is important that students carefully plan their future by investigating all possible options. Admission requirements to the many post-secondary institutions vary considerably. The counseling department maintains a website that contains resources from many post-secondary institutions. These resources are accessible to students who need information regarding specific entrance requirements and programs of study. Counselors are familiar with the current college admission policies and are available to confer with students and parents about future educational plans. There are several factors that generally influence acceptance to a given institution. Usually considered as the most important is the high school record. This includes courses taken, grades earned, decile ranking, extracurricular activities and test scores.

**FOUR-YEAR PLANNING GUIDE**

One of the goals at Penn Manor High School is to best prepare students for post secondary success. A part of this goal can be achieved by helping students enroll in courses that are both rigorous in nature and relevant to their aspirations. Students will be encouraged by counselors to use a four-year planning guide to meet their goals. The guide should help students make the most of their high school experience. If you would like more information about this process or post-secondary opportunities, please contact the counseling department.

**NCAA FRESHMAN ELIGIBILITY STANDARDS**

Students who plan to participate in college athletics must make sure that all NCAA academic requirements are met. For information regarding the rules students should meet with their coach and school counselor. For more information regarding the rules go to [www.NCAA.org](http://www.NCAA.org) or [www.eligibilitycenter.org](http://www.eligibilitycenter.org).

**COURSE CHANGES**

Student schedules will be mailed home in the summer. The days and times when students are able to make changes to their schedules will be included in the summer mailing. To make a schedule change, you must meet with a counselor on one of the days listed in the letter. No changes will be made after this time period ends. Depending on the number of students who are requesting changes to their schedule, there may be a wait to see a counselor.

The following parameters must be met in order for a scheduling change to occur:

- student must have a valid educational reason for the schedule change.
- there must be an open seat available for the student in the new course.
- counselor and administration must approve the change.

If you have any questions about student schedules or you are unable to attend on a schedule change day, please call your counselor at 872-9520, ext. 1820.

**COURSE RECOMMENDATIONS**

Core area teachers will make course level recommendations for next year for each student in their class. The course level will be based on multiple measures including assessment scores, student ability, and course expectations. Teachers will communicate to students the level for which they were recommended. If a student wishes to change the recommendation, student and parent should communicate their desire with the teacher giving the recommendation.

**PENN MANOR HIGH SCHOOL  
GRADUATION PROJECT**

The Graduation Project is a requirement of the Penn Manor High School curriculum and a mandate from the Pennsylvania Department of Education. To complete the project each student will develop a cumulative career exploration project that will provide students with a post-secondary plan. The project is aligned with the Pennsylvania Career and Work Standards and the Lancaster County Career Pathways.

The project will be used to guide students along their journey towards graduation. Components of a student's project will include interest inventories, resume development, community service, and interviews with employers.

During the first marking period of the student's senior year, the student will present the project to a committee or a counselor. The format of the presentation will be similar to an interview. After the presentation, the student will be scored with a rating of Advanced, Proficient, Basic, or Below Basic. In order to successfully complete the project a student must receive a rating of Proficient or Advanced. The staff of Penn Manor High School will serve as a resource to students as they develop their career exploration project.

**NON-DISCRIMINATION POLICY**

The Penn Manor School District, an equal opportunity employer, will not discriminate in employment, education programs or activities, based on race, sex, handicap or because a person is a disabled veteran or a veteran of the Vietnam era. This policy of nondiscrimination extends to all other legally protected classifications. Publication of this policy in this document is in accordance with state and federal laws including Title IX of the Educational Amendments of 1972 and Sections 503 and 504 of the Rehabilitation Act of 1973. For information regarding civil rights or grievance procedures, contact Dr. Michael G. Leichliter, Section 504 Coordinator, at Penn Manor Administration Office (872-9500).

**DEPARTMENT  
COURSE OFFERINGS  
AND  
SEQUENCES**

<b>ENGLISH COURSE OFFERINGS AND SEQUENCES</b>
---

The flowchart below lists the standard progression of courses within the English Department. However, other courses are offered that also fulfill English requirements. Students should review the course descriptions to determine which courses are right for their goals, grade level, and grades in previous courses. Students should make sure they meet the prerequisites, listed in the course descriptions, for the courses they want and that they obtain any teacher recommendations needed. Advanced Placement Literature and Advance Placement Composition are two-credit courses that meet for both semesters.

	<b>CAREER PREP</b>	<b>COLLEGE PREP</b>	<b>HONORS</b>	<b>ADVANCED PLACEMENT</b>
<b>Grade 9</b>	Foundations of Literacy I - A and B	CP Foundations of Literacy	Honors Foundations of Literacy	
<b>Grade 10</b>	Foundations of Literacy II - A and B	CP Foundations of Literacy II	Honors American Literature & Composition	
<b>Grade 11</b>	Applications of Literacy & Composition	CP American Literature & Composition CP World Literature	Honors British Literature & Composition	AP Literature AP Composition
<b>Grade 12</b>	Senior Media Literacy	CP English Composition CP World Literature	Honors English Composition	AP Literature AP Composition

### **Recommendations**

Students are encouraged to take more than four English courses during their high school career. Courses in journalism, creative writing, and world literature, while not included in the traditional progression of courses, are recommended for enrichment. There is a summer reading requirement for all College Prep, Honors, and AP level classes. Consult the high school library website during the summer for details.

**Additional Opportunities**

- CP Creative Writing (available as an English credit elective only)
- CP Journalism (available as an English credit elective only)
- CP World Literature and Composition (available as an English credit for juniors and seniors)

**Open Campus Classes**

Students who wish to register for Open Campus classes must complete an application before the end of the course request process. Applications can be found in the in the counseling office or on the high school website under “Course Selection”. Students who wish to register for Open Campus classes after the course request process must complete an application and make an appointment with their counselor to see what classes are available.

Students who register for Open Campus classes should be motivated to succeed in an online environment, able to work independently to complete assignments, and responsible to meet deadlines set forth by the instructor. Students will not be permitted to drop Open Campus classes once they have begun. Students who need assistance with their Open Campus classes should contact their online teacher or their counselor.

The following are Open Classes available for students from this department:

CP English 9  
CP English 10  
CP English 11  
CP English 12  
CP Creative Writing



## MATHEMATICS COURSE OFFERINGS AND SEQUENCES

The flowchart below lists the standard progression of courses within the Mathematics Department. Courses should be chosen from the column, which most suits a student's goals and needs. Students should review the course descriptions to determine which courses are right for their goals, grade level, and grades in previous courses. Students should make sure they meet the prerequisites, listed in the course descriptions, for the courses they want and that they obtain any teacher recommendations needed. Most mathematics courses are offered in both the fall and spring, except for the advanced placement courses, which meet all year and are worth two credits.

The table below describes a typical path for each of the tracks offered at the High School. There are opportunities for students to cross tracks if an interest is presented, academic prerequisites are met and teacher recommendations are obtained. Students should consult their guidance counselor and their math teacher to learn more about the requirements to switch into a more challenging track.

HONORS/AP	COLLEGE PREP	CAREER PREP
Honors Advanced Algebra 2	CP Algebra 1A CP Algebra 1B	Intro Algebra A Intro Algebra B
Honors Geometry/Trigonometry	CP Algebra 2	Intro Algebra C Career Algebra 2
Honors Math Analysis	CP Geometry/Trigonometry	Career Geometry Algebra 3/Trigonometry
Honors Calculus AP Calculus AB AP Calculus BC AP Statistics	CP Precalculus CP Statistics	

### **Recommendations**

Foundations of Algebra is only offered to freshman in the fall semester. Students who enroll in Foundations of Algebra must enroll in Intro Algebra A in the spring of their freshman year and then Intro Algebra B in the fall of their sophomore year. CP Algebra A is offered only in the fall semester and must be followed by CP Algebra B in the spring of the same school year. Students who take Intro Algebra A/Intro Algebra B or CP Algebra A/CP Algebra B will earn 2 credits – 1 math credit and one elective credit.

It is recommended that CP Geometry/Trigonometry or Honors Geometry/Trigonometry be completed before taking the SAT.

Students are encouraged to take more than four mathematics courses during their high school career.

**Open Campus Classes**

Students who wish to register for Open Campus classes must complete an application before the end of the course request process. Applications can be found in the in the counseling office or on the high school website under “Course Selection”. Students who wish to register for Open Campus classes after the course request process must complete an application and make an appointment with their counselor to see what classes are available.

Students who register for Open Campus classes should be motivated to succeed in an online environment, able to work independently to complete assignments, and responsible to meet deadlines set forth by the instructor. Students will not be permitted to drop Open Campus classes once they have begun. Students who need assistance with their Open Campus classes should contact their online teacher or their counselor.

**Open Campus Classes**

CP Algebra 1A

CP Algebra 1B

CP Algebra 2

CP Geometry

CP Statistics

CP Calculus

CP Precalculus

## SOCIAL STUDIES COURSE OFFERINGS AND SEQUENCES

The flowchart below lists the standard progression of courses within the Social Studies Department. Students should review the course descriptions to determine which courses are right for their goals, grade level, and grades in previous courses. Students should make sure they meet the prerequisites, listed in the course descriptions, for the courses they want and that they obtain any teacher recommendations needed. Students are required to earn a non-American history credit for graduation. The non-American options are: Western or Eastern World History, AP European History, or AP World History.

### Class of 2016, 2017, and 2018

	CAREER PREP	COLLEGE PREP	HONORS	ADVANCED PLACEMENT
<b>Grade 9</b>	US History II	CP US History II	Honors US History II	
<b>Grade 10</b>	Civics & Government	CP Civics & Government	Honors Civics & Government	AP Government* AP US History* *teacher recommendation
<b>Grade 11</b> (Must choose 1 of the 3 courses listed.)	Eastern World History Western World History Economics	CP Eastern World History CP Western World History CP Economics	Honors Eastern World History Honors Western World History Honors Economics	AP US History AP Government AP European History AP World History AP Economics
<b>Grade 12</b> (Must choose 1 of the 3 courses listed.)	Eastern World History Western World History Economics	CP Eastern World History CP Western World History CP Economics	Honors Eastern World History Honors Western World History Honors Economics	AP US History AP Government AP European History AP World History AP Economics

**Class of 2015 only**

	<b>CAREER PREP</b>	<b>COLLEGE PREP</b>	<b>HONORS</b>	<b>ADVANCED PLACEMENT</b>
<b>Grade 9</b>	US History I	CP US History I	Honors US History I	
<b>Grade 10</b>	Civics & Government	CP Civics & Government	Honors Civics & Government	
<b>Grade 11</b>	Eastern World History Western World History	CP Eastern World History CP Western World History	Honors Eastern World History Honors Western World History	AP US History AP Government AP European History AP World History AP Economics
<b>Grade 12</b>	US History II	CP US History II	Honors US History II	AP US History AP Government AP European History AP World History AP Economics

**Recommendations**

Any AP course can be taken junior or senior year, but students must take Western or Eastern World History, AP European History, or AP World History to graduate.

**Additional Opportunities**

The following courses are offered as electives to juniors and seniors, but do not count towards one of the four required social studies courses

- Military History
- Social Psychology
- The Turbulent 1960's
- Criminal Justice

**Open Campus Classes**

Students who wish to register for Open Campus classes must complete an application before the end of the course request process. Applications can be found in the in the counseling office or on the high school website under "Course Selection". Students who wish to register for Open Campus classes after the course request process must complete an application and make an appointment with their counselor to see what classes are available.

Students who register for Open Campus classes should be motivated to succeed in an online environment, able to work independently to complete assignments, and responsible to meet deadlines set forth by the instructor. Students will not be permitted to drop Open Campus classes once they have begun. Students who need assistance with their Open Campus classes should contact their online teacher or their counselor.

**Open Campus Classes**

CP American History 9

CP World History

CP Government & Economics

AP Psychology

## SCIENCE COURSE OFFERINGS AND SEQUENCES

The flowchart below lists the standard progression of courses within the Science Department. Biology is the only mandated science course. However, other courses are offered that fulfill science requirements. The complete list of courses can be found under *Additional Opportunities*. Students should review the course descriptions to determine which courses are right for their goals, grade level, and grades in previous courses. Students should make sure they meet the prerequisites, listed in the course descriptions, for the courses they want and that they obtain any teacher recommendations needed.

	CAREER PREP	COLLEGE PREP	HONORS	ADVANCED PLACEMENT
<b>Grade 9</b>	Earth Science	CP Principles of Science (prerequisite for CP Biology)	Honors Earth Science	
<b>Grade 10</b>	Biology A and B	CP Biology	Honors Biology	
<b>Grade 11 &amp; 12</b>	Applied Science Chemistry Ecology & Animal Behavior Forensics	CP Chemistry CP Physics of Mechanics CP Ecology & Animal Behavior Open Campus Astronomy	Honors Chemistry Honors Physics of Mechanics Honors Biology II Open Campus Astronomy	AP Physics B AP Biology AP Chemistry

### **Recommendations**

Honors students who are planning to take an AP science course are encouraged to take more than one science course each year beginning with their freshman year. College Prep students planning to take an AP science course are encouraged to take more than one science course each year beginning with their sophomore year. All students are encouraged to take more than four science courses during their high school career. Ecology/Animal Behavior, Forensics, Honors Open Campus Astronomy, Chemistry II and Biology II are recommended for enrichment either after completing the typical Earth Science, Biology, Chemistry, Physics sequence, or concurrently with another science course.

**Additional Opportunities**

Biology is the only mandated science course. The following courses are offered as science credits to juniors and seniors beyond the standard progression of science courses.

- Ecology & Animal Behavior
- CP Ecology & Animal Behavior
- CP Oceanography/Astronomy
- Forensics
- Honors Biology II
- AP Biology
- AP Chemistry
- AP Physics B
- Open Campus Honors Astronomy
- Concepts of Biotechnology (Agriculture)
- CP Veterinary Science (Agriculture)
- Honors Veterinary Science (Agriculture)

**Open Campus Classes**

Students who wish to register for Open Campus classes must complete an application before the end of the course request process. Applications can be found in the in the counseling office or on the high school website under “Course Selection”. Students who wish to register for Open Campus classes after the course request process must complete an application and make an appointment with their counselor to see what classes are available.

Students who register for Open Campus classes should be motivated to succeed in an online environment, able to work independently to complete assignments, and responsible to meet deadlines set forth by the instructor. Students will not be permitted to drop Open Campus classes once they have begun. Students who need assistance with their Open Campus classes should contact their online teacher or their counselor

**Open Campus Classes**

CP Physics

CP Chemistry

Honors Astronomy

<b>AGRICULTURE COURSE OFFERINGS AND SEQUENCES</b>
---

Students who elect courses in the Agriculture Education Department are prepared for a future in employment immediately after high school and/or 2 or 4 year post-secondary education programs. Agriculture teachers are very instrumental in helping students with job placement and researching scholarship opportunities. Student placement in higher level agriculture classes will be based on the following criteria, unless specifically stated in the course description:

- Successful completion of an introductory class or previous level class with a minimum grade of 80%.
- Students who earn 70-79% may place in a higher level with teacher recommendation.
- Determining grade will not include grading categories that do not reflect assessment, such as homework or extra credit.
- Performance on local assessments, such as practicums (hands-on assessments), midterms and final exams.
- Satisfactory completion of hands-on class activities
- Teacher recommendation

**Agriculture Science**

Agriculture Science at Penn Manor prepares students for careers by teaching Agriculture Science principles, small and large animal health and management, food science, plant science, leadership, problem solving, and communication skills. If you have any questions about the courses that best match your career plans, please see any agriculture education teacher. A nominal lab fee will be charged in most classes.

**Agriculture Mechanics**

Agriculture Mechanics at Penn Manor prepares students for careers by teaching mechanical principles, recordkeeping, problem solving, and communication skills. If you have any questions about the courses that best match your career plans, please see any Ag teacher.



**CAREER PATHS IN AGRICULTURAL SCIENCE**

	<b>PRODUCTION AGRICULTURE</b>	<b>HORTICULTURE FLORICULTURE</b>	<b>VETERINARY VET TECH VET ASSISTANT</b>	<b>AGRIBUSINESS</b>	<b>AGRICULTURE AND FOOD SCIENCE</b>
<b>Core Courses</b>	Intro to Agriculture, Food and Natural Resources (formally Ag Science I) Ag Science 2 Ag Science 3 Ag Science 4	Intro to Agriculture, Food and Natural Resources Ag Science 2 Ag Science 3 Ag Science 4	Intro to Agriculture, Food and Natural Resources Ag Science 2 Ag Science 3 Ag Science 4	Intro to Agriculture, Food and Natural Resources Ag Science 2 Ag Science 3 Ag Science 4	Intro to Agriculture, Food and Natural Resources Ag Science 2 Ag Science 3 Ag Science 4
<b>Supporting Courses</b>	Horticulture Agribusiness Ag Work Study	Horticulture Floriculture Agribusiness Ag Work Study	CP/Honors Vet Science Ag Work Study	Agribusiness College in the High School Agribusiness Ag Work Study	Biotechnology Wildlife and Natural Resources Management Ag Work Study
<b>Other Ag Classes</b>	Intro to Ag Mechanics Welding 1 Welding 2 Engines 1 Engines 2 Construction Agriculture Equipment	Intro to Ag Mechanics Welding 1 Engines 1 Construction	Agribusiness Biology Chemistry		Agribusiness

**CAREER PATHS IN AGRICULTURAL EQUIPMENT**

	<b>ENGINES AUTO/EQUIPMENT MECHANIC</b>	<b>PRODUCTION AG</b>	<b>WELDING/METAL WORKING</b>	<b>CONSTRUCTION</b>
<b>Core Courses</b>	Intro to Ag Mechanics Engines 1 Engines 2 Welding 1 Welding 2 Ag Equipment Ag Work Study	Intro to Ag Mechanics Engines 1 Engines 2 Welding 1 Welding 2 Ag Equipment Construction Ag Work Study	Intro to Ag Mechanics Welding 1 Welding 2 Engines 1 Ag Work Study	Intro to Ag Mechanics Welding 1 Welding 2 Engines 1 Construction Ag Work Study
<b>Certifications</b>	Stihl & Briggs and Stratton	Stihl & Briggs and Stratton	Stihl & Briggs and Stratton	Stihl & Briggs and Stratton
<b>Other Ag Courses</b>	Ag Business	Intro to Agriculture, Food and Natural Resources Ag Science 2 Ag Science 3 Ag Science 4 Ag Business Horticulture	Ag Business	Ag Business
<b>Supporting Courses</b>	Algebra II Chemistry Physics	Algebra II Chemistry Physics	Algebra II Chemistry Physics	Algebra II Accounting

## APPLIED ENGINEERING AND TECHNOLOGY COURSE OFFERINGS AND SEQUENCES

The flowchart below lists the standard progression of courses within the Applied Engineering and Technology Department. Students should review the course descriptions to determine which courses are right for their goals, grade level, and grades in previous courses. Students should make sure they meet the prerequisites, listed in the course descriptions, for the courses they want and that they obtain any teacher recommendations needed.

Student placement in higher-level Applied Engineering and Technology classes will be based on the following criteria, unless specifically stated in the course description.

- Successful completion of an introductory class or previous level class with a grade of 70% or higher.
- Determining grade will not include grading categories that do not reflect assessment, such as homework or extra credit.
- Performance on local assessment, such as midterms and final exams.
- Participation in class activities
- Teacher recommendation

Students who are interested in Applied Science - Physics and Technology should request this course through the Science Department.

<b>GRADE 9</b>
9 <sup>th</sup> Grade Exploring Technology

<b>GRADE 10, 11, &amp; 12</b>
Computer Design and Drafting
Engineering & Model Building
Airbrushing/Digital Technical Illustration
3D Architectural Design & Model Building
Materials Processing
Cabinetry I
Cabinetry II
i-Life for the Classroom
Digital Photography
Computer Animation I
Computer Animation II
Electronics I
Electronics II
Digital Electronics & Robotics
Fundamentals of Web Design
Video Game Design

**Open Campus Classes**

Students who wish to register for Open Campus classes must complete an application before the end of the course request process. Applications can be found in the in the counseling office or on the high school website under “Course Selection”. Students who wish to register for Open Campus classes after the course request process must complete an application and make an appointment with their counselor to see what classes are available.

Students who register for Open Campus classes should be motivated to succeed in an online environment, able to work independently to complete assignments, and responsible to meet deadlines set forth by the instructor. Students will not be permitted to drop Open Campus classes once they have begun. Students who need assistance with their Open Campus classes should contact their online teacher or their counselor.

**Open Campus Classes**

CP Introduction to Video Game Design

## ART COURSE OFFERINGS AND SEQUENCES

The flowchart below lists the standard progression of courses within the Art Department. Students should review the course descriptions to determine which courses are right for their goals, grade level, and grades in previous courses. Students should make sure they meet the prerequisites, listed in the course descriptions, for the courses they want and that they obtain any teacher recommendations needed. A lab fee will be charged in most art classes.

Student placement in higher level art classes will be based on the following criteria, unless specifically stated in the course description:

- Successful completion of an introductory class or previous level class with a grade of 70% or higher.
- Determining grade will not include grading categories that do not reflect assessment, such as homework or extra credit.
- Performance on local assessments, such as midterms and final exams.
- Participation in class activities
- Teacher recommendation

GRADE 9	GRADE 10, 11, AND 12
Fundamentals of Design	Fundamentals of Design
Drawing & Painting I	Drawing & Painting I
Ceramic Trends	Drawing & Painting II
Ceramic Traditions	Ceramic Trends
Commercial Art	Ceramic Traditions
Video Production	Jewelry & Metals
Television Production	Photography I
	Photography II
	Commercial Art
	A.P Studio Art
	Video Production
	Television Production

**Open Campus Classes**

Students who wish to register for Open Campus classes must complete an application before the end of the course request process. Applications can be found in the in the counseling office or on the high school website under “Course Selection”. Students who wish to register for Open Campus classes after the course request process must complete an application and make an appointment with their counselor to see what classes are available.

Students who register for Open Campus classes should be motivated to succeed in an online environment, able to work independently to complete assignments, and responsible to meet deadlines set forth by the instructor. Students will not be permitted to drop Open Campus classes once they have begun. Students who need assistance with their Open Campus classes should contact their online teacher or their counselor.

**Open Campus Classes**

AP Art: Concentration Portfolio

<b>BUSINESS TECHNOLOGY</b> <b>COURSE OFFERINGS AND SEQUENCES</b>
---

The flowchart below lists the standard progression of courses within the Business Technology Department. Students should review the course descriptions to determine which courses are right for their goals, grade level, and grades in previous courses. Students should make sure they meet the prerequisites, listed in the course descriptions, for the courses they want and that they obtain any teacher recommendations needed.

Student placement in higher-level Business Education classes will be based on the following criteria, unless specifically stated in the course description:

- Successful completion of an introductory class or previous level class with a grade of 70% or higher.
- Determining grade will not include grading categories that do not reflect assessment, such as homework or extra credit.
- Performance on local assessment, such as midterms and final exams.
- Participation in class activities
- Teacher recommendation

<b>GRADE 10, 11, &amp; 12</b>
Accounting I
Accounting II
Accounting III (Grade 12 only)
Marketing / Advertising
Entrepreneurship
International Business & Investing

### **Open Campus Classes**

Students who wish to register for Open Campus classes must complete an application before the end of the course request process. Applications can be found in the in the counseling office or on the high school website under “Course Selection”. Students who wish to register for Open Campus classes after the course request process must complete an application and make an appointment with their counselor to see what classes are available.

Students who register for Open Campus classes should be motivated to succeed in an online environment, able to work independently to complete assignments, and responsible to meet deadlines set forth by the instructor. Students will not be permitted to drop Open Campus classes once they have begun. Students who need assistance with their Open Campus classes should contact their online teacher or their counselor.

**Open Campus Classes**

Marketing

Sports and Entertainment Marketing

CP Personal Financial Literacy



## FAMILY AND CONSUMER SCIENCES OFFERINGS AND SEQUENCES

The flowchart below lists the standard progression of courses within the Family and Consumer Sciences Department. Students should review the course descriptions to determine which courses are right for their goals, grade level, and grades in previous courses. Students should make sure they meet the prerequisites, listed in the course descriptions, for the courses they want and that they obtain any teacher recommendations needed.

The study of Family and Consumer Sciences will introduce a student to the study of information and resources to empower individuals and strengthen families. Introductory FCS Skills class is available to ninth grade students entering Penn Manor High School. This will provide an introduction to many areas of Family and Consumer Sciences, which will be available as electives as upperclassman. All other courses are content specific.

Student placement in advanced Family and Consumer Sciences classes will be based on the following criteria, unless specifically stated in the course description:

- Successful completion of an introductory or previous level course with a minimum grade of 70%.
- Determining grade will not include grading categories that do not reflect assessment, such as homework or extra credit.
- Performance on local assessments, such as midterms and final exams.
- Participation in class activities
- Teacher recommendation

GRADE 9	GRADE 10	GRADE 11 AND 12
FCS Skills	Foods & Nutrition	Foods & Nutrition
		Advanced Foods & Nutrition
	Child Development	Child Development
	Fashion & Design Foundations	Fashion & Design Foundations
		Living On Your Own
		Advanced Fashion & Design

## FOREIGN LANGUAGE OFFERINGS AND SEQUENCES

The flowchart below lists the standard progression of courses within the Foreign Language Department. Students should review the course descriptions to determine which courses are right for their goals, grade level, and grades in previous courses. Students should make sure they meet the prerequisites, listed in the course descriptions, for the courses they want and that they obtain any teacher recommendations needed.

The study of foreign languages is encouraged for students as it enhances overall communication skills, develops an appreciation for other cultures and provides a competitive edge to job applicants in today's global market. Each foreign language course in Levels I, II, or III are considered college-prep level courses. Students may register for the next course provided that the following criteria are met:

- Successful completion of an introductory class or previous level class with a grade of 70% or higher.
- Determining grade will not include grading categories that do not reflect assessment, such as homework or extra credit.
- Performance on local assessment, such as midterms and final exams.
- Participation in class activities
- Teacher recommendation

<b>FRENCH</b>	<b>GERMAN</b>	<b>ITALIAN</b>	<b>SPANISH</b>
French I	German I	Italian I	Spanish I
French II	German II	Italian II	Spanish II
French III	German III	Italian III	Spanish III
*Honors French IV	* Honors German IV		Honors Spanish IV
*AP French	*AP German		AP Spanish

\*Honors French IV and AP French and German IV and AP German may be offered alternating years.

**Recommendations**

Foreign Language courses are a part of the Honors program requirement. Students must complete three levels of the same high school courses, with a minimum grade of B in each course. Please refer to high school policies to ensure that all requirements are fulfilled. Full-year AP courses are offered in French, German, and Spanish. Students must have earned a B or better in the prerequisite course, and receive the recommendation of their teacher to register for those courses.

**Open Campus Classes**

Students who wish to register for Open Campus classes must complete an application before the end of the course request process. Applications can be found in the in the counseling office or on the high school website under “Course Selection”. Students who wish to register for Open Campus classes after the course request process must complete an application and make an appointment with their counselor to see what classes are available.

Students who register for Open Campus classes should be motivated to succeed in an online environment, able to work independently to complete assignments, and responsible to meet deadlines set forth by the instructor. Students will not be permitted to drop Open Campus classes once they have begun. Students who need assistance with their Open Campus classes should contact their online teacher or their counselor.

**Open Campus Classes**

CP Latin I

CP Chinese I

H Espanol Medico (Spanish for Healthcare)

Espanol Comercial (Spanish for Business)

## LEARNING SUPPORT COURSE OFFERINGS AND SEQUENCES

The flowchart below lists the standard progression of courses within the Learning Support Department. Students should review the course descriptions to determine which courses are right for their goals, grade level, and grades in previous courses.

### **Levels of Support**

**Itinerant** - Student is assigned to all regular education classes. A Learning Support teacher tracks student progress but is not teaching the class. Itinerant support students will have classes taught by a general education teacher.

**Supplemental** - Students assigned to at least one learning support class. The students comes in daily contact with a learning support teacher.

**Full time** - Classes taught by a learning support teacher that covers course content ranging from middle school to high school grade levels. Students are in a learning support setting for all classes.

ENGLISH	MATH	SOCIAL STUDIES	SCIENCE
RR Functional Reading	RR Functional Math	RR Social Studies	RR Science
RR Foundations of Literacy 9/10	RR Math A and B	ES Social Studies	ES Science
RR Transition English 11/12 A and B	RR Pre-Algebra A and B	ES CBI	
ES Communication Arts	RR Transition Math 11/12 A and B		
	ES Math		

## MUSIC COURSE OFFERINGS AND SEQUENCES

The flowchart below lists the standard progression of courses within the Music Department. Students should review the course descriptions to determine which courses are right for their goals, grade level, and grades in previous courses. Students should make sure they meet the prerequisites, listed in the course descriptions, for the courses they want and that they obtain any teacher recommendations needed.

Student placement in Music classes will be based on the following criteria, unless specifically stated in the course description:

- Successful completion of an introductory class or previous level class with a minimum grade of 70%.
- Determining grade will not include grading categories that do not reflect assessment, such as homework or extra credit.
- Performance on local assessments, such as midterms, performance evaluations and final exams.
- Participation in class activities
- Teacher recommendation

<b>Performance Ensembles GRADE 9-10</b>	<b>Performance Ensembles GRADE 11-12</b>	<b>Music Electives GRADE 9-12</b>
Band	Band	Class Piano I
Orchestra	Orchestra	Class Piano II
Chorus	Chorus	Class Piano III
Girls Chorus	Girls Chorus	Guitar I
	Honors Band	Guitar II
	Honors Orchestra	Music Theory
	Honors Chorus	Honors Music Theory (Grade 10-12)
	Manor Singers (Grade 10-12)	History of Rock
		Theater Arts (Grade 10-12)

**Open Campus Classes**

Students who wish to register for Open Campus classes must complete an application before the end of the course request process. Applications can be found in the in the counseling office or on the high school website under “Course Selection”. Students who wish to register for Open Campus classes after the course request process must complete an application and make an appointment with their counselor to see what classes are available.

Students who register for Open Campus classes should be motivated to succeed in an online environment, able to work independently to complete assignments, and responsible to meet deadlines set forth by the instructor. Students will not be permitted to drop Open Campus classes once they have begun. Students who need assistance with their Open Campus classes should contact their online teacher or their counselor.

**Open Campus Classes**

CP Popular Music in America

## PHYSICAL EDUCATION, HEALTH and SAFETY EDUCATION COURSE OFFERINGS AND SEQUENCES

The flowchart below lists the standard progression of courses within the Physical Education, Health, and Safety Education Department. Students should review the course descriptions to determine which courses are right for their goals, grade level, and grades in previous courses. Students should make sure they meet the prerequisites, listed in the course descriptions, for the courses they want and that they obtain any teacher recommendations needed.

As part of their graduation requirement, students must earn a credit in Physical Education/Health 9 and Physical Education/Safety Education 10. If a student is scheduled for band, orchestra, or chorus cycle days 1, 3, and 5, they may schedule their physical education classes on cycle days 2, 4 and 6.

### **Physical Education/Health 9 or Physical Education/Health 9 (full year course with Music)**

This course is required of all ninth grade students. The class rotates with three health classes and three physical education classes per cycle.

### **Physical Education/Safety Education 10 or Physical Education/Safety Education 10 (full year course with Music)**

This course is required of all tenth grade students. Safety Education will require 22 days of the semester and the remaining days will be physical education.

Student placement in physical education classes beyond grades 9 and 10 will be based on the following criteria, unless specifically stated in the course description:

- Successful completion of an introductory or previous level course with a minimum grade of 80%.
- Determining grade will not include grading categories that do not reflect assessment, such as homework or extra credit.
- Performance on local assessments, such as midterms and final exams.
- Participation in class activities
- Teacher recommendation

GRADE 9	GRADE 10	GRADE 11	GRADE 12
Physical Education/Health 9	Physical Education/Safety Education 10	Physical Education/Anatomy	Physical Education/Anatomy
Physical Education/Health 9 -full year course with performance ensembles	Physical Education/Safety Education 10 - full year course with performance ensembles	Fitness Training/Current Health Issues I	Fitness Training/Current Health Issues I
		Sports Medicine and Lifetime Sports	Sports Medicine and Lifetime Sports
		Advanced Physical Education/Sports Officiating	Advanced Physical Education/Sports Officiating
		Women's Health and Self Defense	Women's Health and Self Defense

**Open Campus Classes**

Students who wish to register for Open Campus classes must complete an application before the end of the course request process. Applications can be found in the in the counseling office or on the high school website under “Course Selection”. Students who wish to register for Open Campus classes after the course request process must complete an application and make an appointment with their counselor to see what classes are available.

Students who register for Open Campus classes should be motivated to succeed in an online environment, able to work independently to complete assignments, and responsible to meet deadlines set forth by the instructor. Students will not be permitted to drop Open Campus classes once they have begun. Students who need assistance with their Open Campus classes should contact their online teacher or their counselor.

**Open Campus Classes**

CP Health Education

CP Physical Education



<b>ELECTIVES OPPORTUNITIES FOR JUNIORS AND SENIORS</b> <b>COURSE OFFERINGS AND SEQUENCES</b>
---

The flowchart below lists the standard progression of elective courses for juniors and seniors. Students should review the course descriptions to determine which courses are right for their goals, grade level, and grades in previous courses. Students should make sure they meet the prerequisites, listed in the course descriptions, for the courses they want and that they obtain any teacher recommendations needed.

GRADE 11	GRADE 12
SAT Prep (fall only)	Career Internship
Service Learning	Career Internship Independent Study
Service Learning Independent Study	Work Study
	Independent Studies

<p><b>DEPARTMENT COURSE DESCRIPTIONS</b></p>
--

## ENGLISH COURSE DESCRIPTIONS

Student placement in English classes will be based on the following criteria, unless specifically stated in the course description:

- Grade from previous class
  - To remain in an Honors class, grade must be at least a B.
  - To remain in College Prep level courses, grade must be at least a C.
  - To move to a higher level of coursework, grade must be an A.
- Performance on local assessments, such as benchmarks, midterms and final exams
- Keystone Exam scores
- PVAAS projections of proficiency levels
- Teacher recommendation

### **Foundations of Literacy (year long)**

**122**

#### **Grade 9**

This is a fundamental course to further the development of reading skills. Emphasis is placed on nonfiction reading. Vocabulary development is ongoing throughout the course.

### **College Prep Foundations of Literacy**

**123**

#### **Grade 9**

Emphasis in this course is on understanding several genres of literature: drama, short story, and novel. Analysis of themes and literary terms is included. Research skills are introduced.

#### **Additional information**

*There is a summer reading requirement for this course. Students will be required to take the Literature Keystone Exam at the conclusion of this course. The only exceptions will be if the student has previously taken and scored Advanced or Proficient on the Literature Keystone Exam.*



### **Honors Foundations of Literacy**

**124**

#### **Grade 9**

Honors Foundations of Literacy is an accelerated course for students who have excelled in English 8 and who have been recommended by their 8<sup>th</sup> grade English teacher as having the academic skills in both reading and writing as well as the willingness to continue to challenge themselves and to participate actively in a fast-paced, demanding academic environment. Emphasis in this course is on understanding several genres of literature: drama, short story, and novel. Analysis of themes and literary terms is included. Research skills are introduced.

#### **Additional information**

*There is a summer reading requirement for this course. Students will be required to take the Literature Keystone Exam at the conclusion of this course. The only exceptions will be if the student has previously taken and scored Advanced or Proficient on the Literature Keystone Exam.*



**Open Campus CP English 9****1231****Grade 9****1 credit**

This online course focuses on a study of literature, vocabulary, grammar, writing, and research. The class reviews a variety of literary genres including the short story, novel, drama, poetry, and non-fiction. Activities designed to enhance communication and comprehension are key elements of the course. Additionally, students registered for this class will be required to complete a formal research project.

**Foundations of Literacy II (year long)****125****Grade 10**

Foundations of Literacy II builds upon the fundamentals of Foundations of Literacy with a continuing emphasis on writing. Literature studies include the novel, nonfiction, poetry, and drama. Vocabulary development is ongoing. Usage, grammar, and mechanics will be improved through writing instruction.

**Additional information**

*Students will be required to take the Literature Keystone Exam at the conclusion of this course. The only exceptions will be if the student has previously taken and scored Advanced or Proficient on the Literature Keystone Exam.*

**College Prep Foundations of Literacy II****126****Grade 10**

This college preparatory course is for students who have demonstrated high ability in English and have a high degree of motivation, enabling them to achieve beyond a tenth grade level course. CP Foundations of Literacy II builds upon the fundamentals of College Prep Foundations of Literacy.

**Additional information**

*There is a summer reading requirement for this course. Students will be required to take the Literature Keystone Exam at the conclusion of this course. The only exceptions will be if the student has previously taken and scored Advanced or Proficient on the Literature Keystone Exam.*

**Honors American Literature and Composition 10****145****Grade 10**

This survey course in American Literature provides an overview of the development of American literature from the Colonial Period to the Modern Period. Reading and writing demands for the course are rigorous. Speech, vocabulary, and writing instruction as well as instruction in research methods are included. Usage, grammar, and mechanics will be improved through writing instruction. A literature-based research paper is a course requirement.

**Additional information**

*There is a summer reading requirement for this course.*

**Open Campus CP English 10****1261****Grade 10****1 credit**

This online course uses a genre approach to literature including short stories, drama, poetry, non-fiction, and the novel. Literary analysis and reading comprehension will be stressed. In addition, vocabulary study and grammar are emphasized. Developing an effective expository writing style will be addressed with a research paper. Additionally, students registered for this course will take the Keystone Exam at the end of the class.

**Applications of Literacy and Composition****129****Grade 11**

Students in Applications of Literacy and Composition will read critically through analyzing and interpreting both literature and nonfiction. Preparation for careers will be ongoing through the development of writing skills and speaking and listening activities. Through thoughtful discussions and application of class lessons, students are expected to achieve a greater understanding of the academic skills necessary to be career ready.

**Additional information**

*Students will be required to take the Literature Keystone Exam at the conclusion of this course. The only exceptions will be if the student has previously taken and scored Advanced or Proficient on the Literature Keystone Exam.*

**College Prep American Literature and Composition****131****Grade 11**

This course is recommended for eleventh grade college-bound students. American authors and their works are studied chronologically from the Colonial Period to the Modern Period. Contemporary American writers are included as their writings relate thematically to the earlier periods. Speech, vocabulary, grammar and usage, and writing instruction are all included in the course. A research paper is a course requirement.

**Additional information**

*There is a summer reading requirement for this course.*

**Honors British Literature and Composition****141****Grade 11****Prerequisite**

*Honors American Literature*

This Honors course for college-bound students is designed as a survey course of British literature, beginning with the Anglo-Saxon Period and concluding with the Modern Age. In addition to literary study, students will work with grammar, vocabulary, and writing correlated with reading. A research paper is a course requirement.

**Additional information**

*There is a summer reading requirement for this course.*

**Open Campus CP English****1342****Grade 11**

This course provides a chronological and historical study of American literature. Reading comprehension, analytical skills, writing, and vocabulary study are areas that are emphasized. A formal research paper and technology projects required.

**College Prep Creative Writing, Poetry and Fiction****133****Grade 11, 12****Prerequisite***Students who have passed the Keystone Literature Exam and qualify for a College Prep level course*

This writing course is intended for juniors and seniors who have a compelling interest in learning to write poetry, description, and narration for an audience of both peers and the public. It includes an intensive study of the qualities of good writing, including figurative language, content, focus, organization, and style as well as the reading and interpretation of various types of poetry and fiction that are considered models of good writing. Class members will make their work public by reading their work aloud, publishing it on a blog, and by submitting their pieces to various contests and publications.

**Additional information***There is a summer reading requirement for this course.***College Prep Journalism****135****Grade 11, 12****Prerequisite***Students who have passed the Keystone Literature Exam and qualify for a College Prep level course*

This course is open to eleventh and twelfth grade students who are interested in the field of journalism and in writing. Students will study and write editorials, news, and feature articles and work under the pressure of deadlines. Students will contribute to the publication of the school newspaper, *Penn Points*. There will be additional work in grammar and vocabulary development.

**Additional information***There is a summer reading requirement for this course.***College Prep World Literature and Composition****142****Grade 11, 12**

World Literature and Composition is designed for juniors and seniors who wish to look into the literary works of other languages and cultures. This course provides the student with an opportunity to develop a greater world understanding-- a necessary goal in this age of shrinking distances and instantaneous worldwide communication. Students will closely study a wide range of literary forms, including novels, short stories, poetry and drama. Writing, primarily in the forms of critical essays and "creative" pieces, will be emphasized. A research paper is a course requirement.

**Additional information***There is a summer reading requirement for this course.***Senior Media Literacy****130****Grade 12**

This non-traditional course for twelfth grade students has reading, writing, speaking and listening components. It includes study of media as well as other forms of communication. Writing activities include responding to the media and writing for a variety of audiences. Students research, write, deliver, and evaluate many types of small and mass communication. Vocabulary and grammar development continue. This course is designed for students planning to enter the workforce after graduation.

**College Prep English Composition****134****Grade 12**

This course is designed for college-bound seniors other than those in the honors sequence as preparation for the demands of college-level writing courses. Students will write literary analyses, informational and critical essays, argument, persuasion, and narration. Grammar, mechanics, and usage will be reviewed as needed. Student writing will be based on the reading of various works of non-fiction and fiction. A research paper is a course requirement.

**Additional information**

*There is a summer reading requirement for this course.*

**Honors English Composition****127****Grade 12**

This course is an intensive writing course for college-bound students who already possess a basic knowledge of grammatical and language conventions. Students will write literary analyses, informational and critical essays, argument, persuasion, and narration. Grammar, mechanics, and usage will be reviewed as needed. Student writing will be based on the reading of various works of non-fiction and fiction. A research paper is a course requirement.

**Additional information**

*There is a summer reading requirement for this course.*

**Open Campus CP English****1341****Grade 12**

This course is a study of British literature as well as a look at other examples of world literature and a survey of the development of the English language. Additionally, this course includes continued development of oral communication skills and language enrichment through vocabulary study. Several expository compositions and a major research paper are required.

**A.P. English – Literature****137****Grade 11, 12****Prerequisite**

*Honors British Literature and teacher recommendation*

This course is a year-long intensive literature, writing, and research course for academically adept students. Students will study representative short stories, plays, novels and poetry by Western and Eastern European, British, and American authors, playwrights, and poets. Through discussion, reading, writing, and research, students will extend their knowledge of literature and their understanding of human experience. Continued improvement of writing skills is stressed. Students who complete this class will earn two weighted credits. In order to earn AP weighted credit, students must take the Advanced Placement examination in May.

**Additional information**

*A reading list will be made available to entering AP students for summer reading.*

**A.P. English – Composition****147****Grade 11, 12****Prerequisite***Honors British Literature and teacher recommendation*

This year-long course is designed to enable students to read complex texts written in a variety of rhetorical contexts and to write rich prose for a variety of purposes. This course requires both extensive reading and writing, including a researched argument paper that synthesizes and evaluates both primary and secondary sources. Students who complete this class will earn two weighted credits. In order to earn AP weighted credit, students must take the Advanced Placement exam in May.

**Additional information***A reading list will be made available to entering AP students for summer reading.***Open Campus CP Creative Writing****1330****Grades 10, 11, 12****1 Credit**

This course is designed to give students who have already mastered basic writing skills a creative outlet. The course will use the writing process in developing personal essays, short stories, plays, and poems. Students will focus on developing characters, plot, and dialogue in plays and stories and on mastering imagery, meter, and rhythm in poetry.

**Additional information***This course does not fulfill an English credit for graduation requirements.*



## MATHEMATICS COURSE DESCRIPTIONS

Student placement in Math classes will be based on the following criteria, unless specifically stated in the course description:

- Grade from previous class
- Determining grade will not include grading categories that do not reflect assessment, such as homework or extra credit.
- Performance on assessments, such as midterms and final exams.
- PSSA scores from previous tests
- Keystone Algebra I exam scores from previous tests.
- PVAAS projections of proficiency levels
- Teacher recommendation

### CAREER PREP MATHEMATICS COURSES

#### **Pre-Algebra-A**

**216**

##### **Grade 9**

This is the first semester course of a year-long course designed for students who need to develop Pre-Algebra skills. Topics include Algebra and Integers, Rational Numbers, and Applying Algebra to Geometry. Pre-Algebra – B, the second half of the Pre-Algebra course, must be selected as a second semester course for students who choose Pre-Algebra – A. Students will be introduced to algebraic concepts and apply mathematical concepts to solve practical problems. The pace of this class is designed to provide significant opportunities for practice and review of new concepts.

##### **Additional information**

*Students who completed Pre-Algebra - A in the fall and Pre-Algebra - B in the spring will receive one math credit for Pre-Algebra and an academic elective credit.*

#### **Pre-Algebra-B**

**217**

##### **Grade 9**

This course is designed for ninth grade students as the second half of Pre-Algebra, to be taken in the spring semester, after having completed Pre-Algebra -A in the fall. Topics include: Linear equations, inequalities, systems of equations, functions, and extending Algebra to Statistics and polynomials.

##### **Additional information**

*Students who pass both Pre-Algebra-A and Pre-Algebra-B can then select Introductory Algebra A and Introductory Algebra B as the next math courses.*

#### **Introductory Algebra A**

**172**

##### **Grade 9 (fall semester only)**

This course is designed for ninth grade students who need to strengthen their mathematical skills and allows high school students to develop a solid mathematical foundation in Algebra 1. Students are provided with significant opportunities for practice and review throughout the course. Topics include real numbers and the language of Algebra, solving linear equations, and graphing relations and functions. Emphasis will be placed on applications. Students taking Introductory Algebra A must select Introductory Algebra B as a second semester freshman course and Introductory Algebra C as a fall sophomore course.

**Introductory Algebra B****176****Grade 9 (spring semester only)****Prerequisite***Introductory Algebra A*

This course is designed for ninth grade students who need to strengthen their mathematics skills and allows high school students to develop a solid mathematical foundation in Algebra 1. Students are provided with significant opportunities for practice and review throughout the course. Topics include analyzing linear equations, solving linear inequalities, data analysis, and solving systems of equations and inequalities. Emphasis will be placed on applications. Students taking Introductory Algebra B must select Introductory Algebra C as a fall sophomore course.

**Introductory Algebra C****1762****Grade 10 (fall semester only)****Prerequisite***Introductory Algebra B*

This course is designed for tenth grade students as the last semester of an Algebra I course. Topics include polynomials, factoring, quadratics and keystone exam review. Emphasis will be placed on applications. Students who pass Introductory Algebra A, Introductory Algebra B, and Introductory Algebra C can then select an Algebra II course.

**Additional information**

*Students will be required to take the Algebra I Keystone Exam at the conclusion of this course.*

**Algebra II****173****Grade 10 (spring semester only)****Prerequisite***Introductory Algebra B*

This is the second course in the career prep sequence for students who have passed Introductory Algebra A and B with average grades. This course applies algebra to topics such as functions, graphing techniques, quadratic equations, polynomials, exponents, and probability and statistics. Emphasis will be placed on applications. A graphing calculator would be helpful. Students who pass Algebra II and the Algebra Keystone exam will be recommended for Geometry. Students who pass Algebra II but do not pass the Keystone exam will be recommended for Algebra 3/Trigonometry.

**Additional information**

*Students will be required to take the Algebra I Keystone Exam at the conclusion of this course.*

*The only exceptions will be if the student has previously taken and scored Advanced or Proficient on the Algebra I Keystone Exam.*

**Geometry****181****Grade 10, 11**

This is the third course in the career prep sequence for students who have passed Algebra II with average grades. Topics from algebra will be reviewed, expanded and applied to study lines, polygons, circles, solids, and area. Emphasis is placed on application rather than on proof.

**Algebra III-Trigonometry****180****Grade 11, 12**

This is the fourth course in the career prep sequence and should be elected by students considering vocational schools. This course could also be chosen by students considering college programs, which do not require calculus, or by students who need to improve their math skills before taking CP Precalculus. This course emphasizes radical expressions, rational exponents, radical equations, complex numbers, applications of trigonometry, probability, and conic sections. A graphing calculator is recommended.

**COLLEGE PREP MATHEMATICS COURSES**

*Students must earn a B or better in their current college prep course to enroll in the next college prep level course.*

**College Prep Algebra I-A****175****Grade 9**

This course is designed for students in the college prep sequence. CP Algebra IA includes operations with real numbers, linear equations, relations and functions, linear inequalities, and statistics. Applications of algebraic topics are emphasized in this course. A graphing calculator is strongly recommended.

**Additional information**

*Students who completed CP Algebra I-A in the fall and CP Algebra I-B in the spring will receive one math credit for Algebra I and an academic elective credit.*

**College Prep Algebra I-B****1751****Grade 9**

This course is designed for students in the college prep sequence. CP Algebra IB includes systems of linear equations and inequalities, polynomials, factoring, quadratic functions and probability. Applications of algebraic topics are emphasized in this course. A graphing calculator is strongly recommended.

**Additional information**

*Students who completed CP Algebra I-A in the fall and CP Algebra I-B in the spring will receive one math credit for Algebra I and an academic elective credit. Students who completed CP Algebra I-A in the fall and CP Algebra I-B in the spring will be required to take the Algebra I Keystone Exam at the conclusion of this course.*

**College Prep Algebra II****179****Grade 10**

This is the second math course in the college prep sequence. It is recommended for all students considering a four-year college program. This course includes topics in linear equations and inequalities, functions and relations, polynomial and radical equations and inequalities, quadratic equations and probability and statistics. A graphing calculator is strongly recommended.

**Additional information**

*Students will be required to take the Algebra I Keystone Exam at the conclusion of this course.*

*The only exceptions will be if the student has previously taken and scored Advanced or Proficient on the Algebra I Keystone Exam.*

**College Prep Geometry/Trigonometry****182****Grade 11, 12**

This course is the third math course for all students who are considering a four-year college program. This course should be completed before taking the Scholastic Aptitude Test. This course includes proof, lines, polygons, circles, solids, area, volume, numerical trigonometry, and topics from coordinate geometry.

**College Prep Precalculus****185****Grade 11, 12**

This is the fourth course in the college prep sequence. It is recommended for all students considering a four-year college program. This course extends the study of algebraic and trigonometry techniques necessary for calculus. A graphing calculator is strongly recommended.

**College Prep Statistics****187****Grade 11, 12**

This course includes analyzing data, probability, distributions, variance, correlation, hypothesis testing, and inferences. It is recommended for any student who will need to take a Statistics course at the college level. Some students taking this course could take the Advanced Placement examination. Calculators will be used to analyze data throughout the course. A graphing calculator is recommended.

**Open Campus CP Algebra IA****1752****Grade 11, 12****1 credit**

This online Algebra 1A course is designed for the independent student who desires an alternate approach to the traditional classroom setting. Students enrolled in this course will study the topics of operations and properties of real numbers, solving equations and inequalities, percents, proportions, and similar figures, graphs, functions, and formulas, linear equations and their graphs, data and statistics, probability, graphing inequalities, and systems of equations and inequalities.

**Open Campus CP Algebra IB****1753****Grade 11, 12****1 credit**

This online Algebra 1B course is designed for the independent student who desires an alternate approach to the traditional classroom setting. Students enrolled in this course will study the topics of exponents and exponential functions, polynomials and factoring, quadratic equations and functions, radical expressions and equations, rational expressions and functions, connections to geometry.

**Open Campus CP Algebra 2****1791****1 credit****Grade 10, 11, 12**

This online Algebra 2 course is designed for the independent student who desires an alternate approach to the traditional classroom setting. Students enrolled in this course will study the topics of advanced linear and nonlinear functions, quadratic functions and applications, analysis of functions, advanced systems of equations and inequalities, polynomials and polynomial functions, rational expressions and functions, the complex number system, and exponential and logarithmic functions.

**Open Campus CP Geometry****1811****Grade 10, 11, 12****1 Credit****Prerequisite***Algebra 1*

This online Geometry course is designed for the independent student who desires an alternate approach to the traditional classroom setting. The course will develop geometry as a deductive system and includes the following topics: distance, lines, planes, angles, triangles, congruence, perpendicular and parallel lines and planes, area, similarity, transformations, coordinate geometry, circles and spheres, volume, and basic algebra review.

**Open Campus CP Calculus****1721****Grades 10, 11, 12**

This course will introduce and develop fundamental calculus principles and techniques with an emphasis on the practical value of calculus. Students will encounter genuine, real-world problems in business, economics, life sciences, and a wide range of other fields. This course will not prepare students for the AP exam, but will give them a clear understanding of the ideas of calculus as a solid foundation for subsequent courses. Students enrolled in this course will study the following topics:

- Limits and derivatives
- Methods of differentiation and their applications
- Definite and indefinite integration
- Methods of integration and their application
- Differential Equations

**Open Campus CP Precalculus****1851****Grades 10, 11, 12**

Students enrolled in Precalculus will study the following topics:

- Analysis of functions
- Polynomial and rational functions
- Exponential and logarithmic functions
- Circular and trigonometric functions
- Complex number system
- Plane analytic geometry
- Trigonometric identities and equations

**Open Campus CP Statistics****1871****Grades 11 & 12****1 Credit****Prerequisite***Successful completion of CP Alg 1, Alg 2, Geometry/Trigonometry*

This course is an introduction to the major concepts of data analysis, specifically exploring and describing univariate and bivariate data graphically and numerically, experimental design, anticipating patterns through probability, and statistical inference procedures. This class is recommended for any student who will need to take a Statistics course on the college level. Calculators and other online resources will be used to analyze data throughout the course. A TI-83+ or TI-84 graphing calculator is required.

**HONORS/ADVANCED PLACEMENT MATHEMATICS COURSES:**

*Students must earn a B or better in their current honors course to enroll in the next honors level course.*

**Honors Advanced Algebra II****177****Grades 9 and 10**

This is the first course in the honors/advanced placement sequence. Topics include linear and quadratic equations, systems of equations, functions, exponential functions, logarithms, matrices and determinants. A graphing calculator is recommended.

**Honors Geometry/Trigonometry****183****Grade 9, 10**

This is the second course in the honors/advanced placement sequence. This course uses algebra skills and proofs to study polygons, circles, solids, area, volume, and both triangle and circular trigonometry. A graphing calculator is recommended.

**Honors Math Analysis****184****Grade 10, 11**

This is the third course in the honors/advanced placement sequence. This course must be selected by any student planning to take A.P. Calculus. Topics include trigonometric functions, polynomial functions, and exponential functions, logarithmic functions, special functions, inequalities, transformations, conic sections, and limits. A graphing calculator is strongly recommended.

**Honors Calculus****171****Grade 11, 12**

This is the fourth course in the honors/advanced placement sequence. This course is designed for students entering college programs which require calculus. It is especially designed for those entering engineering, math, science, business, or professional studies. It includes topics typically found in a first semester calculus course including limits, derivatives and integrals. A graphing calculator is strongly recommended.

**A.P. Calculus AB****169****Grade 11, 12**

This year-long course should be taken by those who plan to take the advanced placement examination. Calculus AB is a course in single-variable calculus that includes limits and continuity, techniques and applications of the derivative, techniques and applications of the definite integral, and the Fundamental Theorem of Calculus. It is equivalent to at least a semester of calculus at most colleges and universities, perhaps to a year of calculus at some. Algebraic, numerical, and graphical representations are emphasized throughout the course. Students who score high enough on the exam may be able to obtain up to four credits from some universities. A TI -89 graphing calculator is available for each student to use. Students who complete this class will earn two weighted credits. In order to earn AP weighted credit, students must take the Advanced Placement examination in May.

**A.P. Calculus BC****189****Grade 11, 12**

This year-long course should be taken by those who plan to take the advanced placement examination. Calculus BC is a course in single-variable calculus that includes all the topics of Calculus AB plus additional topics in differential and integral calculus (including parametric, polar, and vector functions) and series. It is equivalent to at least a year of calculus at most colleges and universities. Algebraic, numerical, and graphical representations are emphasized throughout the course. Students who score high enough on the exam may be able to obtain up to eight credits from some universities. A TI -89 graphing calculator is available for each student to use. Students who complete this class will earn two weighted credits. In order to earn AP weighted credit, students must take the Advanced Placement examination in May.

**A.P. Statistics****215****Grade 11, 12**

Those who plan to take the advanced placement examination should take this year-long course. Statistics is a course that introduces students to the major concepts of data analysis, specifically exploring and describing univariate and bivariate data graphically and numerically, experimental design, anticipating patterns through probability and simulation, and statistical inference procedures. The focal point of the course is drawing conclusions based on a variety of inference techniques. Students who score high enough on the exam may be able to obtain up to 4 credits for an introductory college statistics course at some universities. A TI-84 graphing calculator is available for each student to use. Students who complete this class will earn two weighted credits. In order to earn AP weighted credit, students must take the Advanced Placement examination in May.

## **SOCIAL STUDIES COURSE DESCRIPTIONS**

Student placement in Social Studies classes will be based on the following criteria, unless specifically stated in the course description:

Grade from previous class

- Determining grade will not include grading categories that do not reflect assessment, such as homework or extra credit.
- Performance on local assessments, such as midterms and final exams
- PSSA scores from previous tests
- PVAAS projections of proficiency levels
- Teacher recommendation

### **United States History II**

**153**

#### **Grade 9 & Grade 12 (for 2014-15 school year only)**

Social, political, geographical, economic and cultural histories are interwoven in this comprehensive survey of the United States from World War I to the present. This chronicle of the United States from World War I focuses on industrialization, urbanization, the major wars, economic patterns and social change associated with the twentieth century global economy. Fundamental reading, writing, organizational, and technological skills are developed through research projects, instructional activities, and both teacher-directed and student-centered learning.

### **College Prep United States History II**

**154**

#### **Grade 9 & Grade 12 (for 2014-15 school year only)**

This college-prep level course is recommended for students considering post-secondary education but whose primary interests are away from the Social Studies field. This chronicle of the United States since World War I critically examines our recent past by focusing on urbanization, industrialization, major wars, and twentieth century economic and social change. Relationships are developed among historical events within the United States, Pennsylvania and the local community. Current issues are addressed. Essential reading, writing, and technological skills necessary for success at the post-secondary level are developed through research projects, instructional activities on reading and writing strategies, and both teacher-directed and student-centered learning. A writing research component is included. Daily homework is expected.

### **Honors United States History II**

**155**

#### **Grade 9 & Grade 12 (for 2014-15 school year only)**

This Honors level course is recommended for students planning to attend a four-year liberal arts college or university, and with a strong interest and/or aptitude in history and the social sciences. Students should be reading above grade level and performing at well above average level. Students should be highly motivated and able to function independently within the classroom environment. This chronicle of the United States since World War I critically examines our recent past by focusing on urbanization, industrialization, major wars, and twentieth century economic and social change. Relationships are developed among historical events within the United States, Pennsylvania and the local community. Current issues are addressed. Essential reading, writing, and technological skills are introduced and developed through research projects, instructional activities, and both teacher-directed and student-centered learning. A major research centered writing project is included. Independent reading, research, multi-tasking, and a strong work ethic are required for this course.



**Open Campus CP American History****1541****Grade 9****1 credit**

This online course provides students with a comprehensive foundation in the historical, geographic, political, socio-cultural and economic development of the United States during the period of the 1870s to the present. Students will examine the major issues, achievements, and challenges faced by our country and its leadership. The course is developed around Westward Expansion, 19th century industrial development, the social, economic, political, and cultural history of the late 19th and early 20th centuries, the emergence of the United States as a world power, both World Wars and modern American History.

**Civics and Government****1701****Grade 10**

Civics and Government is a course intended for students who do not plan on pursuing post-secondary education. This course provides students with a fundamental understanding of our American government. Students will be challenged to connect with the democratic process. Students will be expected to demonstrate their understanding of how the American and Pennsylvania systems of government function and how they impact the lives of individual citizens. This course will focus especially on the national and state levels of government. Students will demonstrate an understanding that US citizens have both rights and responsibilities in order for society to function. Fundamental reading, writing, and technological skills are developed through a series of common research and writing assignments.

**College Prep Civics and Government****1702****Grade 10**

The College Prep level course intended primarily for students who plan to pursue post-secondary education. This course provides students with a practical understanding of our American government. Students will be challenged to connect with the democratic process. Students will be expected to demonstrate their understanding of how the American and Pennsylvania systems of government function and how they impact the lives of individual citizens. This course will focus especially on the national and state levels of government. Students will demonstrate an understanding that US citizens have both rights and responsibilities in order for society to function. Substantial reading, writing, and technological skills are developed through a series of common research and writing assignments. Regular homework is to be expected.

**Honors Civics and Government****1703****Grade 10**

This Honors level course is recommended for students reading above grade level and performing at well above average level. Students should be highly motivated and able to function independently within the classroom environment. The course is designed to provide students with a thorough understanding of our American government. Students will be challenged to connect with the democratic process.

Students will be able to apply knowledge of the US and Pennsylvania Constitution and to demonstrate their understanding of how the American and Pennsylvania systems of government function and how they impact the lives of individual citizens. This course will focus especially on the national and state levels of government. Students will demonstrate an understanding that US citizens have both rights and responsibilities in order for society to function. Reading, writing, and technology will be used regularly to enhance skills that will be expected at the college level. Independent research and reading will be assigned. Daily homework is to be expected.

**Eastern World History****1704****Grade 11**

Career Prep Eastern World History is intended for students who do not plan on pursuing post-secondary education. The course explores major events from 1450 to the present that have shaped the regions of Asia, Africa, and the Middle East. Fundamental reading, writing, and technological skills are developed through research projects, instructional activities, and both teacher-directed and student-centered learning. Homework assignments will reinforce concepts and content introduced in class.

**College Prep Eastern World History****1705****Grade 11**

College Prep Eastern World History is a course that examines the Eastern World history from approximately 1450 C.E. up to the present day. This class approaches history through a chronological, geographic and thematic approach looking at threads of humanity over time. College Prep Eastern World History offers a balanced global approach, focusing on Africa, Asia, and the Middle East with references to the western world were needed. By combining time periods and historical themes, students will be able to understand and analyze the evolution and interactions of societies throughout history and begin to decipher what events have shaped the modern world. This course is geared towards students who are considering post-secondary education but whose primary interests are away from the Social Studies field. As a college prep level course, assignments are intended to expose and prepare students for the level of expectations they may face in higher education. Homework is an important component of the learning process.

**Honors Eastern World History****1706****Grade 11**

Honors Eastern World History is intended for students planning to attend a four year college or university, and with a strong interest and/or aptitude in history and the social sciences. Honors Eastern World History examines the Eastern World history from approximately 1450 C.E. up to the present day. This class approaches history through a chronological, geographical and thematic approach looking at threads of humanity over time. Students will analyze the changes and continuities that impact the societies of the Eastern World. The course offers a balanced global approach, focusing on Africa, Asia, and the Middle East with references to the western world were needed. By combining time periods and historical themes, students will develop the skills to analyze and understand the evolution and interactions of societies and begin to decipher what events have shaped the modern world. As an honors course, content requires a more critical analysis of the material, with the incorporation of more academically rigorous reading and writing assignments. Students will be asked to meet high expectations, intended to better prepare them for future studies in higher education. Daily homework is expected.

**Western World History****1707****Grade 11**

Career Prep Western World History is intended for students who do not plan on pursuing post-secondary education. The course explores major events from 1450 to the present that have shaped the regions of Europe and North and South America. Fundamental reading, writing, and technological skills are developed through research projects, instructional activities, and both teacher-directed and student-centered learning.

**College Prep Western World History****1708****Grade 11**

College Prep Western World History is geared towards students who are considering post-secondary education but whose primary interests are away from the Social Studies field. The course explores the events from 1450 to the present that have shaped the regions of Europe and North and South America. Essential reading, writing, and technological skills necessary for success at the post-secondary level are developed through research projects, instructional activities, and both teacher-directed and student-centered learning. Daily homework is expected.

**Honors Western World History****1709****Grade 11**

Honors Western World History is intended for students planning to attend a four year liberal arts college or university, and with a strong interest and/or aptitude in history and the social sciences. Through a regional and thematic approach, Western World History explores the events from 1450 to the present that have shaped the regions of Europe and North and South America. Essential reading, writing, and technological skills are developed through research projects, instructional activities, and both teacher-directed and student-centered learning. Independent reading and research and a strong work ethic are required for this course.

**Open Campus CP World History****1715****Grade 11, 12****1 credit**

This online course is an overview of world cultures and history. An understanding of the basic elements of culture serves as the introduction to the course. The geography, history, socio-cultural, economic and political characteristics and the development of Western Civilization, Middle East, India, China, Latin America, and Africa from 1450 to present are components of the course content. The course focuses on current issues that reflect upon historical and cultural trends. Components of this course include students completing Internet research projects along with discussions and summaries on current events and issues.

**Open Campus CP Government & Economics****1601****Grades 11, 12**

This online course is designed to give the student a comprehensive study of the structure and functions of the United States' political and economic systems. The student will develop the inquiry and analytical skills necessary to better understand our political and economic systems.

The systems will be studied through ideology, institutions, leadership, role of the citizen, and the decision making process. Awareness and examination of current events topics through various online issues is an integral component of this course for students.

**Economics****1710****Grade 11 or 12**

Economics is a social science concerned with the choices we all make in life to satisfy our wants and needs. Economics introduces students to a new way of thinking about the world. The primary units of study will include: (1) Fundamentals of Economic Decision-Making, (2) Economic Theory, (3) Money and Debt Management, (4) Business and Labor, (5) Macroeconomic Policies and Globalization, (6) Becoming Financially Secure.

As a career prep level course, the focus throughout the course will be upon mastering the skills and knowledge that are most useful and practical in the real world. Essential topics such as personal financial literacy will be emphasized. Students will practice these skills both within and outside the classroom. Students will conduct economic research and actively study the economic world around them. Homework assignments will reinforce concepts and content introduced in class.

**College Prep Economics****1711****Grade 11 or 12**

Economics is a social science concerned with the choices we all make in life to satisfy our wants and needs. College Prep Economics introduces students to a new way of thinking about the world. The primary units of study will include: (1) Fundamentals of Economic Decision-Making, (2) Economic Theory, (3) Money and Debt Management, (4) Business and Labor, (5) Macroeconomic Policies and Globalization, (6) Becoming Financially Secure.

As a college prep level course, assignments are intended to prepare students for the level of expectations they may face in higher education. This course will include a balance of both theoretical and practical elements; and will examine many economic principles that will assist students in developing the knowledge and skills required to make sound economic and financial decisions. Daily homework is expected.

**Honors Economics****1712****Grade 11 or 12**

Economics is a social science concerned with the choices we all make in life to satisfy our wants and needs. Honors Economics introduces students to a new way of thinking about the world. The primary units of study will include: (1) Fundamentals of Economic Decision-Making, (2) Economic Theory, (3) Money and Debt Management, (4) Business and Labor, (5) Macroeconomic Policies and Globalization, (6) Becoming Financially Secure.

As an honors course, content is studied at a faster pace, at a higher level of difficulty, and with the incorporation of additional assignments and projects. This course will include an emphasis on understanding economic principles and theories, while still instructing students in the valuable study of personal financial literacy. Students will be asked to meet high expectations, intended to better prepare them for their future studies in higher education. Daily homework is expected.

**ADVANCED PLACEMENT COURSES****A.P. United States History****162****Grade 11 or 12****Prerequisite**

*Minimum grade of an A in College Prep required history class or minimum grade of a B in an Honors required history class.*

Advanced Placement United States History is a two-semester college-level survey course in American political, economic and social history from pre-Columbian times to the present. Advanced skills requiring a critical analysis of reading, research and writing will be emphasized and developed, with the goal of preparing the student to succeed in post-secondary studies. To this end, considerable time is devoted to the critical analysis of primary and secondary sources in addition to extensive readings written on the collegiate level. Major projects include research-based essays, document based and free response essays, as well as in-class discussions and debates. Students who complete this class will earn two weighted credits. In order to earn AP weighted credit, students must take the Advanced Placement examination in May.

**Additional information**

*Students may take A. P. United States History to satisfy the Civics requirement.*

**A.P. European History/Technology and Research****163****Grade 11 or 12****Prerequisite**

*Minimum grade of an A in College Prep required history class or minimum grade of a B in an Honors required history class.*

Advanced Placement European History is a two-semester college-level historical survey course examining political, economic and social patterns of Eastern and Western Europe. Basic political and economic theories are analyzed and applied in historical context. Art, music, technology and social problems are used to clarify cultural changes. This course has a large research and writing component that helps prepare students for superb work in post-secondary education. Review sessions are offered on a weekly and individual basis. Students utilize a variety of multimedia techniques in completing their research. Students who complete this class will earn two weighted credits. In order to earn AP weighted credit, students must take the Advanced Placement examination in May.

**A.P. World History****1831****Grade 11 or 12****Prerequisite**

*Minimum grade of an A in College Prep required history class or minimum grade of a B in an Honors required history class.*

AP World History is a two-semester, college-level course exploring the history of the world in six chronological time periods, from early civilizations through the twentieth century. Students will strive to understand historical events through five prominent themes: (1) Human-Environment Interaction (2) Development of Cultures, (3) Politics and State-Building, (4) Economic Systems, and (5) Social Structures. Approximately equal weight is given to social, political, economic, and cultural topics. This course emphasizes the analytical and writing skills necessary for success in higher education. To this end, considerable time is devoted to the critical evaluation of primary and secondary sources, historical research, short essays, interactive activities, and the creation of a well-developed document-based question. While AP World History requires students to master selective factual knowledge, skills such as comparison and contrast, demonstrating change over time, and making connections between subjects are far more prominent than the memorization of detailed facts. Students will have access to many online resources, and are encouraged to use a variety of media and technology both within and outside the classroom. Students who complete this class will earn two weighted social studies credits, and may be eligible for college credit. In order to earn AP weighted credit, students must take the Advanced Placement examination in May.

**Additional information**

*Students may take A. P. World History to satisfy the Non-American History graduation requirement.*

**A.P. United States Government****149****Grade 10, 11, or 12****Prerequisite**

*Minimum grade of an A in College Prep required history class or minimum grade of a B in an Honors required history class.*

Advanced Placement United States Government is a two-semester college-level survey course in American government, political and economic systems. The course will include components on comparative, state and local government systems. Advanced research and analytical thinking, reading and writing skills are emphasized and developed, with the goal of preparing the student to succeed in university studies. Major projects include research-based essays, debates, community events attendance and simulations. Students who complete this class will earn two weighted credits. In order to earn AP weighted credit, students must take the Advanced Placement examination in May.

**A.P. Economics****220****Grade 11 or 12 (offered only in the spring semester)****Prerequisite**

*Minimum grade of an A in College Prep required history class or minimum grade of a B in an Honors required history class.*

AP Economics students will study a new way of thinking, understanding and explaining the world. This one semester course will be offered in the spring semester, and will be the equivalent of an introductory college-level course in Microeconomics. AP Economics will prepare students for the AP Exam as well as for future study in business, economics, history, and political science. The course will focus on how individuals and businesses deal with scarcity and competition in the real world. We will also address how the government, as well as other factors, can affect these economic decisions. Students will learn why the same product costs different amounts at different stores, in different cities, and at different times. Through a variety of classroom lessons, activities and simulations, students will engage with the subject of economics, and leave the course more thoroughly prepared to succeed at the university level. In order to earn AP weighted credit, students must take the Advanced Placement examination in May.

**A.P. Psychology****221****Grade 11 or 12****Prerequisite**

*Minimum grade of an A in College Prep required history class or minimum grade of a B in an Honors required history class.*

Advanced Placement Psychology is a two-semester college-level course designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. This is the equivalent to an *honors* introductory college course in psychology. This would be useful to students of all college majors as it is a requirement in any post-secondary education. Students will develop critical thinking and reading skills as well as scientific writing skills. Major projects include research-based essays, debates, experiments, and presentations. Students who enroll should be highly motivated and intellectually curious: There will be nightly readings from a college-level textbook and a rigorous course syllabus. Students who complete this class will earn two weighted credits. In order to earn AP weighting, students must take the AP exam in May.

**Additional information**

*Taking Social Psychology first is recommended; however, it is possible to bypass this requirement with teacher approval. This course will not count toward the four required social studies courses. This course has a summer project and rat laboratory, earning two credits, whereas the Open Campus option is only one credit.*

**Open Campus AP Psychology****1212****Grade 11, 12****1 Credit**

Advanced Placement Psychology is an in-depth study of human behavior. Topics such as learning, personality, abnormal psychology, therapy and human development will be studied. Textbooks are college-level and students will be expected to read independently. Analysis and synthesis will be demonstrated through the writing of essays and other activities. College credit and/or advanced placement may be obtained by achieving a satisfactory score on the standardized Advanced Placement Psychology exam. This course will be offered annually.

**SOCIAL STUDIES ELECTIVES****Military History****167****Grade 11 or 12****Prerequisite**

*U.S. History II and Civics and Government*

This elective course for juniors and seniors is designed for students with a strong interest in military history. The course will focus on major topics in world military history. Topics will include the causes of war, trends in strategy and tactics, and the influence of technology on the evolution of warfare. Course requirements will include unit research projects and portfolio project. Students utilize a variety of multimedia techniques in completing their research.

**Social Psychology****164****Grade 11 or 12****Prerequisite***U.S. History II and Civics and Government*

This elective course for juniors and seniors provides a systematic introduction to the field of social psychology, the study of how individuals are influenced by other people and social situations. The course will also cover basic concepts in general psychology. Topics covered include the brain, prejudice and discrimination, learning, human development, and mental illnesses. Special emphasis is placed on applying psychological principles and understanding to everyday life. Course requirements include participation in a rat laboratory and a reflection paper based on a social norms/violations. *This is a recommended course for those interested in Advanced Placement Psychology.*

**The Turbulent 1960's****168****Grade 11 or 12****Prerequisite***U.S. History II and Civics and Government*

This elective course, created for juniors and seniors, is intended for students that have a strong interest in 1960's history. Students who take this course will delve deeply into such topics as JFK, The Cold War, the Vietnam War and the Civil Rights Movement. Students will also study the popular culture of the period that has become so synonymous with the 1960s. Students will be required to complete one research paper and will interact with one another through technology forums where course content will be discussed and debated.

**Criminal Justice****148****Grade 11 or 12****Prerequisite***U.S. History II and Civics and Government*

This elective course for juniors and seniors is designed to provide an overview of the justice process and the criminal justice system in general. Concepts of crime, deviance and justice will be discussed and general theories of crime causality will be examined. Individual rights in society will be explored, as will the legal definitions of various crimes. Examination of the organization and operation of the three basic components of the criminal justice system—the police, the courts, and corrections—individually and in relationship to one another, will also be explored in this course.



## SCIENCE COURSE DESCRIPTIONS

Student placement in Science classes will be based on the following criteria, unless specifically stated in the course description:

- Grade from previous class
- Determining grade will not include grading categories that do not reflect assessment, such as homework or extra credit.
- Performance on local assessments, such as midterms and final exams
- PSSA scores from previous tests
- PVAAS projections of proficiency levels
- Teacher recommendation

### **Earth Science**

**100**

#### **Grade 9**

This semester course is a general course in Earth Science for ninth grade students who do not have a strong aptitude in science or math. Concepts in physical geology, hydrology, earth-sun relationships, and weather are studied. This course is recommended for students who intend to enter the working world or pursue technical or business training.

#### **Additional information**

*One Common Lab Assessment will be completed.*

### **College Prep Principles of Science**

**1011**

#### **Grade 9**

This one-semester course is offered to freshman intending to attend college. All College Prep level freshmen are expected to take this course. It is designed to continue onward from the middle school Sciences curriculum with little review of past concepts building upon the knowledge base already established. Students are expected to possess a working knowledge of previous studies. The primary units of study will include: Scientific Inquiry and Processing Skills, Independent Learning, Physical Science, Chemical Basis of Life, and Biological Sciences with emphasis on preparing the student for success on the Biology Keystone Exam.

#### **Additional information**

*One Common Lab Assessment will be completed.*

**Honors Earth Science****102****Grade 9**

This course is similar in content to College Prep Earth Science, but has an increased emphasis on higher level thinking skills and mathematics such as graph interpretation and extrapolation. The lab portion of this class is fundamentally the same as the 101 level course with an even greater emphasis on independent math and computer skills. Honors Earth Science involves more depth and breadth of the content with an introduction to Astronomy and Oceanography. Students must have a strong background in math and science along with a strong motivation to learn in order to be successful. The two mandatory Common Lab Assessments are completed with minimal input from the teacher. There is a further reduction in lecture time with increased reliance on notes/work posted online to facilitate independent and collaborative 21<sup>st</sup> Century learning. Scientific technical writing skills applied to formal lab reports will be stressed. In this Honors level course, greater reliance on electronic devices, including but not limited to personal laptop computers, tablets, smart phones, etc. is encouraged. Little in-class time is spent reviewing while reference to the course Moodle page is emphasized. Honors tests are much longer and detail orientated than the 100 or 101 level course with significantly more essay questions designed to probe understanding. Examples of additional class work include independent completion of the Earthquake Tension Lab, Mt. Capulin mapping problem, and adiabatic lapse rate determinations.

**Additional information**

*Two Common Lab Assessments will be completed.*

**Biology****103****Grade 10**

This two credit, year long course is a study of Life Science for students who do not have a strong aptitude in math or science and who do not intend to pursue college level studies. This course includes topics in the nature of science, basic life chemistry, cells, genetics and ecology. It is a Keystone Exam preparatory class.

**Additional information**

*One Common Lab Assessment will be completed*

**College Prep Biology****104****Grade 9, 10****Prerequisite**

*CP Principles of Science*

This course in Biology is for students with a demonstrated aptitude in math and science. This course is recommended for the college-bound student who intends to major in something other than a scientific field. Course material includes in-depth studies of the nature of science, basic nature of life, life chemistry, cell structure, cell reproduction, genetics and ecology. A different textbook with a higher reading level from that of the 103 level course is utilized. Less time is spent reviewing in order to maximize the amount of time spent on content detail such as structures, functions, and biochemistry. This class places a greater emphasis on independent/partner/group work for completing written work and lab analyses. Tests at the College Prep level require more pre-question reading and tend to have more application style questions requiring a greater degree of analysis with the conclusions reached relating strongly to the concepts being tested. Test questions tend to be more conceptual in nature as opposed to direct factual recall. It is a Keystone Exam preparatory class.

**Additional information**

*One Common Lab Assessment will be completed.*



**Honors Biology I****105****Grade 9, 10**

This course in Biology is for students with a high aptitude for science and math. It is designed for the college-bound student who plans to major in a scientific field. Topics include the nature of life, biochemistry, cell structure, cell reproduction, ecology, and genetics. Scientific technical writing skills applied to formal lab reports will be stressed. Homework can be expected every night with this course. In addition, reports on three current events per marking period are required as opposed to none in the CP Biology course. There are more tests and quizzes in this course with an average of two per unit. Tests typically have additional multiple choice questions and more closed response questions. Additionally, more out-of-class (long term, individual) work is assigned over vacation time as well. Prior to exams, a 2-4 page review guide will be submitted to the instructor. It is a Keystone Exam preparatory class.

**Additional information**

*Two Common Lab Assessments will be completed.*

*There is an additional independent work requirement over the Thanksgiving, winter, and spring breaks.*

**Honors Biology II****106****Grade 9, 10, 11, 12****Prerequisites**

*All students must have successfully completed Honors Biology I and Honors Chemistry with a B average or College Prep Biology and College Prep Chemistry with an A average.*

The Biology II class is designed to provide college bound students additional Biological Content knowledge above and beyond that learned in the Biology I class offered for students who have successfully completed Earth Science. Topics covered include animal nutrition, circulation and gas exchange, the immune system, endocrine system, nervous system and muscle/skeletal system. The class is conducted at an Honors level and students will be expected to work accordingly. Specific emphasis will be placed on terminology and knowledge that is required in the Health Sciences field, such as nursing, physical training, physicians assistant, and students planning on majoring in pre-med/pre-dental/pre-pharmacy during their undergraduate college years.

**Chemistry****107****Grade 10, 11, 12**

This is a course in basic chemistry and its applications to the personal and professional lives of people. It is designed to help students think more intelligently about current issues they will encounter that involve science and technology. Students who are going on to a trade school, two-year college, business school, non-science majors in college, or by students not going beyond high school should select this chemistry course.

**Additional information**

*One Common Lab Assessment will be completed.*

**Open Campus CP Chemistry****1081****10, 11, 12****Prerequisites**

*Successful completion of Earth Science, Biology, and Algebra I. A solid understanding of algebraic principles is required, including rearranging equations with 3 variables, order of operations, and exponents. Laboratory experiences will occur both on-campus and via simulation. On-campus time will occur twice weekly in two separate blocks during the student day. Major assessments will be administered during the on-campus time. This course will utilize a variety of online tools and applications. This course will cover such topics as: matter and its classification, chemical symbols and formulas, atomic structure, periodic classification of the elements, bonding, the gas laws and molecular theories, stoichiometry, solutions, acids, bases, and salts.*

**College Prep Chemistry****108****Grade 10, 11, 12****Prerequisites**

Students must have a minimum grade of 70% in College Prep Algebra 2

Chemistry is a physical science dealing with the structure, composition and properties of matter along with the changes matter undergoes. Atomic and molecular structure, chemical nomenclature, and reactions as well as the study of gases and solutions are studied through brief lectures, and application activities in the lab. Because of the quantitative aspects of chemistry, a strong math background is highly recommended. This semester course is designed for students who are planning to enter college and take courses in science or technology.

**Additional information**

*One Common Lab Assessment will be completed.*

**Honors Chemistry I****109****Grade 10, 11, 12****Prerequisite**

*Students must have a minimum grade of 70% in College Prep Algebra 2*

This course is similar in content to College Prep Chemistry but is more rigorous. There is exposure to the use of some special lab techniques and instrumentation not covered in College Prep Chemistry. Honors Chemistry involves more depth and breadth of content. Scientific technical writing skills applied to formal lab reports will be stressed. There are 2 mandatory Common Lab Assessments. This course requires that the student have a strong background in math and science along with a strong motivation to learn. There is a requirement for more in-depth algebra skills with less reliance on a calculator. The Honors course uses a more advanced textbook from that of the 108 level course. Students are required to maintain a detailed lab notebook. This notebook will contain all CLA and other labs as the lab notebook will prepare students to document data as required by law in industry and advanced academic settings. Students are required to demonstrate a thorough understanding of labs through various types of documentation and questions. More detail on matter, quantum chemistry, VSEPR, polyatomic ion memorization, bonding, and the five common reactions and reaction stoichiometry will be part of the curriculum. Honors exams permit fewer resources or testing aids to be used during assessments. Test questions are more in-depth and cover more details than either the 107 or 108 level courses. Successful completion of the course prepares the student for the A.P. Chemistry course or any introductory college chemistry course.

**Additional information**

*Two Common Lab Assessments will be completed.*

**Honors Chemistry II****115****Prerequisite**

*Minimum grade of "B" or higher in Honors Chemistry I or an "A" in College Prep Chemistry.*

This course is designed for students planning for a career in the science, medical or engineering fields. A solid foundation in the following Chemistry I topics are necessary for success in Chemistry II: knowledge of ions, nomenclature of inorganic compounds, stoichiometry and bonding. Chemistry II will revisit inorganic compounds, stoichiometry and bonding through a more in-depth study. In addition new topics such as, solutions, chemical kinetics and equilibrium, acids and bases, electrochemistry, organic chemistry and nuclear chemistry will be discussed in Chemistry II.

**Open Campus CP Physics****1101****Grades 11, 12****Prerequisite**

*Successful completion of Earth Science, Biology, and Algebra I. A solid understanding of algebraic principles is required, including rearranging equations with 3 variables, order of operations, and exponents.* Laboratory experiences will occur both on-campus and via simulation. On-campus time will occur twice weekly in two separate blocks during the student day. Major assessments will be administered during the on-campus time. This course will utilize a variety of online tools and applications. This course will cover such topics as: matter and its classification, chemical symbols and formulas, atomic structure, periodic classification of the elements, bonding, the gas laws and molecular theories, stoichiometry, solutions, acids, bases, and salts.

**Physics Applied Science and Technology****110****Grade 11, 12**

This one semester, one science credit course is a study of the concepts of physics as they relate to things and events that are familiar in the everyday environment. This course is recommended for students who have an interest in the "real-world" science of physics, but do not have a strong aptitude in math. This course will be taught in conjunction with the Applied Engineering Department and will include a heavy project component. Students will have both a Science and an Applied Engineering Instructor and will rotate on a semi-regular basis between the two departments during their specified block of instruction. This will give students the opportunity to work with Engineering Design Briefs and explore solutions to engineering problems as well as the science behind them.

**Additional information**

A lab fee will be charged

**College Prep Physics of Mechanics****111****Grade 11, 12**

Mechanics is a branch of physics dealing with the study of motion, energy, and their interactions. Classical mechanics include linear motion, non-linear motion (projectile and circular), forces, energy, and momentum. Due to the quantitative nature of physics, a strong math background is highly recommended. This course is designed for students who are planning to enter college and take courses in science, engineering, medicine, or technology. The one mandatory Common Lab Assessment will be completed with significantly less teacher assistance than in the 110 level course. A greater emphasis is placed on mathematical problem solving skills. For example, solving algebraic equations with more variables, solving non-linear equations that produce two answers, and solving systems of equations with multiple variables will be the sort of problems encountered above and beyond those in the 110 level course.

Additional information

*One Common Lab Assessment will be completed.*

**Honors Physics of Mechanics****112****Grade 10, 11, 12**

This course is similar in content to College Prep Physics of Mechanics but is more rigorous. Scientific technical writing skills applied to formal lab reports will be stressed. Honors Physics involves more depth and breadth of content than College Prep Physics. This course requires that the student have a strong background in math and science along with a motivation to learn. The two Common Lab Assessments will be completed with less teacher assistance than in the 111 level course. An even greater emphasis on math includes solving longer word problems with complex mathematical processes such as the quadratic formula, trigonometric properties mixed with algebraic methods, and larger systems of equations with more variables. In this course, word problems will deliberately not define variable thereby forcing students to use higher order thinking skills to identify them. Lab reports will have more components requiring lengthy discussions to critically analyze the findings. Textbook readings will be done autonomously.

**Additional information**

*Two Common Lab Assessments will be completed.*

**College Prep Physical Oceanography and Astronomy****116****Grade 11, 12**

This course deals with physical and geological characteristics of the world's oceans. Animal behavior of marine life and coastal dynamics is covered. Emphasis is placed on navigation and movements of the oceans. Laboratory and field studies include mapping, data collection and analysis. Each class has an opportunity to take introduction to scuba lessons. Astronomy is designed to open the mind as well as the eyes by hands-on observation and thought provoking discussion on the solar system through the universe.

**Ecology of the Susquehanna River and Chesapeake Bay Environment  
& Animal Behavior****117****Grade 10, 11, 12**

This course consists of two parts. One part investigates aquatic ecosystems located in the Chesapeake Bay watershed. Students study the organisms found in the fresh and saltwater habitats within our region as well as the effects that agriculture, technology and lifestyle have on the quality of the environment. Emphasis is placed on fresh water and marine biology, fieldwork, independent research and project work. The other part of the course is about Animal Behavior. Students will learn how ethologists work, study classic experiments, and gain an understanding about innate and learned behaviors. Participants will design, conduct and analyze experiments to discern specific behaviors of animals.

**College Prep Ecology of the Susquehanna River and Chesapeake Bay Environment  
& Animal Behavior****118****Grade 10, 11, 12**

This course consists of two parts. One part investigates aquatic ecosystems located in the Chesapeake Bay watershed. Students study the organisms found in the fresh and saltwater habitats within our region as well as the effects that agriculture, technology and lifestyle have on the quality of the environment. Emphasis is placed on fresh water and marine biology, fieldwork, independent research and project work. The other part of the course is about Animal Behavior. Students will learn how ethologists work, study classic experiments, and gain an understanding about innate and learned behaviors. Participants will design, conduct and analyze experiments to discern specific behaviors of animals.

**Forensic Science****098****Grade 11, 12**

The Forensic Science course is designed for students with a curiosity as to how science helps the law. Forensic Science is a multidisciplinary class, pulling in skills from Life Sciences, Chemistry, Physics, Technology, Math, Earth Science, Language Arts and Social Studies. Students will participate in hands on-activities, involved in the process of solving crimes and mysteries with the use of science skills. This semester course is recommended for those students who are going to a trade school, two year college, business school, non- science majors in college or by students not going beyond high school education. This course requires that the students have a strong work ethic, patience to solve problems and puzzles, and a high motivation to learn.

**A.P. Biology/Technology and Research****119****Grade 11, 12****Prerequisite**

*Minimum grade of an A in College Prep Biology or minimum grade of a B in Honors Biology, College Prep or Honors Chemistry, College Prep or Honors Physics. Physics may be taken in the same year as this course, as long as all other prerequisites are met.*

The AP Biology course is designed to be the equivalent of a two-semester college introductory biology course usually taken by biology majors during their first year. AP Biology includes those topics regularly covered in a college biology course for majors. It aims to provide student with the conceptual framework, factual knowledge, and analytical skills necessary to deal critically with the rapidly changing science of biology.

Students who complete this class will earn two weighted credits. In order to earn AP weighted credit, students must take the Advanced Placement examination in May.

**Additional information**

*Summer Work Required. Two Common Lab Assessments will be completed. A lab fee will be charged to replace expendable lab supplies.*

**A.P. Chemistry/Technology and Research****120****Grade 11, 12****Prerequisite**

*Minimum grade of "A" in College Prep or Honors Biology, College Prep Chemistry or minimum grade of "A" in Honors Chemistry, College Prep or Honors Physics (Physics may be taken in the same year as this course assuming all other prerequisites are met.), minimum grade of "B" in Honors Math Analysis, or minimum grade of "B" College Prep Precalculus*

Advanced Placement Chemistry covers the equivalent of a full year college-level course. It is designed to allow students further study in such topics as the property-structure relationships of substances, gases, stoichiometry and solutions as well as delving into the more dynamic studies of thermodynamics, chemical equilibrium and kinetics, as well as electrochemistry and organic chemistry. The full year time frame allows more time for the application and exploration of new concepts in the laboratory, as well as time to develop proper lab techniques including data collection, analysis and presentation in formal reports. Technical writing skills applied to formal lab reports will be stressed. Students who complete this class will earn two weighted credits. In order to earn AP weighted credit, students must take the Advanced Placement examination in May.

**Additional information**

*Summer Work Required. Two Common Lab Assessments will be completed. A lab fee will be charged to replace expendable lab supplies.*



**A.P. Physics****097****Grade 11, 12****Prerequisite**

*Minimum grade of “B” in College Prep or Honors Earth Science. Minimum grade of “B” in College Prep or Honors Biology. Minimum grade of “B” Honors Math Analysis or CP Precalculus. Concurrent enrollment in Honors Calculus highly recommended.*

Advanced Placement Physics is the equivalent of a full year college-level physics course. This course provides a systematic approach to the foremost principles of physics and emphasizes the development of problem solving skills using algebra, trigonometry, and basic calculus principles. This full-year course is designed to thoroughly explore and investigate applications of new principles in a laboratory setting to enhance techniques including focus, data collection, analysis, and presentation in formal reports. The content will include Newtonian Mechanics; Fluid and Thermal Mechanics; Electricity and Magnetism; Waves and Optics; and Atomic and Nuclear Physics. Students who complete this class will earn two weighted credits. In order to earn AP weighted credit, students must take the Advanced Placement examination in May.

**Additional information**

*Summer Work Required. Two Common Lab Assessments will be completed.*

**Open Campus Honors Astronomy****1181****Grade 11, 12****Prerequisites**

*Minimum grade of a B in Algebra 1 and Algebra 2. A solid understanding of basic algebraic principles is required specifically including, but not limited to, rearranging equations with 3 variables, order of operations, exponents, and the use of scientific notation. Minimum grade of a B in College Prep or Honors Earth Science and Biology.*

This challenging, one semester, online course is designed solely for the highly motivated, independent learner who desires to know more about the subject in the company of like-minded individuals. Students will delve into more than just the mechanical and observational aspects of astronomy. The units of study are compilations of the works of professional astronomers whose published works are intended to be contemporary and insightful to the student. The class begins with qualitative terms (concepts) and moves toward the more quantitative aspect of astronomy (mathematical proofs). Students MUST be proactive, involved, and engaged in their learning. Both text and video communication with the instructor and other students, questioning, a willingness to volunteer answers, collaboration, and the sharing of thoughts and ideas is vital to success. Students will seek connections: connections between the past and present, connections between astronomers, connections between concepts, ideas, and innovations, and connections between Assignments. This course will utilize a variety of web-based tools and applications. Laboratory experiences will occur solely online via activities and simulations. There may be limited on-campus time, however, some independent nighttime activities/observations may be required. Major assessments will be administered and implemented on-line.

## **AGRICULTURE EDUCATION COURSE DESCRIPTIONS**

Student placement in higher-level Agriculture classes will be based on the following criteria, unless specifically stated in the course description:

- Successful completion of an introductory class or previous level class with a minimum grade of a B.
- Students who earn a C may place in a higher level with teacher recommendation.
- Determining grade will not include grading categories that do not reflect assessment, such as homework or extra credit.
- Performance on local assessments, such as practice, midterms and final exams.
- Satisfactory completion of hands-on class activities.
- Teacher recommendation

Students who elect courses in the Agriculture Education Department are prepared for a future in employment immediately after high school and/or post-secondary education programs. Agriculture teachers are very instrumental in helping students with job placement and researching scholarship opportunities.

Students who are enrolled in one Agriculture Education course throughout the school year are invited to be involved in the Manor FFA Chapter. Agriculture Science at Penn Manor prepares students for careers by teaching Agriculture Science principles, small and large animal health and management, food science, plant science, leadership, problem solving, and communication skills. If students should have any questions about the courses that best match their career plans, they should see any Agriculture Education teacher.

### **AGRICULTURE SCIENCE**

#### **Introduction to Agriculture, Food and Natural Resources (Ag Science I)**

**251**

**Grade 9, 10, 11**

The first class in the series of agriculture science classes, the major purpose of the *Introduction to Agriculture, Food, and Natural Resources* (AFNR) course is to introduce students to the world of agriculture, and the pathways they may pursue in that field. Students participating in the *Introduction to Agriculture, Food, and Natural Resources* course will experience exciting “hands-on” activities, projects, and problems. Student experiences will involve the study of communication, the science of agriculture, plants, animals, natural resources, and agricultural technology. While surveying the opportunities available in agriculture and natural resources, students will learn to solve problems, conduct research, analyze data, work in teams, and take responsibility for their work, actions, and learning. In addition, students will understand specific connections between their lessons and Supervised Agricultural Experience and FFA components that are important for the development of an informed agricultural education student. Students will investigate, experiment, and learn about documenting a project, solving problems, and communicating their solutions to their peers and members of the professional community.

#### **Additional information**

*Lab Fee: \$10*

**Agriculture Science II****252****Grade 10, 11, 12****Prerequisite**

*A minimum grade of a B in Intro to AFNR (Ag Science I) or department approval.*

Agriculture Science II is designed for students with plans or interest in some phase of the animal industry or food science industries including veterinarian, food science and communications. Areas to be covered include; large and small animal care and management, computerized record keeping, business, animal health and disease control. Units covered in the areas of food science are careers, methods of food production and handling, safety, and management. Units on careers, leadership, communication skills, record keeping, and FFA are included. Students will keep a logbook of daily class activities and skills learned.

**Additional information**

*Lab Fee - \$10*

**Agriculture Science III****253****Grade 11, 12****Prerequisite**

*A minimum grade of a B in Agriculture Science II or department approval. An active SAE program is vital to the successful completion of this course.*

This class goes in depth on the study of agronomy (study of crops and soils) and related disciplines. Students will study IPM (Integrated Pest Management) and earn their private pesticide applicators license. Land use and soil conservation are major areas covered in this class. For the animal agriculturalist, animal feeds and nutrition are studied to build on practices learned in Agriculture Science II. Students will be involved with FFA activities and continue to build on valuable leadership skills learned in previous agriculture science classes, including the class requirement of the completion of the Red Rose FFA Degree Application. Students will keep a logbook of daily class activities and skills learned.

**Additional information**

*Lab Fee - \$10*

**Agriculture Science IV****254****Grade 12****Prerequisite**

*A minimum grade of a B in Agriculture Science III or department approval. An active SAE program is vital to the successful completion of this course.*

Agriculture Science IV is offered to advanced agriculture science students who are interested in agriculture careers and advanced agriculture science. Students explore various business opportunities by developing their own business. Exploratory on-the-job agribusiness experience is given through released school time. Units on careers, leadership, communication skills, record keeping and FFA are included. Students will be involved with FFA activities and continue to build on valuable leadership skills learned in previous agriculture science classes, including the class requirement of the completion of the Keystone FFA Degree Application. Students will keep a logbook of daily class activities and skills learned.

**Additional information**

*Lab fee - \$10*

**Agribusiness 2014****271****Grade 10, 11, 12**

Agribusiness is offered to agriculture students who are considering operating their own business. This class will prepare you with the basic principles required to plan, start, and operate your own business. Units covered include economics, business types, managing a small business, basic computer programs used in business, recordkeeping, and communication. FFA is an integral part of all agriculture classes and will be included in the course of study. Students in agribusiness manage the Manor FFA fruit sale as an example of small business. Students may elect Agribusiness more than once with a minimum grade of "B" in prior Agribusiness classes AND department approval. The curriculum will consist of advanced study of business principles. Students will keep a logbook of daily class activities and skills learned.

**College in the High School - Agribusiness 2014****265****Grade 11, 12**

This class will be designed for junior and senior agriculture students who have an interest in Agribusiness. This class will be taught as part of the College in the High School program through Harrisburg Area Community College. The textbook for the course will be Introduction to Agribusiness by Ricketts and Rawlins. Other contemporary resources will also be used. Students will complete a HACC application and pay the college application fee of \$85. There will be no tuition cost to the student. Units on leadership, communication skills, Supervised Agriculture Experience (SAE), record keeping and FFA are included.

**Floriculture 2014****273****Grade 9, 10, 11, 12**

Floriculture is a hands-on course open to anyone who has an interest in the horticulture industry. Students will learn skills essential to be successful in careers involving greenhouse production, landscape design, plant propagation, seeding, fertilizing, and general care of plants and flowers, lawn maintenance, and business management. Students will learn the basics of floral design. Students will be able to take home many of the plants and designs that they have worked with. Units on careers, leadership, communication skills, record keeping and FFA are included. Students will keep a logbook of daily class activities and skills learned. Students may elect this course more than once to further their skills in the floriculture industry with a minimum grade of "B" in prior Floriculture classes AND department approval.

**Additional information***Lab fee - \$20***Horticulture in the Greenhouse 2014****278****Grade 10, 11, 12**

This class is both a practical hands-on and in-depth science course. Students will learn the science of plant growth, function, and reproduction as well as greenhouse management practices involving plant environmental control, plant nutrition, growing media, and pest control. Students will be responsible for growing a crop to sell in the greenhouse. Students will keep a logbook of daily class activities and skills learned. Units on leadership, communication skills, Supervised Agriculture Experience (SAE), record keeping and FFA are included.

**Additional information***Lab fee - \$10*

**Concepts of Biotechnology****279****Grade 10, 11, 12****Prerequisite***Minimum Grade of a C in Biology*

This course projects concepts in biotechnology as a tool for the enhancement of agricultural science. As populations explode into a finite world and land mass, agriculture must uncover new and improved ways to meet these growing demands for efficiency. Studies in this course will include genetic engineering, recombinant DNA technology, embryo transfer, tissue culture and other related topics from several cutting edge frontiers. This course will focus on both theory and hands-on applications to help students realize the direction agriculture is demanding from its many constituents. Units on leadership, communication skills, Supervised Agriculture Experience (SAE), record keeping and FFA are included. Students will keep a logbook of daily class activities and skills learned. Safety glasses are required.

**Additional information***This course may count as a science credit for any student.***CP Veterinary Science****266****Grade 11, 12****Prerequisite***Minimum Grade of a B in Biology*

This course is designed to give students a foundation in the basic knowledge needed to be successful in a veterinary science career. Areas of study include animal systems including: animal tissues, musculoskeletal, digestive, reproductive, and respiratory. Students will be expected to learn veterinary terminology in addition to epidemiology of disease, zoonotic diagnosis and veterinary technician skills. Basic veterinary science practices will be studied, including: cause, diagnosis, treatments, and prevention of animal health problems. Clinical, surgical, and office management practices will be studied in addition to nutrition, sanitation, and terminology related to the industry. Units on leadership, communication skills, Supervised Agriculture Experience (SAE), record keeping and FFA are included. Computers will be used; calculators are needed. It is recommended students serious in pursuing veterinary medicine; take at least Intro To AFNR (formally Ag Science 1) and Ag Science 2 prior to this course.

**Additional information:***This course may count as a science credit for any student.**Lab Fee - \$15***Honors Veterinary Science****272****Grades 11, 12****Prerequisites***Minimum Grade of an A in CP Biology and CP Veterinary Science*

This course is designed for students who are planning to enter the veterinary field and who want to further their study from CP Veterinary Science. Students will continue their study from CP Veterinary Science by focusing on the circulatory, renal, nervous, endocrine and immune systems. Students earning an honors credit will be expected to perform all the steps in designing and performing an experiment/study and then writing a lab report summarizing the information. Students will have to research a veterinary topic of their choice and present their findings through paper and poster. Students will be required to complete a PA FFA Research Project book. Units on leadership, communication skills, Supervised Agriculture Experience (SAE), record keeping and FFA are included. Computers will be used; calculators are needed.

**Additional information***This course may count as a science credit for any student.**Lab Fee - \$15*

**Wildlife and Natural Resources Management****267****Grade 10, 11, 12**

This course will be an elective course offered by the Agriculture Department. This course will focus on wildlife, fisheries, and natural resources management. Natural resources include forests, water, air, fossil fuels, and soil. The importance and methods of sound management of our natural resources will be studied along with species and habitat management. Students will be in the field regularly for hands-on studies. SAE projects in wildlife and conservation will be required. Units on leadership, communication skills, Supervised Agriculture Experience, record keeping and FFA are included. Computers will be used; calculators are needed.

**Agriculture Work Study/Senior Supervised Agriculture Experience (SAE)****274****Grade 12****Prerequisite***Department approval*

The Agriculture Work Study program is for seniors who are planning for a career in the field of agriculture. Through the Agriculture Work Study program students will spend time in their chosen field of work. Students enrolled in the fourth year of Agriculture courses are eligible for this program and must have department approval. Students must have maintained a "B" or better grade in all agriculture education classes. Students interested in the Ag Work Study course will meet with the teacher prior to electing this course to obtain more information. Weekly time sheets will be submitted. This course may be selected both semesters, a grade of A is required in the fall semester in order to continue in the spring semester. To be eligible for this opportunity, students must be enrolled in one other course in the Agriculture department during the current school year.

**Additional information***To enroll in this course, the senior project will be completed by June 1 of their junior year.***Supervised Agricultural Experience 2014****275****Grade 9, 10, 11, 12****Prerequisite***Department approval*

Students will have the opportunity to receive one credit per year for work done outside of school in agribusiness or agri-production areas. A minimum of 120 hours is required to meet the basic time requirement and a department approved SAE record book will be kept for the SAE project. To be eligible for this opportunity, students must be enrolled in one other course in the Agriculture department during the current school year.

**Additional information***This course will be assigned to a student's schedule by the Agriculture teachers.***Agricultural Record Keeping Systems****276****Grade 10, 11, 12****Prerequisite***Department approval*

Students will be exposed to a variety of record keeping systems and their analysis to allow them to more accurately evaluate their potential both on a personal and business level. In a global agricultural experience, students will have to be able to identify those key components regardless of where they may be found, and interact with that information in such a way as to be able to identify problems, provide solutions, and maintain a stable economic position. The objective of this course is to provide students with higher learning skills in that they will be required to identify, analyze and modify the enterprise based on that analysis.

**AGRICULTURE MECHANICS****Introduction to Agriculture Mechanics****261****Grade 9, 10, 11**

This course will provide an overview of career possibilities and skills required in agriculture mechanics through technical theory and hands on training. Introduction to Agriculture Mechanics is the foundation for all other Agriculture Mechanics courses. Units include: safety, introduction to small engine maintenance and repair, basic electrical wiring, plumbing, woodworking, arc welding and basic metalworking. Units on career exploration, leadership, communication skills, record keeping and FFA are included in this introductory agriculture class. Blue jeans and work boots are recommended and a daily logbook will be kept recording skills mastered.

**Additional information***Lab fee - \$15**Safety glasses will be provided from the lab fee.***Welding I****262****Grade 10, 11, 12****Prerequisite***Minimum grade of a B in Introduction to Agriculture Mechanics*

This course lays the foundation for a bright future in welding and metalworking building on skills learned in Introduction to Agriculture Mechanics. Units include: safety, tools, equipment, weld symbols, project plans, welding math, shielded metal arc welding, gas metal arc welding, and oxyacetylene. The focus of the metalworking will be on flat welds, testing welds, and basic cuts. Projects incorporating metalworking skills will be an important part of the coursework. Units on career exploration, leadership, communication skills, record keeping and FFA are included in this agriculture class..

**Additional information***Leather work boots, long cotton pants (blue jeans) and safety glasses are needed**Lab fee - \$20***Welding II****263****Grade 10, 11, 12****Prerequisite***Minimum grade of a B in Welding I*

This course prepares students for a bright future in welding and metalworking, building on skills learned in Welding I. The focus of the metalworking will be on out-of-position welds, pipe welds, nonferrous metals, TIG welding, metal bending, and other special topics. Class fabrication projects will incorporate the use of reading plans and manufacturing environment. Units on career exploration, leadership, communication skills, record keeping and FFA are included in this agriculture class.

**Additional information***Leather work boots, long cotton pants (blue jeans) and safety glasses are needed**Lab fee - \$20*

**Engines I****264****Grade 10, 11, 12****Prerequisite***Minimum grade of a B in Introduction to Agriculture Mechanics*

This foundational course prepares students for careers with engines. The course will focus on single cylinder 4-cycle and 2-cycle engine theory, maintenance, troubleshooting, and repair. Students will use their own single cylinder 4-cycle engine, like an old lawn mower and single cylinder 2-cycle engine, like an old weed eater. Students must pay for all parts ordered. Units on career exploration, leadership, communication skills, record keeping and FFA are included in this agriculture class.

**Additional information***Leather work boots, long cotton pants (blue jeans) and safety glasses are needed**Lab fee - \$20***Engines II****268****Grade 10, 11, 12****Prerequisite***Minimum grade of a B in Engines I*

This advanced engines course will focus on multi cylinder gasoline and diesel engine theory, maintenance, troubleshooting, electrical systems and repair. This course will prepare students to become equipment technicians through the Briggs and Stratton and Stihl technical certification. Students will have the opportunity to repair/overhaul their own multi cylinder engine during the laboratory time. Units on career exploration, leadership, communication skills, record keeping and FFA are included in this agriculture class.

**Additional information***Leather work boots, long cotton pants (blue jeans) and safety glasses are needed**Lab fee - \$20***Construction****269****Grade 10, 11, 12****Prerequisite***Minimum grade of a B in Introduction to Agriculture Mechanics*

This course will prepare students for careers in the construction industry. Units will include: building layout, surveying, framing, rafter layout, masonry, pavers, roofing, electrical, and plumbing. Basic and advanced construction projects will be an important part of the coursework. Units on career exploration, leadership, communication skills, record keeping and FFA are included in this agriculture class.

**Additional information***Leather work boots, long cotton pants (blue jeans) and safety glasses are needed**Lab fee - \$20*



**Agriculture Equipment****270****Grade 12****Offered in odd number years****Prerequisite***Minimum grade of a B in Engines I and Welding I*

This course is a culminating experience for students completing Engines I and Welding I. Completion of Intro to AFNR (Ag Science 1) is recommended. Students will use metalworking and engines skills and make operational and management decisions with agricultural equipment. The focus will be on current agriculture equipment, uses, technology and operation. Students will complete assigned and independent projects. Units on career exploration, leadership, communication skills, record keeping and FFA are included in this agriculture class.

**Additional information***Leather work boots, long cotton pants (blue jeans) and safety glasses are needed**Lab fee - \$20*

<p align="center"><b>APPLIED ENGINEERING AND TECHNOLOGY COURSE OFFERINGS AND SEQUENCES</b></p>
--

The flowchart below lists the standard progression of courses within the Applied Engineering and Technology Department. Students should review the course descriptions to determine which courses are right for their goals, grade level, and grades in previous courses. Students should make sure they meet the prerequisites, listed in the course descriptions, for the courses they want and that they obtain any teacher recommendations needed.

Student placement in higher-level Applied Engineering and Technology classes will be based on the following criteria, unless specifically stated in the course description.

- Successful completion of an introductory class or previous level class with a grade of 70% or higher.
- Determining grade will not include grading categories that do not reflect assessment, such as homework or extra credit.
- Performance on local assessment, such as midterms and final exams.
- Participation in class activities
- Teacher recommendation

Students who are interested in Applied Science - Physics and Technology should request this course through the Science Department.

<b>GRADE 9</b>
9 <sup>th</sup> Grade Exploring Technology
Students completing 9 <sup>th</sup> Grade Exploring Technology in the 1 <sup>st</sup> semester may take 1 <sup>st</sup> level courses marked with a "*" below in the 2 <sup>nd</sup> semester.
<b>GRADE 10, 11, &amp; 12</b>
Computer Design-Drafting I*
Engineering & Model Building
3D Architectural Design & Model Building
Materials Processing*
Cabinetry I*
Cabinetry II
Computer Animation I*
Electronics I*
Electronics II & Robotics Technology
<b>GRADE 11, &amp; 12</b>
Applied Science – Physics and Technology

\* Indicates course that may be taken by Grade 9 students after completion of 9<sup>th</sup> Grade Exploring Technology

## APPLIED ENGINEERING AND TECHNOLOGY COURSE DESCRIPTIONS

Student enrollment in Applied Engineering and Technology Education classes will be based on the following criteria, unless specifically stated in the course description:

- Successful completion of an introductory class or previous level class with a grade of 70%.
- Determining grade will not include grading categories that do not reflect assessment, such as homework or extra credit.
- Performance on local assessments, such as midterms, performance evaluations and final exams.
- Participation in class activities
- Teacher recommendation

### **9<sup>th</sup> Grade Exploring Technology**

**710**

#### **Grade 9**

Technology is everywhere! In this survey course, students explore Design Drafting (AutoCAD and AutoCAD Inventor), Electronics, Graphic Arts (computer graphics), and Materials Production (woodworking). In one semester students will experience four different high school teachers and their specialized courses. As students rotate through the sections of the 9<sup>th</sup> Grade Exploring Technology course, they will create a wide variety of projects and develop a broad technological knowledge base. This is **STEM** focused course.

#### **Additional information**

*A lab fee will be charged*

*Grade 9 students interested in taking Applied Technology courses other than the Exploring Technology must obtain prior approval from the course instructor. Students **completing** this course in the Fall may take a 1<sup>st</sup> level Applied Technology course in the Spring.*

### **Physics Applied Science and Technology**

**110**

#### **Grade 11, 12**

This one semester, one science credit course is a study of the concepts of physics as they relate to things and events that are familiar in the everyday environment. This course is recommended for students who have an interest in the "real-world" science of physics, but do not have a strong aptitude in math. This course will be taught in conjunction with the Applied Engineering Department and will include a heavy project component. Students will have both a Science and an Applied Engineering Instructor and will rotate on a semi-regular basis between the two departments during their specified block of instruction. This will give students the opportunity to work with Engineering Design Briefs and explore solutions to engineering problems as well as the science behind them.

#### **Additional information**

A lab fee will be charged

**DESIGN, DRAFTING, ENGINEERING, AND ARCHITECTURE****Design-Drafting I****711****Grades 10, 11, 12**

Design-Drafting I is an introductory course in visual communications in which students individually and in small groups will employ the latest version of AutoCAD software to solve design/drafting problems by producing drawings as well as models to test and analyze their problem solving abilities. An introduction to engineering design and drawing, product design and 3D solid modeling will also take place during the course. This course is recommended for students planning to pursue Engineering as a possible career.

**Additional information***A lab fee will be charged***Engineering and Model Building****715****Grades 10, 11, 12**

In this pre-engineering course, students will be introduced to industrial design. Students will utilize the latest version of AutoCAD software, a powerful 3D solid modeling program, to create assembly drawings of their model. Among the projects undertaken will be the assembly of the model. In addition to the model, each student will complete extensive research for the model, design and produce a logo, and a design scenario pertaining to the model. In addition to AutoCAD, Adobe Creative Suite and other software will be employed to help the students achieve their goals. This course is recommended for students planning to pursue Engineering as a possible career.

**Additional information***A lab fee will be charged***3D Architectural Design and Model Building****718****Grades 10, 11, 12**

The architectural drafting course is designed to provide an opportunity for students to design and produce a model. 3-D Computer generated renderings and walk-thru's will be created to produce a scaled model of the house. As in the other Design/Drafting courses, the latest version of AutoCAD Software will be used to produce the drawings of the house. The airbrush, colored pencils and water colors may be employed to render a pictorial drawing of the house as well as the model itself. This course is recommended for students planning to Architecture as a possible career.

**Additional information***A lab fee will be charged*

**WOODWORKING AND MATERIALS PROCESSING****Materials Processing****722****Grades: 10, 11, 12**

This class is an introduction to materials processing. The emphasis is placed on the processes by which a product (or project) is developed. Materials utilized may include wood, plastic, and ceramic materials. Students generate required and elected projects while employing a variety of materials processing techniques.

**Additional information**

*A lab fee will be charged*

**Cabinetry I****727****Grade 10, 11, 12**

This course allows students to research topics and projects of special interest in the field of cabinetry. Students may select topics and projects that utilize and build upon skills and concepts gained in the Materials Processing class. Emphasis will be placed on introductory cabinetry projects.

**Additional information**

*A lab fee will be charged*

**Cabinetry II****728****Grade 10, 11, 12****Prerequisite**

*Minimum grade of a C in Cabinetry I*

This course is designed to allow students to individually research advanced topics and complex projects in the field of cabinetry. Students will select topics and projects that utilize and expand upon acquired skills and concepts from prior materials experiences. Emphasis will be placed on advanced, traditional cabinetry projects.

**Additional information**

*A lab fee will be charged*

**ELECTRONICS AND ELECTRICITY****Electronics I****751****Grade 10, 11, 12**

This course of electricity and electronics is designed to acquaint the student with many basic electrical-electronic principles and systems. Students design, produce and evaluate individual/group electronic projects. Included in this course are the practical applications of electrical - electron theory, interactive computer controlled test-lab equipment, troubleshooting, schematic reading and building a variety of electronic projects.

**Additional information**

*A lab fee will be charged*

**Electronics II and Robotics Technology****752****Grade 10, 11, 12****Prerequisite**

*Minimum grade of a C in Electronics I*

This course of semiconductor electronic devices is designed to acquaint the student with many semiconductor components, principles and systems. This course allows students to design, produce and evaluate individual/group electronic projects. Included in this course are the practical applications of semiconductor theory, power supplies, transistors, basic amplifiers, power control devices, interactive computer controlled test-lab equipment and building a variety of electronic projects. . Activities from Carnegie Mellon's curriculum concerning Robotics Engineering will be covered. Students will use Lego Robots as well as similar engineering kits and will learn the programming of robotic motors, controls, and sensors.

**Additional information**

*A lab fee will be charged*

**ANIMATION and VIDEO GAME DESIGN****Computer Animation****749****Grade 10, 11, 12**

This course is designed as an introductory course in Computer Animation using Adobe's Flash 8 Professional. Students will be introduced to the principals of 2D "Flash" Cartooning! Students will also learn how this program is used to enhance multimedia web page design. Projects will include the creation of cartoon characters, animated greeting cards and an animated music video! Students interested in this class may also wish to take Fundamentals of Web Design and/or Digital Photography

**Additional information**

*A lab fee will be charged*

**Open Campus PA – CP Introduction to Video Game Design  
7581****Grade 11, 12****Prerequisite***Students must have successfully completed Computer Animation I.*

This online course provides you with an opportunity for you take what you know about playing video games to the next level and create your own. Video Game Design is an introductory course that allows students to learn how to design and create basic video games using Games Factory 2 and Scratch software. A background in design will be helpful as students learn how to incorporate multiple applications for a common outcome. The curriculum uses science, technology, engineering, and math (STEM) as a foundation. Throughout the course, students will apply information learned from various disciplines and strength core basics.

## ART COURSE DESCRIPTIONS

Student placement in higher level art classes will be based on the following criteria, unless specifically stated in the course description:

- Successful completion of an introductory class or previous level class with a grade of 70% or higher.
- Determining grade will not include grading categories that do not reflect assessment, such as homework or extra credit.
- Earning below a 70% in any art class will make a student ineligible for an art class in the next semester.
- Performance on local assessments, such as midterms and final exams.
- Participation in class activities
- Teacher recommendation

### **Fundamentals of Design**

**311**

**Grade 9, 10, 11, 12**

This is a foundation art class. The principles and elements of art and design will be addressed through various art assignments. Students will develop a sense of design as well as an increased ability in drawing, painting, sculpture, and crafts. This class will give you an opportunity to learn art-making techniques by exploring artistic traditions and materials.

#### **Additional information**

*A lab fee will be charged.*

*Students who already completed Art I should not register for this course*

### **Drawing & Painting I**

**312**

**10, 11, 12**

Students will learn about the basic principles of art and design and how they are used to create two-dimensional work. Students will experiment with many techniques and media such as graphite, charcoal, pen & ink, colored pencil, pastels, acrylic painting, watercolor, and mixed media. A number of approaches to drawing and painting will be covered with a focus on drawing from observation.

#### **Additional information**

*A lab fee will be charged.*

*Students who already completed Drawing I should not register for this course*

*Students in Grade 9 may register for this course with permission from their Fundamentals of Design instructor*



**Drawing & Painting II****313****Grade 10, 11, 12****Prerequisite***Minimum grade of B in Drawing & Painting I required.*

This course is for students who successfully completed Drawing & Painting I, and wish to further their knowledge of two-dimensional techniques and materials. Approaches to drawing and painting will be explored with a focus on working from observation. This class is recommended for anyone wishing to develop a portfolio or enroll in AP Studio Art.

**Additional information***A lab fee will be charged.**Students who already completed Drawing II should not register for this course***Trends in Ceramics and Crafts****320****Grade 9, 10, 11, 12**

The use of ceramics and other crafts has been around since the beginning of history, but their roles in artistic expression went through significant changes in the last century. In this class you will learn about current trends in the world of crafts. Through a variety of hand building experiences you will learn more about yourself and the artists and movements that changed the way we think about clay and crafts.

**Additional information***A lab fee will be charged.***Traditions Ceramic and Crafts****321****Grade 9, 10, 11, 12**

Ceramics and crafts have played an important role in history and in multiple cultural traditions. In this class you will learn about the rich history of ceramics and other crafts. Through a variety of hand building projects, you will learn more about your own abilities in clay and the significant traditions of both clay and other crafts.

**Additional information***A lab fee will be charged.***Jewelry & Metals****323****Grade 10, 11, 12**

Art Jewelry is an expressive, inventive art form. Used as personal adornment, both symbolic and decorative, it transcends time and fashion. This course provides you with the technical information for making your own jewelry or small metal objects. You will learn how to design, work with materials, and fabricate your pieces.

**Additional information***A lab fee will be charged.**Students wishing to continue in Jewelry & Metals may do so as an independent study course with instructor's permission.*

**Photography I****331****Grade 11, 12****Prerequisite***Minimum grade of a B in previous art course required.*

Photography is an essential means of communication from objective documentation to fantasy. This is a beginning level course in black and white photography with an emphasis on the principles of visual design. Students will be exposed to working with traditional film photography. Students will learn the basics of film developing, printing, and study the history of photographic image making. Students will be expected to complete work outside of the school setting.

**Additional information***A lab fee will be charged.**Students in Grade 10 may register for this course with permission from their Fundamentals of Design or former Art I instructor.***Photography II****332****Grade 11, 12****Prerequisite***Minimum grade of a B in Photography I required.*

This course is designed for the serious photography student. Advanced techniques in black and white photography and critical problem solving will be covered. Students will also be exposed to studio photography and lighting skills. Students will continue to explore the need for fine art photography in a digital world and will incorporate the use of digital editing techniques with both film and digital images. Students will be expected to complete work outside of the school setting.

**Additional information***A lab fee will be charged.***Yearbook/Creative Publications Design****345****Grade 9, 10, 11, 12****Prerequisite***Yearbook adviser approval after formal application.*

This course is open to students interested in the fast-paced field of Yearbook publications. Students will integrate all yearbook production elements from copy, photography, page layout, and business to produce the TRUMPETER, Penn Manor High School's yearbook. Course work will include digital photography, creative writing, page design and layout, typography design tools, and interview techniques. Students are required to sell one page of community business ads. Computers will be used in all phases of the class focusing on Adobe CS2, InDesign, Photoshop, YearTech 2007, digital photography, and word processing.

**Additional information***Students must apply in February and win adviser and editor invitation in order to register for this class.*

**Honors Yearbook/Honors Creative Publications Design****346****Grade 11, 12**

This course is reserved for those yearbook staff members who have successfully completed two semesters of Creative Publications Design and have been selected to serve in the leadership positions of editor, or section editor. Classes beyond the first two semesters will be considered for honors status and application for an editor position. Requirements include but are not limited to:

Having completed two full mini-16 and graphics notebook projects with ready-to-use ideas for the coming year

Completing summer work of full design of the student life, sports, academic, people, community, and organizations sections for the up coming year's Trumpeter

Effectively introducing and then utilizing staff concepts and designs and transferring those ideas to Adobe InDesign formats

Selecting fonts, head lines, common element/copy styles, and caption styles and making these computer ready for team's work on the first day of school

Developing completed copy ideas for every spread in the book

Completing all specialty spreads (Superlatives, elementary, class specials) on InDesign

Completing all underclass mug common element designs on Adobe InDesign

Attending a summer yearbook workshop and completing the spring supplement before July 1

Developing a workable theme complete with cover, divider, and opening layouts

Develop leadership strategies to meet deadlines for team members, spreads, and proofs

Staying after school to meet deadlines.

**Commercial Art****361****Grade 9, 10, 11, 12**

Commercial Art applies artistic principles to a variety of fields. With the impact of technology in the design field, designers are required to have both artistic and computer skills. This class will offer you both. The topics covered in this class include layout for posters, books and magazines, illustration techniques, typography, product design, and advertising. PhotoShop digital photography work will also be applied. The class includes both hand illustration design work and computer design skills. Students focus on the use of computer software programs commonly used by commercial artists, like Adobe CS5Photoshop In Design and Illustrator

**Additional information**

*A lab fee will be charged.*

*No prior knowledge of software programs is required*

**A.P Studio Art (Drawing Portfolio)****391****Grade 11, 12****Prerequisite**

*Minimum grade of a B in three previous art classes, portfolio review, approval from AP Studio Art instructor, and successful completion of summer artwork and reading.*

The Advanced Placement Drawing class is a yearlong, studio-based art class that enables highly motivated students to perform at the college level while still in high school. This advanced class is for juniors and seniors with a real desire to learn about their potential in the field of art. This is a demanding class that requires discipline and commitment to your work beyond the scheduled class time.

The class will consist of studio projects with an emphasis on individual direction and excellence. Drawing can be defined and interpreted in numerous ways, and the work you create may span virtually all two-dimensional art media, techniques, and concepts. Grading will be based on the successful completion of a well-developed portfolio. To receive AP weighted credit, students must submit a portfolio.

**Additional information**

*A lab fee will be charged.*

**Open Campus AP Art****3911****Grade 12****.5 Credit**

Designed for the independent and highly motivated learner, this course taps the strengths of each participant as they endeavor to create a portfolio of two-dimensional artwork rooted in the Advanced Placement College Board Portfolio Guidelines for the 2-D Design Concentration Section. Through the media of their choice, students will strive to deeply investigate and explore a specific visual idea. Image making will grow out of personal interests and a thorough investigation of the work of past and present artists. Students will be expected to commit serious time and effort to growing their understandings and skills through their individual practice and engagement in their investigative process.

**Additional information**

*All supplies will be the sole responsibility of the student as well as a personal studio space for executing work.*

**Open Campus AP Art: Concentration Portfolio****3911****Grade 11, 12****.5 credit**

Designed for the independent and highly motivated learner, this course taps the strengths of each participant as they endeavor to create a portfolio of two-dimensional artwork rooted in the Advanced Placement College Board Portfolio Guidelines for the 2-D Design Concentration Section. Through the media of their choice, students will strive to deeply investigate and explore a specific visual idea. Image making will grow out of personal interests and a thorough investigation of the work of past and present artists. Students will be expected to commit serious time and effort to growing their understandings and skills through their individual practice and engagement in their investigative process. All supplies will be the sole responsibility of the student as well as a personal studio space for executing work.

**Video Production****392****Grade 9, 10, 11, 12****Prerequisite**

*Students may not take Video Production and Television Production in the same semester. Students who have completed this course and would like to continue in Video Production must have the signed approval of the instructor.*

Interested in visual communication? Here is your chance to tell a story. In video production you will learn how to develop story ideas, write scripts, shoot video, conduct interviews, use sound and light, and edit raw material to create a good story. The projects created in this class will be featured on the daily PMTV show, but this class will not be involved in the production of the show.

**Additional information**

*This course involves computer editing.*

**Television Production****398****Grade 9, 10, 11, 12****Prerequisite**

*Minimum grade of a B in Video Production*

You must possess the following qualities: the ability to work on a team, be comfortable speaking in front of a camera and other people, be accountable for assigned responsibilities, be able to meet deadlines, have a good vocabulary, and have a serious interest in television and television production. The primary objective of this course is to give students the necessary skills to function in a TV broadcasting center. Students are responsible for all aspects of a video broadcast in front and behind the scenes operations including editing, studio presentations, sound mixing, video graphics, camera operations and script writing. This class is responsible for producing the daily PMTV show.

**Additional information**

*Students may not take Video Production and Television Production in the same semester. Students who have completed this course and would like to continue in Television Production must have the signed approval of the instructor.*

**BUSINESS TECHNOLOGIES  
COURSE DESCRIPTIONS**

Student placement in higher-level Business Education classes will be based on the following criteria, unless specifically stated in the course description:

- Successful completion of an introductory class or previous level class with a grade of 70%.
- Determining grade will not include grading categories that do not reflect assessment, such as homework or extra credit.
- Performance on local assessment, such as midterms and final exams.
- Participation in class activities
- Teacher recommendation

**Accounting I****421****Grade 10, 11, 12**

Thinking about going to college and majoring in business or about entering directly into the workforce after school; then this course is for you. All business majors in a traditional business program at a college or business school are required to take an entry-level accounting course. Take Accounting I now and get a head start on the others. The course uses the accounting cycle to teach accounting theory and applications. After learning the basic use of a journal and ledger, special accounting systems and procedures are covered. The computer will also be used for basic automated accounting activities following the mastery of accounting theory. The ability to grasp concepts and problem solve is essential to succeed in this course.

**Accounting II****422****Grade 11, 12****Prerequisite**

*Minimum grade of a B in Accounting I and Permission of Instructor*

This course picks up where Accounting I lets off. After a review of the accounting cycle learned in Accounting I, the course covers several new adjusting entries. The year begins with a thorough review of the accounting cycle by completing a business simulation. The computer will be used to complete more advanced accounting procedures. The structure of this class permits for completion of the majority of assignments in class. This course may run in an independent study format.

**Marketing and Advertising****441****Grade 10, 11, 12**

In Marketing, students examine marketing concepts, functions, operations and organizations of businesses from the perspective of a business owner and consumer. Students will have the opportunity to conduct market research, develop a marketing plan, analyze case studies, recognize the latest marketing trends, discuss ethical marketing practices, and understand multicultural perspectives. In Advertising, Students will examine the elements of advertising to include digital, mobile, and social networks. The study of marketing/advertising culminates with Penn Manor's version of "The Apprentice". You will create competitive teams that will get to share the profit made from the project. This course additionally takes a look at media advertising elements, including digital, mobile, and social networks while reinforcing the importance of traditional components--television, magazine, online, and outdoor advertising--with everyday applications. Discussion on advertising initiatives features current campaigns, agency relationship, and media organizations.

**International Business & Investing****445****Grade 11, 12****Prerequisite**

*Minimum grade of a C in CP Algebra I or minimum of a B in Introduction to Algebra*

International Business! This portion of the course will cross the borders of our country and journey into the world of global economics. Students will study the many aspects involved when conducting business in a global economy. Students will develop an appreciation and the knowledge and skills needed to live and work in a global marketplace. Lessons will focus on the cultural diversities involved in international business and shed insights into an appreciation of other cultures. Topics will focus on finance, marketing, communications, human resources, multicultural awareness, business ownership, international business law, communication systems and E-commerce. Activities will involve graph and map analyses, math exercises in currency conversion, writing activities, case-studies relating to world issues, charting/graphing data and Internet research.

Investing in Your Future! This portion of the course will guide students through the decision-making process of deciding how to save and invest for their future. Topics will range from simple savings accounts, certificates of deposit, and money market funds to investing in the stock market. During the course, students will participate in a stock market simulation.

**Entrepreneurship****451****Grade 10, 11, 12****Prerequisite**

*Students interested in this course must submit an application as part of course registration.*

Are you interested in owning your own business some day? This is the course for you! Students will work as a team to complete a hands-on program where they will start up, run, and close a business over the course of a semester. They will be responsible for all of the financial documentation associated with operating a business as well. In addition to the classroom teacher, students will have the opportunity to work with a business professional on a regular basis. This professional will act as a consultant to the class to help guide the students to success.

**Open Campus Marketing****4411****Grade 11, 12****.5 Credit**

An online course designed for students to learn the tenets of marketing in the 21st century. After this course students will understand how to reach specific target markets, how to create a quality advertisement, and how to make the all important sale.

**Open Campus CP Personal Financial Literacy****4201****Grade 11, 12****.5 Credit**

Students will develop the financial skills related to income, taxes, financial planning, banking, consumer credit, budgeting, savings and investment, and insurance. This course will allow students to develop the knowledge and skills needed to make informed decisions as a consumer. Technological integrated learning experiences will be experienced throughout the course.

**Open Campus Sports and Entertainment Marketing****4412****Grade 11, 12****.5 Credit**

An online course designed to help students apply their knowledge of marketing to the sports and entertainment industry. Students will learn how beneficial marketing is to the \$100+ billion industry of sports & entertainment, how to create a venue that attracts fans, how to set up your entertainment company for success, and the many jobs available throughout the industry.



## **FAMILY AND CONSUMER SCIENCE COURSE DESCRIPTIONS**

Student placement in higher-level Family and Consumer Sciences classes will be based on the following criteria, unless specifically stated in the course description:

- Successful completion of an introductory or previous level class with a minimum grade of 70%.
- Determining grade will not include grading categories that do not reflect assessment, such as homework or extra credit.
- Performance on local assessments, such as midterms and final exams.
- Participation in class activities
- Teacher recommendation

### **Introduction to Family and Consumer Sciences: Skills**

**630**

#### **Grade 9**

Introduction to Family and Consumer Sciences focuses on the areas defined by the Pennsylvania Academic Standards for Family and Consumer Sciences. They include family relationships, child development, caregiver experiences, consumer skills, personal financial education, foods and nutrition, and career exploration. Career Exploration is also based on the Pennsylvania Academic Standards for Career Education and Work. Students will discover their personality preferences and connect them to a pathway and career using Career Cruising. Students will learn the skills needed to succeed in the workplace. Students will be exposed to activities related to finding a job, interviewing skill, and soft skills necessary to succeed in their careers.

### **Foods and Nutrition**

**621**

#### **Grade 10, 11, 12**

This course provides practical activities in the classroom and foods lab to promote knowledge of nutrition, foods and their preparations techniques. The course combines food safety, consumer strategies, personal nutrition and healthy eating, kitchen skills, current topical issues, and food group exploration and application.

#### **Additional information**

*A lab fee will be charged.*

### **Advanced Foods and Nutrition**

**622**

#### **Grade 11, 12**

This course is a sequel to Food & Nutrition and further explores techniques and principles of food preparation. A primary objective of the course is to develop the skills used in planning and preparing nutritious meals as well as making good decisions when purchasing foods. Studies include bread making, vegetarianism, cake decorating, soups and salads. A second objective of the course is to increase students' awareness, enjoyment and creativity through an understanding of international foods and their cultural significance, nutritive value, unique flavors and attractive appearance.

#### **Additional information**

*A lab fee will be charged.*

**Child Development****623****Grade 10, 11, 12**

This course focuses on preparation for childcare, careers related to children or parenthood. Students will study the functions of families and parenting skills. The course includes information from prenatal development through school-aged children with an emphasis on stages of growth and development of children. Units on toys, safety, and nutritious foods will also be included.

**Fashion & Design Foundations****625****Grade 10, 11, 12**

This course is designed for students who have an interest in fabrics, fabric crafts, and clothing construction. Students will work in the sewing lab to complete a variety of projects of their choosing, determined by their experience and interests. Students will have the use of several new computerized sewing machines. Projects may include fabric crafts, patchwork and quilting, machine embroidery, as well as the construction of garments. Students need to provide some materials for class projects.

**Additional information**

*A lab fee will be charged.*

**Advanced Fashion & Design****626****Grade 11, 12**

This course is designed as a continuation of Fashion and Design. Students are encouraged to develop advanced skills as they work on sewing projects and garment construction. Students taking Advanced Fashion and Design are required to complete more challenging projects as they develop their machine and construction skills. Students need to provide some materials for class projects.

**Additional information**

*A lab fee will be charged.*

**Living on Your Own****632****Grade 11, 12**

This course is designed to introduce students to the skills and abilities necessary for living on your own. Areas of study include personal financial education/renting and buying a home, nutrition and meal preparation, clothing care, consumer skills, child development and personal development.

## **FOREIGN LANGUAGE COURSE DESCRIPTIONS**

Student placement in higher level Foreign Language classes will be based on the following criteria, unless specifically stated in the course description:

- Successful completion of an introductory class or previous level class with a grade of 70%.
- Determining grade will not include grading categories that do not reflect assessment, such as homework or extra credit.
- Performance on local assessments, such as midterms and final exams.
- Participation in class activities
- Teacher recommendation

### **French I 521**

#### **Grade 9, 10, 11, 12**

In this beginning course, the emphasis is on correct pronunciation, vocabulary study, and basic rules of grammar. By learning short dialogues, the student has the opportunity to speak French with his classmates. In addition, French culture and the French influence on American life will be explored through videos and various activities.

### **French II 522**

#### **Grades 9, 10, 11, 12**

This course is a continuation of the work begun in French I with further development of the four language skills: listening, reading, writing and speaking. Students learn more about French customs. Grammar knowledge, especially verb formation, is expanded significantly.

### **French III 523**

#### **Grades 9, 10, 11, 12**

Emphasis in this course is on improving oral and written command of the language. Vocabulary is enhanced, and students learn and practice the majority of French verb tenses. Class gradually advances to near 100% immersion by the end of the semester.

### **Honors French IV 524**

#### **Grade 10, 11, 12**

This is a one-semester Honors-level course. Students will be immersed in French and use French nearly exclusively to communicate in class. Some explanations will be given in English, if necessary. Students will learn advanced grammar and will work to increase fluency, listening, reading and writing skills. Authentic materials from numerous French-speaking countries will be used frequently, especially for listening and speaking. This course is a prerequisite to AP French.

**AP French Language****526****Grade 11, 12****Prerequisite***B or better in French IV and Foreign Language Department recommendation*

The AP French Language course will prepare students to demonstrate their level of French proficiency across three communicative modes (Interpersonal, Interpretive, and Presentational) on the Advanced Placement French Language Exam. This year-long course is intended for students who wish to develop proficiency and integrate their language skills, using authentic materials and sources. Practice in integrating language skills and synthesizing written and aural materials are a fundamental part of the AP French Language course. The prerequisite for this course is a B or better in French 3, due to the advanced level of speaking and writing in the target language in this course. Students who wish to receive AP credit for this course must take the AP French Language Exam in May.

Students who do not wish to take a full year French AP course may participate in half of this course (French 4 in the fall semester and French 5 in the spring semester) for honors credit.

**German I****531****Grade 9, 10, 11, 12**

This beginning course in German teaches the basics of the German oral sound system. Students will learn numbers, the alphabet, greetings, time telling, colors, foods, etc. Additional units involve food, travel, sports, entertainment, shopping, school subjects and household chores. Each chapter focuses on a specific area in Germany to provide cultural background by emphasizing products and customs of the specific area.

**German II****532****Grades 9, 10, 11, 12**

This course is a continuation of the work begun in German I with further development of the four language skills: speaking, listening, reading, and writing. The students will learn about food, travel, sickness, health and healthy lifestyles, fashion etc. Grammar topics include conversational part, adjective endings, as well as sentence order. Students will learn cultural facts about Germany by completing web-projects, movies, reading assignments, and writing letters to pen pals.

**German III****533****Grades 10, 11, 12**

The German audio-lingual approach continues with units that emphasize topics involving health, jobs and working, leisure time, dating, fashion, dream houses, transportation etc. Grammar focuses on prepositions, future tense, and subjunctive mood. The four language skills, speaking, listening, writing, and reading, are furthered with an emphasis on speaking the language. Study of culture continues.

**Honors German IV****534****Grade 10, 11, 12**

Students have many opportunities to make use of their German skills in all four areas (reading, writing, speaking, listening), though the primary focus on this class is on furthering speaking skills in German. A variety of topics, including German children's literature, German music – modern and classical, active communication with people from Germany, German speaking countries such as Austria and Switzerland, food, as well as German history, will be discussed. Cultural units focus on the students' interests.

Students refine their writing skills by further study of composition. Students are expected to converse with classmates and the teacher in German. This course will serve as a pre-requisite to the AP German course. This course is offered every other year and serves as a prerequisite to German AP. This course will be offered again during the 2014-2015 school year.

**AP German Language****536****Grade 11, 12****Prerequisite**

*B or better in Honors German 4 and/or Foreign Language Department recommendation*

The AP German Language course will prepare students to demonstrate their level of German proficiency across three communicative modes (Interpersonal, Interpretive, and Presentational) on the Advanced Placement German Language Exam. This year-long course is intended for students who wish to develop proficiency and integrate their language skills, using authentic materials and sources. Practice in integrating language skills and synthesizing written and aural materials are a fundamental part of the AP German Language course. The prerequisite for this course is a B or better in German 4, due to the advanced level of speaking and writing in the target language in this course. Students who wish to receive AP credit for this course must take the AP German Language Exam in May. Students, who do not wish to take a full year German AP course, may participate in half of this course (can count as German 5 for honors credit).

This course is offered every other year and German 4 is a prerequisite. (Next time offered: 2013/2014 school year)

**Spanish I****551****Grade 9, 10, 11, 12**

In this level students will learn important classroom expressions in Spanish. Vocabulary topics will include the alphabet, numbers, clothing, classroom objects and school subjects, food, sports, the family, the house, and health. Students will learn how to talk about their favorite activities, describe their friends and family, tell time, and use all regular present tense verb forms. Grammar topics include adjective agreement, regular and irregular present tense verbs, possession, and direct and indirect object pronouns.

**Spanish II****552****Grade 9, 10, 11, 12****Prerequisite**

*Students must earn at least a final course grade of 70% in Spanish I, including at least a 70% average on the Spanish I course assessments.*

This course continues to build on skills previously learned in Spanish I. Students will be expected to begin speaking in the Spanish language more in classroom activities and discussions. Students will continue to develop their writing and reading skills as well. Vocabulary topics will include: technology, hobbies, and travel vocabulary. Students will learn to make comparisons, the present progressive tense, and the past, future and conditional tenses.

**Spanish III****553****Grade 9, 10, 11, 12**

This course continues to build on skills and knowledge from previous levels. New verb tense study includes the present subjunctive, present perfect, pluperfect and formal commands. In addition students study the differences between the preterite and imperfect tenses. Vocabulary themes include: medical treatment, cooking and food preparation, city and country living, cars and driving, public services, holidays/celebrations, and the world of work. Most of the instruction is in Spanish and partway through the semester, students are expected to begin speaking exclusively in Spanish within the classroom. Most units also include both reading comprehension and directed writing activities.

**Honors Spanish IV****544****Grade 10, 11, 12**

This course continues to build on skills and knowledge from previous levels. Grammar topics include: ser vs estar, active vs passive voice, pluperfect, additional commands, past subjunctive and conditional. Emphasis is placed upon incorporating new structures into authentic communication, both oral and written. Students are expected to converse with classmates and the teacher exclusively in Spanish. Readings include a collection of authentic short stories. This course also includes units on Mexico and Spain.

**AP Spanish Language and Culture****546****Grade 11, 12****Prerequisite**

*B or better in Spanish IV and Foreign Language Department recommendation*

This year-long course is designed to prepare students for the AP Spanish Language & Culture Exam. The course is structured around the 6 contextual themes of the exam. Topics of study include the Spanish Civil War; current challenges in immigration and the economy; art, literature and poetry; and careers. Most units include 1-2 short stories. Students will develop their proficiency in reading, writing, speaking, listening and presenting; practice integrating language skills; and learn to synthesize written and aural materials. The course is conducted exclusively in Spanish, and students are expected to adhere to a Spanish-only policy while in the classroom. Students who wish to receive AP credit for this course must take the AP Spanish Language & Culture Exam in May.

**Italian I****561****Grade 9, 10, 11, 12**

This course is an introduction to the Italian language focusing on vocabulary, grammar and correct pronunciation in conversational skills. The course also offers an overview of the Italian culture. We will cover the preliminary lesson and the first four chapters of the book. The preliminary lesson covers the alphabet, greetings, and farewells. Chapter one will cover time, numbers 0-30, and telling someone your age. The verbs “essere” and “avere” and “-are” verbs. The students explore culture, learning about different regions of Italy. In chapter two, vocabulary related to school will be covered, as well as how to make nouns plural, expressing possessions, expressing likes and dislikes, and the descriptive adjectives, and “-ere” and “-ire” verbs. In Chapter 3, vocabulary relating to family is explored. Students learn to pose questions, explain the weather, and learn about Irregular verbs. In chapter four, students learn the past tense, talking about the past actions and events, and learn vocabulary related to food.

**Italian II****562****Grade 9, 10, 11, 12**

This course is a continuation of Italian I with emphasis on conversation. Time will be devoted to speaking, listening, writing and reading. The course will also continue to offer an overview of the Italian culture. . The student needs a 70% or better in the Italian 1 course, this includes a 70% or better in the assessments, to continue with Italian. Chapters 4-8 will be covered in Italian 2. Chapter five covers how to order food and drinks in Italian. The students will be able to read and make recipes in Italian. The double object pronouns, adverbs and sapere vs conoscere (to know). Chapter six will cover vocabulary relating to hobbies and sports. The tenses of imperfect, progressive and the future will be covered. Chapter seven, vocabulary about health, body parts and clothing will be covered. The reflexive verbs, conditional tense and comparisons are taught. Chapter eight will cover vocabulary words on professions, means of transportation, along with the present subjunctive and relative pronouns.

**Italian III****563****Grade 10, 11, 12**

In this third level, an even stronger emphasis will be placed on conversation. Speaking, listening, writing and reading skills will continue to be developed along with further exploration of Italian culture. A 70% or better is expected from Italian 2, in order to continue to Italian 3. Chapters 9-12 will be cover throughout the semester. Reading short stories in Italian will be expected, in addition to chapters 9-12. Chapter nine deals with making travel plans: train station, travel agency, and airport vocabulary. The past perfect and the imperfect, past and past perfect subjunctive is covered. Chapter ten vocabulary deals with theater, cinema, and opera. The usage of conditional with the imperfect subjunctive, the suffixes and the preposition “da” is taught. Chapter eleven vocabulary words will deal with television, the press, Italian newspapers, and magazines. The ordinal numbers, and the preterite tense will be covered in this chapter, as well as the passive voice. Chapter twelve also deals with Italian politics and European politics.

**Open Campus CP Latin I****5651****Grades 10, 11, 12****Credit 1**

First year Latin CP is the first step in the process of learning to read ancient classical texts. Basic grammar and vocabulary of Latin are introduced. Students learn to read Latin texts immediately. The readings are based on Roman mythology, Roman history, and Roman literature. Customs of daily Roman life are also included.

Students will also learn about the influence Latin has had on the English language through the study of derivatives.

**Open Campus H Español Médico (Spanish for Healthcare)****5531****Grades 10, 11, 12****Credit 1****Prerequisite***Spanish IV Honors or Spanish for Native Speakers*

This online course includes independent, online work by students. The course is designed for students who are planning to pursue health care-related fields in college or other post-secondary vocations. The course serves as a complement to previous learning by adding the ability to assist patients in a medical situation. Curriculum will include typical physical/anatomy vocabulary, patient history, patient intake, determining basic pain or physical conditions/ailments, basic physical exam, common conditions and diseases, emergency procedures, intake and discharge procedures, prescription instructions, and taking/making appointments. In addition to basic language skills, emphasis will be specifically placed on patient-professional communication which is encouraged through role-play, dialogues, situational conversations, spontaneous communication, and the like. There is also a focus on proper translation and interpretation practices in the healthcare setting. Students are expected to communicate exclusively in Spanish.

**Open Campus Español Comercial (Business Spanish)****5532****Grades 10, 11, 12****Credit 1****Prerequisite***Spanish IV Honors or Spanish for Native Speakers*

This course is designed for students who would like to be able to use Spanish at their current jobs or in their future careers in the business world. Topics will include vocabulary such as social services, retail and sales, legal system, law enforcement, banking and finance, restaurant and food services, customer service, management, advertising, and marketing. Students will also learn about the economies of Spain and Latin America, as well as proper business etiquette and correspondence in the Hispanic world. A continual review of Spanish grammar will also be incorporated into lessons, in order to improve fluency. Emphasis will be placed on using authentic materials for listening and reading and using Spanish to communicate effectively in practical business situations through role-play, dialogs and presentations. Students will also investigate how Spanish is used and/or needed in the local business community. Students are expected to communicate exclusively in Spanish.

**Open Campus CP Chinese I****5652****Grade 11, 12****1 credit**

This course includes independent, online work by students. Students who have no background or a limited background in Chinese should begin with this course. The objective of this class is to introduce students to the Chinese language and culture through relevant topics such as school, family, daily life, and personal preferences. Students will be presented with immediately useful language while emphasizing speaking and comprehension. Course work includes listening, speaking, reading, and writing. Songs, history, poems, and rhymes will be inserted as cultural introductions whenever applicable during the lesson. The course will also explore Chinese cultures and practices in various Asian countries such as China, Taiwan, and Singapore. At the end of this course, students are expected to achieve some oral proficiency in daily conversation.



**LEARNING SUPPORT  
COURSE DESCRIPTIONS****RR Functional Reading****034****Grade 9, 10, 11, 12**

This year-long course is designed for students whose IEP team determines that extensive instruction in phonetics decoding is required to develop reading fluency and comprehension. Focus of this course will include phonemic development as well as reading strategies to increase comprehension.

**RR Foundations of Literacy 9/10****029****Grade 9, 10**

This year-long course is designed for students whose IEP team determines that extensive practice in reading comprehension and writing development is required. Writing instruction will include vocabulary development, grammar, usage and punctuation. Reading strategies will be emphasized utilizing short stories, novels and context readings.

**RR Transition English A and B 11/12****031****Grade 11, 12**

This year-long course is designed for 11<sup>th</sup> or 12<sup>th</sup> grade students whose IEP team determines a need to develop reading strategies as it applies to the world of work. Students will read literature as well as other types of written communication. Students will develop informational and persuasive writings, as well as complete job applications and resumes. Development of reading, writing, speaking and listening skills for transition from high school will be the focus.

**ES Communication Arts****052****Grade 9, 10, 11, 12**

This course is designed for students whose IEP team determines a need for ES small group instruction with modifications to the regular education curriculum. Students will receive extensive practice in reading comprehension and writing development is needed. Writing instruction will include vocabulary development, grammar, usage and punctuation. Reading strategies will be emphasized utilizing Programmed reading, short stories, novels and context readings.

**RR Functional Math****036****Grade 9, 10, 11, 12**

This year-long course is part of the Functional Academics Program offered to IEP students as per recommendation of his/her IEP team. This course will focus on functional mathematics and uses a scripted math program.

**RR Math - A****037****Grade 9, 10, 11, 12**

This course is designed for students whose IEP team recommends instruction in basic math skills in numbers and operations, geometry, measurement and data analysis and probability. This course is designed to provide significant opportunities to practice and review concepts of general math in preparation of RR 038, and RR 040/041.

**RR Math - B****038****Grade 9, 10, 11, 12**

This course is designed for students whose IEP team recommends instruction in basic math skills in numbers and operations, problem solving using proportional reasoning, all types of real numbers, graphing functions, geometric concepts with two and three-dimensional figures and probability. This course is designed to provide significant opportunities to practice and review concepts of general math in preparation of RR 040 and RR 041.

**RR Pre-Algebra - A****040****Grade 9, 10, 11, 12**

This is the first semester of a year-long course designed for students whose IEP team recommends instruction in basic math skills leading to Pre-Algebra. Topics include a review of basic math skills and an introduction to using algebra to solve practical problems, integers, one and two-step linear equations, factors and fractions, applying algebra to rational numbers, ratios, proportions and percents. The pace of this course is designed to provide significant opportunities to practice and review basic math concepts.

**RR Pre-Algebra - B****041****Grade 9, 10, 11, 12**

This is the second semester of a year-long course designed for students whose IEP team recommends instruction in basic math skills leading to Pre-Algebra. Topics include an introduction to solving multi-step linear equations and inequalities, functions and graphing, applying algebra to geometry, statistics and polynomials. The pace of this course is designed to provide significant opportunities to practice and review basic math concepts.

**RR Transition Math A and B 11/12****042****Grade 11, 12**

This year-long course is designed for 11<sup>th</sup> and 12<sup>th</sup> grade IEP students who are currently enrolled in a learning support math class. IEP team placement in this course should occur if the student requires remediation in Keystone areas including: Numeric operation, Measurement, Geometry, Algebraic Concepts, Data Analysis and Probability. Students will develop math skills, Real-Life Investigation and repetitive practice. The course will focus on skills for transition to CTC and preparation for the world of work and independent living.

**ES Math****051****Grade 9, 10, 11, 12**

This course is a general math development course designed to prepare Emotional Support students who as determined by their IEP team need to develop basic math skills or Pre-Algebra skills in a small group setting. Students will be working on numbers and operations, measurement, geometry, algebraic concepts, data analysis and probability at their educational level.

**RR Social Studies****014****Grade 9, 10, 11, 12**

This course is part of the Functional Academics Program offered to IEP students as per recommendation by his/her IEP teacher. Students will learn basic social studies concepts such as basic U.S. History. Students will receive their social studies credit by taking this course.

**ES Social Studies****054****Grade 9, 10, 11, 12**

This course is a general social studies development course designed to prepare Emotional Support students whose team determine that social studies skills need to be developed within the Emotional Support classroom. Students will be working on social, political, geographical, economic and cultural histories to prepare for transition to regular education US History and Civics.

**ES CBI****059****Grade 9, 10, 11, 12**

This course is a general development course designed to prepare ES students whose IEP team determine that community based instruction skills need to be developed. Students will develop socially appropriate and productive strategies toward achieving successful interactions and overall involvement within the community, as related to community activities and employability skills.

**RR Science****021****Grade 9, 10, 11, 12**

This course is part of the Functional Academics Program offered to IEP students as recommended by his/her IEP team. Students will learn basic science skills in Earth Science. Students will receive their science credit by taking this course.

**ES Science****055****Grade 9, 10, 11, 12**

This course is designed for students whose IEP team recommends ES small group instruction with modifications to the regular education curriculum. Concepts covered in this course include units in biology, earth science and physical science.

## MUSIC COURSE DESCRIPTIONS

Student placement in Music classes will be based on the following criteria, unless specifically stated in the course description:

- Successful completion of an introductory class or previous level class with a minimum grade of 70%.
- Determining grade will not include grading categories that do not reflect assessment, such as homework or extra credit.
- Performance on local assessments, such as midterms, performance evaluations and final exams.
- Participation in class activities
- Teacher recommendation

### PERFORMANCE ENSEMBLES

#### Grade 9, 10, 11, 12

##### Prerequisite

*Permission of Instructor*

This course is for students who wish to participate in band, orchestra or chorus or any combination of those three. Membership in the performance organizations is by the approval of the director, and students must perform for the organization director(s) so their level of instrument/voice proficiency can be assessed.

##### Additional information

*Students must elect one area of Performance Ensemble (Band, Orchestra, Chorus, Manor Singers) but are permitted to participate in more than one area. Additional Performance Ensembles will be notated in the comments area of the report card and under Activities on official transcripts.*

#### Band

##### 880

#### Grade 9, 10, 11, 12

First marking period emphasis is marching band, a competitively oriented organization that strives for musical and marching perfection at football games, parades and competitions. Marching band requires Tuesday, Thursday and Saturday additional rehearsals with performances on Friday and Saturday evenings. The remaining three marking periods focus on symphonic band. Students will have an opportunity to perform a wide range of both standard and contemporary band literature. Evaluative criteria will include student attendance at school-scheduled concerts, as well as performance techniques and memorized scales of varying speeds and articulations.

#### Honors Band

##### 865

#### Grade - 11, 12

##### Prerequisite

*Minimum of one year in Music Ensemble (Band, Orchestra, Chorus) with a grade of 85% or higher with permission of instructor*

Students will fulfill the requirements of performance ensemble, and will be required to meet the following additional requirements: 1. Students must prepare an honors audition solo. 2. Students must prepare and audition for County and/or District level ensembles. 3. Students must complete a topic/research paper. 4. Students must acquire private instruction. 5. Students must perform in one recital each school year.

**Orchestra****881****Grade 9, 10, 11, 12**

Students who enroll in orchestra must play a string instrument (violin, viola, cello, or double bass). Emphasis is placed on string ensemble literature, chamber ensemble literature and standard orchestral literature. Evaluative criteria include student attendance at school scheduled concerts, classroom participation, performance techniques and playing exams. Places for woodwind, brass and percussion players are determined by audition as needed. These players should not sign up for orchestra as a course until they have completed an audition and are notified by the high school orchestra director of their acceptance into the orchestra. Auditions will take place before the end of the school year.

**Honors Orchestra****866****Grade 11, 12****Prerequisite**

*Minimum of one year in Music Ensemble (Band, Orchestra, Chorus) with a grade of 85% or higher with permission of instructor*

Students will fulfill the requirements of performance ensemble, and will be required to meet the following additional requirements: 1. Students must prepare an honors audition solo. 2. Students must prepare and audition for County and/or District level ensembles. 3. Students must complete a topic/research paper. 4. Students must acquire private instruction. 5. Students must perform in one recital each school year.

**Additional information**

*String Requirements: shifting, display knowledge of bowing styles, vibrato*

**Chorus****882****Grade 9, 10, 11, 12****Prerequisite**

*Permission of instructor to participate*

Students who enroll in this course should have a sincere interest in developing their skills as a musician and vocal student. Students who enroll in chorus will have the opportunity to develop vocal skills, musical potential and proficiency through rehearsal techniques, choral literature, sight-singing, basic theory and performances. No past singing experience is necessary. Evaluative criteria will include student attendance at mandatory rehearsals; school scheduled concerts, classroom participation, rehearsal/ performance techniques and concert etiquette.

**Additional information**

*All guys who are interested in Chorus may sign up for this course. All 9<sup>th</sup> Grade Girls should join Girl's Chorus (883) and should not sign up for Full Chorus without the permission of the director.*

**Honors Chorus****892****Grade 10, 11, 12****Prerequisite**

*Minimum of one year in Music Ensemble (Band, Orchestra, Chorus) with a grade of 85% or higher with permission of instructor*

Students will fulfill the requirements of performance ensemble, and will be required to meet the following additional requirements: 1. Students must prepare an honors audition solo. 2. Students must prepare and audition for County and/or District level ensembles. 3. Students must complete a topic/research paper. 4. Students must acquire private instruction. 5. Students must perform in one recital each school year.

**Additional information**

*Vocal Requirements: demonstrate sight-singing ability*

**Girls Chorus****883****Grade 9, 10, 11, 12**

This chorus is open to any girl in grades 9-12 but is geared towards incoming freshmen and those new to choral ensembles. Students will explore music from various cultures and genres and learn the basics of solfege as a tool to read music. Students will also explore the basics of writing harmonies and arranging popular music for the voicing of a girls ensemble. This course will meet every day during the second semester.

**Manor Singers****859****Grade 10, 11, 12**

This is a select group, designed for vocal students with exceptional singing/musical abilities. The Manor Singers will be auditioned at the end of each school year to fill spots left by those who have graduated or are unable to participate. The audition will consist of a prepared piece, a sight-reading selection, and possible small group singing. This group will be performing more difficult works in preparation for community performances throughout the school year, as well as for the Christmas and Spring Choral Concerts.

**Additional information**

*Look for audition posters and announcements in the second semester*

**MUSIC ELECTIVES****Class Piano I****851****Grade 9, 10, 11, 12**

This course is designed to teach the beginning high school student how to play the piano as well as provide additional knowledge about the history of the piano, sound production, famous composers of piano music, and famous piano performers. Reading music is essential to this course. There are a number of supplemental activities, which include musical videos, listening examples, and a research paper. The final for this course is a recital/concert where students choose three songs from the semester and perform for their peers, teachers, and family members.

**Additional information**

*Class size is limited to the number of available pianos.*

**Class Piano II****852****Grade 9, 10, 11, 12**

This course is a continuation of Class Piano I. More advanced music will be taught. More solo work will be included.

**Additional information**

*Class size is limited to the number of available pianos.*

**Class Piano III****856****Grade 10, 11, 12**

Students work on an individualized basis beginning Piano III with review literature equivalent to the level they were working on at the end of Piano II. Each person then progresses at his or her own rate of speed.

**Additional information**

*Class size is limited to the number of available pianos*

**Honors Music Theory****854****Grade 10, 11, 12****Prerequisite:**

*Permission of Instructor*

This course is designed to give the student a basic understanding of the components and structures of music. Emphasis will be placed on those elements that are the most relevant to the music with which the student will have the most contact. For the most part harmonies are limited to diatonic triads and 4-note chords. Students will learn to apply aural skills to course content material.

**Additional information**

*Meets year-long during Block 1, Days 2, 4 & 6*

**Music Theory****853****Grade 9, 10, 11, 12**

Music Theory I is a class designed for anyone who prefers a hands-on and interactive instruction to best explore the functionality of music through programs and apps. Learn the basics on how to compose, record and edit as well as recording techniques such as importing, exporting and converting audio files.

**History of Rock****887****Grade 9, 10, 11, 12**

Students will study this popular music form from its roots in Rhythm and Blues, through the Rock-n-Roll explosion of the 50's and early 60's, the development of the psychedelic counterculture, the classic rock styles of 70's to the MTV video 80's. This course will examine rock 'n' roll music – its historical and musical rise to cultural dominance, exploring issues of race, gender, and class amidst the rapidly changing social, cultural, economic, and political landscape of mid-to-late 20th century.

**Guitar I****888****Grade 9, 10, 11, 12**

Guitar I is an elective course for students with little or no experience on the guitar. Students will learn open chords, power chords, movable chords, single note (melody) and improvising through various styles of rock, pop, folk, and classical music. This course also teaches music fundamentals and theory with emphasis on learning to read standard music notation. Nylon string acoustic guitars are supplied for student to use in school. Note: This course is limited to a total of 15 students per class.

**Guitar II****889****Grade 10, 11, 12****Prerequisite***Guitar I*

Guitar II is a performing arts class designed as an extension for those students who have successfully completed Beginner Guitar. Emphasis is placed on reading musical notation due to the advanced concepts and solo/ensemble performances. An important component of this course is the preparation and presentation of student work in public performance. Public performance opportunities will serve as evaluators of student progress and mastery level of curricular materials. Note: Nylon string acoustic guitars are supplied for student to use in school. This course is limited to a total of 15 students per class.

**Additional information**

*Students in Grade 9 may enroll in the course with instructor permission.*

**Theatre Arts****921****Grades 10, 11, 12**

This elective course will introduce students to many aspects of theatre – related to performance skills as well as what goes on behind the scenes in a theatre. Topics of study will include: vocal techniques and the audition process, character & script analysis, scenic design, sound & lighting, costume design and make up techniques. Information related to the history of and careers in theatre, and the business side of a production will also be included. Students will be actively involved in all phases of dramatics.

**Open Campus CP Popular Music in America****8871****Grades 9-12****.5 credit**

Popular Music in America is designed for students who have an interest in music but may or may not be inclined toward musical performance. This online course will introduce the history and influence of American music within the broader context of American culture. The primary goal of the course is to forge connections between the world of contemporary pop music (with which most students are intensely involved) and the historical roots of this music (which most know very little about). Students will learn to distinguish between different styles and genres and will gain a solid understanding of how popular music is constructed and produced.



**PHYSICAL EDUCATION, HEALTH, AND SAFETY EDUCATION  
COURSE DESCRIPTIONS**

Student placement in physical education classes beyond grades 9 and 10 will be based on the following criteria, unless specifically stated in the course description:

- Successful completion of an introductory or previous level course with a minimum grade of 80%.
- Determining grade will not include grading categories that do not reflect assessment, such as homework or extra credit.
- Performance on local assessments, such as midterms and final exams.
- Participation in class activities
- Teacher recommendation

As part of their graduation requirement, students must earn a credit in Physical Education/Health 9 and Physical Education/Safety Education 10. If a student is scheduled for band, orchestra, or chorus cycle days 1, 3, and 5, they may schedule their physical education classes on cycle days 2, 4 and 6.

**Physical Education/Health 9 or Physical Education/Health 9 (full year course with Music)**

This course is required of all ninth grade students. The class rotates with three health classes and three physical education classes per cycle.

**Physical Education/Safety Education 10 or Physical Education/Safety Education 10 (full year course with Music)**

This course is required of all tenth grade students. Safety Education will require 22 days of the semester and the remaining days will be physical education.

**PHYSICAL EDUCATION REQUIRED COURSES****Physical Education/Health 9****190****Grade 9**

This course is required of all ninth grade students. The class rotates with three health classes and three physical education classes per cycle. The health segment consists of Wellness and Stress Management, Substance Abuse, Human Growth and Development, and CPR Training. Emphasis is concentrated on decision-making skills and development of sound health practices. The physical education segment consists of fitness activities, team sports and lifetime carry-over activities. When weather permits, the activities are conducted outside. All activities are coeducational and emphasis is placed on exposure to and interest in activities for use in developing a wellness program for the future of the student.

**Physical Education/Health 9****194****Grade 9**

This is the full year course that alternates with the full year performance music classes. Same course description as Physical Education/Health 9 - 190

**Physical Education/Safety Education 10****192****Grade 10**

This course is required of all tenth grade students. The safety education segment consists of 22 classes of instruction of the proper use of an automobile, how the vehicle functions and safety precautions needed for the welfare of pedestrians as well as passengers. It includes buying, financing, maintaining and insuring the motor vehicle; natural and manmade laws; hazardous and emergency situations and misuse of alcohol and drugs with special emphasis on their effects on the driver. Concentration on decision-making skills is also a significant focus of this course. The physical education segment consists of fitness activities, team sports and individual activities with carry-over importance. All activities are coeducational and conducted outside when weather permits. Emphasis during activities is centered on cooperative team efforts, sportsmanship and responsible use of leisure time. A lifestyle of wellness and importance of exercise is stressed during this course.

**Physical Education/Safety Education 10****195****Grade 10**

This is the full year course that alternates with performance music courses. Same course description as Physical Education/Health 10 – 192.

**Adapted Physical Education/Health 9****191****Adapted Physical Education/Safety Education – 10 193****Grade 9, 10****Prerequisite**

*Note from Physician*

The adapted physical education classes are self-directed programs that enable students who cannot participate in the regular physical education program to develop within their special limitations. A physician must recommend a student for these programs.

**Open Campus CP Health Education****1941****Grade 11, 12****.5 credit**

An examination of mental, emotional, physiological and social health issues of young adults occurs in this course. Emphasis on healthful decision-making, long- and short-term goal setting, and looking into the future of one's quality of life will be discussed, debated and researched. Students will be engaged in learning aspects of human anatomy and physiology related to problems associated with disease prevention and how to determine and access good healthful information based on reliable media and other associated sources of information. This course is part of the High School open-campus initiative.

**Open Campus CP Physical Education (Hybrid)****1942****Grade 11, 12****.5 credit**

The online physical education program is designed for the independent student who consistently pursues fitness and recreation activities outside of the traditional physical education program. Such activities include but are not limited to: high school athletics and off-season training, regional competitions, dance instruction and performance, as well as independent activities. During the course, participants will be expected to maintain and submit logs of fitness activities, submit essays regarding fitness and recreation activities, and complete a bi-weekly assessment of their fitness levels. The student's grade will be primarily based upon the fitness levels demonstrated on the bi-weekly assessments. This course is only available as part of the High School open-campus initiative.

**PHYSICAL EDUCATION ELECTIVE COURSES**

Students wishing to enrollment in Physical Education Elective classes must meet the following criteria, unless specifically stated in the course description:

- Minimum grade of C in both 9<sup>th</sup> and 10<sup>th</sup> grade required courses.
- Maintain a B in all HE/PE elective courses.

**Physical Education/Anatomy****199****Grade 11, 12****Prerequisite**

*Minimum grade of a B in P.E./Health 9, and P.E./Safety Ed. 10*

This elective course is recommended for those students who are interested in studying physical education, physical therapy, nursing, art or any health care related field where knowledge of human anatomy and physiology would be helpful. All systems of the human body are studied. It is also recommended that this course be taken prior to Sports Medicine. The physical education segment consists of activities that can be used in developing a wellness program in the future. When weather permits, the activities are conducted outside and all activities are coeducational.

**Additional information**

*Students desiring to take a second PE elective must earn a B in their previous PE elective class.*

**Fitness Training/Current Health Issues I****200****Grade 11, 12**

This elective course is designed to bring about, by means of progressive resistance exercise, changes in the body as manifested in increased strength, endurance and flexibility. There will also be an effort made to amplify the student's knowledge and develop informed attitudes regarding nutrition, drug use/abuse, other health-related issues and the importance of commitment to achieving and maintaining total fitness. In general, the course is rather demanding in terms of physical work, but very satisfying for those interested in improving their physical fitness.

**Additional information**

*Students desiring to take a second PE elective must earn a B in their previous PE elective class.*

**Fitness Training/Current Health Issues II****204****Grade 11, 12****Prerequisite**

*Minimum grade of a B in Fitness Training/Current Health Issues I*

This elective course is designed for students who have successfully completed Fitness Training/ Current Health Issues I and wish to continue work on improving physical fitness and increasing knowledge of current health issues. Continued work on a personal fitness program that was begun in Fitness I will bring about increases strength, endurance and flexibility. Students will continue to explore and amplify their understanding of topics relating to health and wellness concerns that may impact their adult lives.

**Additional information**

*Students desiring to take a second PE elective must earn a B in their previous PE elective class.*

**Sports Medicine and Lifetime Sports****201****Grade 11, 12****Prerequisite***Minimum grade of a B in P.E./Health 9, and P.E./Safety Ed. 10*

This elective course consists of prevention, evaluation, treatment and rehabilitation of injuries, nutrition and legal issues. Special emphasis will be placed on sports related injuries. Cardiopulmonary resuscitation and first aid will be covered in the curriculum. In the activity portion of the course, students will investigate and participate in activities that carry over into their adult lives. Some activities may require a fee at the expense of the student. It is recommended that Anatomy be taken prior to electing this course.

**Advanced Physical Education/Sports Officiating****202****Grade 11, 12**

This elective course is recommended for students interested in officiating at the elementary, recreational or PIAA levels. Students will be given the opportunity to learn and develop various successful sports officiating skills and also the specific skills associated with their sport(s) of interest. In addition, they will have the opportunity to develop advanced physical skills, techniques and strategies in a variety of sports.

**Additional information***Students desiring to take a second PE elective must earn a B in their previous PE elective class.**Students interested in officiating at the elementary and recreational level should take this course during their junior year. Students interested in PIAA or other officiating association certification should take this course during their senior year. Any cost for materials such as rulebooks or other materials/fees will be at the expense of the student. Students are required to purchase a whistle prior to the first class.***Women's Health and Self Defense****203****Grade 11, 12**

This elective course consists of three blocks of women's health issues and three blocks of self-defense in each cycle. The health portion is devoted to important issues facing young women as well as topics of concern as young women age. The self-defense portion is devoted to preparing the student to avoid potential dangerous situations and to acquire physical skills to defend themselves in case of a physical assault. Students should be aware that physical contact and physical fitness are a part of this course.

**Additional information***Students desiring to take a second PE elective must earn a B in their previous PE elective class.*

<b>ELECTIVE OPPORTUNITIES FOR JUNIORS AND SENIORS</b> <b>COURSE DESCRIPTIONS</b>
---

**ELECTIVE OPPORTUNITIES FOR JUNIORS****SAT-Prep****908****Grade 11 (Fall only)****Prerequisite***Algebra II, CP level English*

Students planning to take the SAT are encouraged to choose this elective to help them reach their full potential on this crucial test. Students will rotate through two nine-week courses. Each section focuses on preparing students for the verbal and math sections of the SAT. Students will be expected to maintain a "C" or better to receive credit for this course. Any student planning to take the SAT should be taking CP course work or higher and have taken at least CP Geometry prior to taking the SAT.

**Service Learning****916****Grade 11, 12****Prerequisites***2.0 G.P.A. and 90% Attendance**Passing all Subjects**Personal Transportation within the first six weeks of school*

This course is designed for students in grades 11 and 12 who want to explore community service. Students will receive 1 credit for completing a minimum of 75 hours of community service. Attendance at a weekly class meeting is mandatory as is the completion and submission of a weekly time log, a reflection project each marking period, a service learning report, the keeping of a daily journal and a senior citizen interview. There will be no on-campus placements except for those who are awaiting their driver's license (students who want to work on campus should seek out a teacher to become a student intern). Students will explore community service at three separate sites (unless approved otherwise by the instructor). Students who develop discipline issues during the semester may be dropped from the course without receiving credit. No grade will be awarded for the Service Learning Experience, but one credit will be noted on the transcript.

**Service Learning Independent Study****917****Grade 11, 12****Prerequisites***Service Learning with a minimum grade of a B**2.5 G.P.A. and 90% Attendance**Personal Transportation*

This course is designed for students who have completed Service Learning in the classroom and would like to continue their involvement in community service projects. Service activities are performed during the regular school day. Students may only work at community service sites—non-profit organizations. A minimum of 80 service hours (5 hours per week) is required to pass the course. Students may not be paid for their service and are required to submit weekly time logs to the instructor as well as an end-of-marking period reflection paper. Students must be passing all subjects and have his/her own transportation. No grade will be awarded for the Service Learning Experience, but one credit will be noted on the transcript.

**ELECTIVE OPPORTUNITIES FOR SENIORS****Career Internships****909****Grade 12****Prerequisite***2.5 G.P.A. and 90% attendance*

The Career Internship Program is intended to provide Penn Manor High School seniors with opportunities to participate in on-site observations of business and professional organizations. This program provides students with the opportunity to interact with, observe, and assist individuals who are employed in the profession. The intent of the internship is to provide activities that enable the student to make informed career decisions based on significant knowledge and insights developed during participation.

**Additional information**

*The student is responsible for initiating and securing a career internship experience in their identified career field.*

*Seniors applying for an internship must demonstrate a satisfactory attendance record, be passing all subjects, and be a responsible citizen.*

*Students may not be paid for their internship experience.*

*Students spend five hours each week participating in the internship experience.*

*Students will schedule the career internship option during the course selection process.*

*No grade will be awarded for the Career Internship Experience but one credit will be noted on the transcript.*

*Class rank will not be affected by the internship.*

*This course is not for students who plan to work in the agricultural industry. Students who wish to work in agriculture must register for Ag Co-op.*

**Activity**

*Career Internship participants are released from school during a block of their schedule to participate in an internship experience in the greater Lancaster community. The job specific activities in which a student may participate or observe will be determined by the participating business or organization in cooperation with the student, parents, and school. No student may participate in activities that would be considered unusually dangerous or inappropriate for his/her age level. The internship site must be in the identified career field of the student.*

**Steps to Implement Internship**

- *Student must participate in career shadowing in junior year then schedules internship for the following year.*
- *Student reviews internship agreement*
- *Student contacts businesses/organizations and arranges internship prior to September of senior year.*
- *Student, parent and site supervisor complete internship contract.*
- *Student secures approval of site from intern advisor (justification meeting)*
- *Student arranges transportation to internship site.*
- *Student prepares daily journal of experience for internship activity.*
- *Supervisor signs journal each week to verify attendance.*
- *Student submits journal to internship supervisor each month.*
- *Student submits evaluation form, 2 times, completed by site supervisor.*
- *Student attends three mandatory meetings with intern advisor.*

**Work Study****913****Grade 12****Prerequisite**

2.0 G.P.A. and 90% attendance

Work Study is a program in which students can be released from school and earn up to two credits for their employment. Students are required to work a minimum of 10 hours per week and must begin working by 2:00 PM. Students are required to turn in weekly time sheets. Students must maintain a grade point average of no less than 2.0 and an attendance rate of 90% or better. Work Study is only open to seniors who plan to directly enter the workforce upon graduation from high school. This course is not intended for students continuing their education at a post-secondary educational institution after graduation. Placements are made on job availability. If a student is not employed at the start of school in September, a class will have to be scheduled. No grade will be awarded for Work Study, but one credit will be noted on the transcript.

**Independent Studies****Grade 12****Prerequisite**

*Teacher and department approval and a grade of an A in all available courses in the subject area in which this independent study will be completed.*

Students must obtain and complete a "Petition for Independent Study Form" available in the Counseling Office. Petition must include a detailed plan of study along with signatures of advisors, department coordinator and principal.