

Antietam Middle-Senior High School

**Course Selection
Handbook**



**Grades 7 - 12
2011 - 2012**

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GENERAL INFORMATION

This Antietam High School Course Selection Handbook should be used in conjunction with Grade Level Scheduling Patterns found following this section. The patterns provide:

- Required grade level subjects
- Number of electives possible
- Scheduling guidelines for each grade

You will note that courses in the handbook are arranged departmentally, including all required and elective subjects. In addition to a brief content description of each course, grade sequences, prerequisites, and periods meeting per cycle are indicated. Subjects are presented in grade level order whenever possible.

It is very important to note that due to the many factors and variables involved in the scheduling process, we cannot guarantee that students will receive all of their selections. We may need to adjust the offerings to accommodate various course loads and teacher assignments. Whenever possible, students will be contacted to discuss their schedules if selections cannot be accommodated.

Course descriptions are organized alphabetically by department (refer to the Table of Contents).

1. Course Requirements: All students in grades 7 and 8 are enrolled in full schedules that include: English, Fine Arts, Mathematics, Science, Social Studies, Physical Education, Reading, and World Language. No study halls are scheduled in our school.

All students in grades 9, 10, 11, and 12 are expected to enroll in a minimum of 8 credits per year.

2. Grading System: The quality of students' work in school is measured by the grades received on their report card.

| | | | | | | | | | | | |
|----|---|------|---|----|------|----|---|-----|---|----|---------|
| 93 | - | 100% | = | A | 4.00 | 70 | - | 72% | = | C- | 1.67 |
| 90 | - | 92% | = | A- | 3.67 | 67 | - | 69% | = | D+ | 1.33 |
| 87 | - | 89% | = | B+ | 3.33 | 63 | - | 66% | = | D | 1.00 |
| 83 | - | 86% | = | B | 3.00 | 60 | - | 62% | = | D- | 0.67 |
| 80 | - | 82% | = | B- | 2.67 | 0 | - | 59% | = | F | Failure |
| 77 | - | 79% | = | C+ | 2.33 | | | | | | |
| 73 | - | 76% | = | C | 2.00 | | | | | | |

3. Incomplete and Make-Up Work Policy: It is the responsibility of students to obtain missed work from their teachers on the day of their return to school. All teachers are available for this during I.S.T. each day from 2:40 - 3:10 p.m. Students who miss class for excused reasons (including suspensions) are expected to complete and submit missed work. A timeline for completion is stipulated in the Student Handbook. Work missed due to an unexcused or illegal tardiness or absence is subject to no credit/no make-up at the discretion of the teachers. Students who miss class due to school trips, athletic events, etc. are expected to see their individual teachers on the day they return to school for missed assignments.

Teachers may grant an incomplete grade for a marking period only if students have multiple approved excused absences or are absent near the end of a marking period. Incomplete grades may not be granted for any other reason unless extenuating circumstances exist and the principal approves the request. All incomplete grades will be converted by teachers to the actual numerical grade with the missing items graded zero one week following the conclusion of a marking period unless the work is completed. Teachers have the option to change students' grades only during the subsequent marking period except following the end of a semester.

4. Honor Roll Calculations: Marking period averages for honor roll are computed using a simple non-weighted formula. The same formula is used for grades 7-12. Even though credit is not 'earned' in grades 7 and 8, for the purpose of honor roll calculations, a credit value will be used for each course, each marking period, to determine the point value earned.

| <u>Course</u> | <u>Mark</u> | | <u>Credits Earned During</u> <u>Marking Period</u> | | <u>Points</u> |
|----------------|-------------|---|---|---|---------------|
| AP English | 90 | x | .25 | = | 22.50 |
| Social Studies | 92 | x | .25 | = | 23.00 |
| Physics | 93 | x | .25 | = | 23.25 |
| Phys Ed | 90 | x | .25 | = | 22.50 |
| Ind. Living | 92 | x | .25 | = | 23.00 |
| Chorus | 91 | x | .25 | = | 22.75 |
| Totals | | | 1.50 | | 136.75 |

The example above would result in 136.75 points to be divided by the 1.50 credits earned during that marking period, for a grade average of 91.2. In this example, the student would qualify for honor roll.

Honor roll is achieved in two levels:

- Honors designation: Grade average is $\geq 94.5\%$ (no grade $< 80\%$)
- Merit designation: Grade average is $\geq 89.5\%$ (no grade $< 75\%$)

5. Class Rank and Grade Point Average (GPA): Class rank for grades 9-12 is based on computing weighted GPA by converting actual marks to the four point alpha numerical scale. To accomplish this, actual marks are converted to the four point scale and then multiplied by the credit and weighting factor to determine total quality points. Total quality points are then divided by the total of attempted credits to determine GPA. An example follows:

| | | | | | |
|---------|---|------|--------|---|------|
| 93-100% | = | 4.00 | 73-76% | = | 2.00 |
| 90-92% | = | 3.67 | 70-72% | = | 1.67 |
| 87-89% | = | 3.33 | 67-69% | = | 1.33 |
| 83-86% | = | 3.00 | 63-66% | = | 1.00 |
| 80-82% | = | 2.67 | 60-62% | = | 0.67 |
| 77-79% | = | 2.33 | | | |

| <u>Course</u> | <u>Mark</u> | <u>Alpa</u> <u>Points</u> | <u>Credit</u> | <u>Weight</u> | = | <u>Quality</u> <u>Points</u> |
|----------------|-------------|------------------------------|---------------|---------------|---|---------------------------------|
| AP English | 94 | 4.00 | 1.0 | 1.10 | = | 4.4 |
| Social Studies | 92 | 3.67 | 1.0 | 1.00 | = | 3.67 |
| Physics | 93 | 4.00 | 1.0 | 1.00 | = | 4.0 |
| Phys Ed | 94 | 4.00 | 0.5 | 1.00 | = | 2.0 |
| Ind. Living | 92 | 3.67 | 0.5 | 1.00 | = | 1.835 |
| Chorus | 94 | 4.00 | 1.0 | 1.00 | = | 4.0 |
| | | | 5.0 | | | 19.905 |

This example would result in 19.905 quality points to be divided by the 5 credits attempted, providing a **grade point average** of 3.981. For over-all grade point average, all quality points are added together and divided by the total of all credits attempted.

6. Promotion: Promotion in grades 7 and 8 is based on passing courses. Students who fail two major subjects or one major subject and two minors may be retained by grade level for the following year. Major courses are those that meet three full periods per cycle or every day for half a period.

Promotion in grades 9-12 is based on achieving credits toward graduation. Students who fail a required core course must retake the course and must arrange to do so through the guidance office. Students who do not achieve the minimal number of credits will be retained by homeroom level.

| | |
|-----------------------|---------------------------------|
| Promotion to Grade 10 | Accumulating 6 credits or more |
| Promotion to Grade 11 | Accumulating 13 credits or more |
| Promotion to Grade 12 | Accumulating 20 credits or more |

7. Graduation and Promotion Requirements.

A. Graduation credit requirements:

i. A total of 27.5 credits are required for graduation. These credits must be earned in grades 9, 10, 11, and 12.

ii. The 27.5 credits must include the following distributions:

- 4 credits in English.
- 4 credits in Social Studies.
- 4 years (2 credits) of Physical Education and 2 years (1 credit) of Health.
- 3 credits in Science (one must be a Lab Science)
- 3 credits in Mathematics (Note: Beginning with the Class of 2014, 4 credits of Math will be required).
- Students must schedule a unit in Computer Applications and Writing 9.
- Students planning to attend college should take 2 sequential years of a world language in grades 9-12.
- Plus remaining credits earned in elective sequences in the areas of World Language, Technology, Education, Business Education, Mathematics, Science, Family & Consumer Science, Humanities, or other areas.
- Career & Technology students will receive 4 credits for their curriculum.
- Students must select sufficient courses, including ½ credit courses, to complete their schedule. No open periods will be allowed.

iii. The State of Pennsylvania adopted as a part of Chapter V a comprehensive graduation project requirement for all students, beginning with Antietam students in the graduating class of 2000. This project has been included as a part of the new graduation requirements adopted by the Pennsylvania Department of Education in the new Chapter IV requirements. The requirement is described as follows:

In order to graduate from high school, a student shall complete a project in one or more areas of concentrated study under the guidance and direction of the high school faculty. The project's purpose, which may include research, writing, or some other appropriate form of demonstration, is to assure that the student is able to apply, analyze, synthesize and evaluate information and communicate significant knowledge and understanding. Projects may be undertaken by individual students or groups of students. (Chapter V, Section 5.214, Pennsylvania Bulletin, July 24, 1993).

B. 50% Policy: Students that fail any course(s) during the 1st marking period will receive a letter grade of 'F' for report card purposes. Should a student then demonstrate effort and improvement (60% or higher) in all subsequent marking periods, the course instructor(s) will change the 1st marking period grade to the actual percentage achieved by the student, but not less than 50%. If a student fails to demonstrate effort and improvement, the 1st marking grade shall revert to the achieved percentage.

C. Summer School: Students with a minimum 50% final grade (or approval from the principal) will be permitted to attend summer school. Only three major courses may be made up in summer school.

8. Independent Study.

- A. Philosophy: Independent Study courses are intended to provide students with the opportunity to expand study beyond the curriculum. In addition, students may desire to expand their academic program in disciplines and study in course work not included in our current course offerings. These may include independent work, college courses, and/or courses at other area schools.
- B. Exception: Juniors and seniors in good academic standing with a GPA of 2.5 or higher and an overall attendance of 92% or above may apply for a one block independent study as an aide or teacher assistant in the office, library, or classroom.
- C. Procedures: In addition to the standard request form for independent study, the student and the sponsoring teacher must submit the following:
 - i. A list of specific objectives detailing the desired outcomes of the program.
 - ii. A general planned course of study that identifies the areas of content to be studied.
 - iii. A plan for evaluation that includes a listing of measurements/projects required for completion.
- D. Grading of Independent Study

While the school recognizes the value of independent study to students' individual learning plans, it is difficult to fully equate the content and work associated with these projects with the core subjects in the school. The following guidelines apply for all independent study courses:

- i. Grades for approved Independent Studies will:
 - 1 Be pass/fail.
 - 2 Will print on the student's report card.
 - 3 Will print on the student's transcript.
 - 4 Will not count for credit or toward the cumulative GPA.
 - ii. Students may request that the independent study course be approved for credit and that the grade earned for the independent study count toward the GPA. In order for approval, students must petition the department chairs. Furthermore, if students desire that the grade earned for the independent study be weighted over 1.0, they must make this request in writing as well.
- 10. Grouping of Students: Grouping is simply a method of placing students in educationally appropriate groups in order to present the curriculum in a manner best suited for their individual learning method. In general, all programs are designed to prepare students for continuing their education in post-secondary schools.
 - A. Grades 7 & 8: The district will no longer group these students except for mathematics.
 - B. Grades 9-12: Beginning with the class of 2014, the district will no longer use the on-level and college prep groups and will heterogeneously schedule all students except those that desire to select the honors program.

GRADE LEVEL SCHEDULING PATTERNS - Grades 9-12

Typically, all students are required to select the following grade appropriate courses:

Grade 9

- English
- Geometry
- Biology
- US PA History
- Reading/Writing
- Computer Applications
- Physical Education/Health
- World Language

Grade 10

- English
- Algebra II
- Chemistry
- US American History III
- Physical Education*
- In addition, students will choose 3.5 credits of their electives based on interest and post-secondary plans.
- BCTC enrollment counts as 4 elective credits.

Grade 11

- English
- Pre-Calculus, Foundations of Math, Algebra III, Business Math, or Statistics.
- Physics
- Economics/Current Events
- Physical Education*
- Health 11 (BCTC students must schedule Health 11 in grade 12).
- In addition, students may choose 3 credits of electives based on interest and post-secondary plans.
- BCTC enrollment counts as 4 elective credits.

Grade 12

- English 12
- American Government
- Physical Education 12
- A math course is recommended for every senior regardless of post-high school plans and is required for the Class of 2014.
- In addition, students choose electives based on interest and post-secondary plans for a complete schedule of 4.5 credits.
- BCTC enrollment counts as 4 elective credits.

*BCTC students in grades 10-11 will enroll in an independent PE program with their counselor.

DROP/ADD POLICY

Since scheduling of students and classes is a cumbersome and time consuming task, once student schedules are completed, changes will only occur in cases of extreme circumstances. These are as follows:

- 1) Academic misplacement.
- 2) Change from a less difficult course to a more difficult.
- 3) Addition of a course to meet graduation requirements.
- 4) Addition of a missing prerequisite.

In order to change a schedule, students must discuss the requested change with the guidance counselor and complete the necessary form. The counselor, teacher, parent/guardian, and principal must then approve this change. No change is complete until approved by all those above and notice is given to the student.

Schedule changes must be finalized by the conclusion of the first full week of each semester.

| |
|-------------------------|
| WEIGHTED COURSES |
|-------------------------|

| Level One (1.05) * | Level Two (1.10) ** |
|---|-----------------------------|
| #2120 Honors English 9 | #2150 AP English 12 |
| #2130 Honors English 10 | #2250 AP American History |
| #2140 Honors English 11 | #2340 Advanced Chemistry II |
| #2210 Honors PA History 9 | #2341 Advanced Biology II |
| #2220 Honors US History 10 | #2342 Anatomy & Physiology |
| #2230 Honors Economics 11 | #2343 Advanced Physics II |
| #2240 Honors American Government 12 | #2360 AP Biology I |
| #2320 Honors Biology I | #2361 AP Biology II |
| #2330 Honors Chemistry | #2422 AP Computer Science A |
| #2350 Honors Physics | #2491 AP Calculus II |
| #2420 Computer Science I: C++ Intro to Prog. | #2495 AP Statistics |
| #2421 Computer Science II: C++ Advanced Prog. | #2625 Spanish IV |
| #2450 Honors Integrated Math II | #2626 Spanish V |
| #2455 Honors Geometry | #2645 German IV |
| #2458 Honors Algebra II | #2646 German V |
| #2460 Honors Integrated. Math III | |
| #2481 Honors Pre-Calculus (11) | |
| #2493 Calculus | |
| #2561 Accounting II | |
| #2620 Spanish III | |
| #2640 German III | |
| #2650 German Cultures | |

ELECTIVES

| 10th Grade Electives | | Credit | 11th & 12th Grade Electives (All of 10th grade electives AND...) | | Credit |
|----------------------|---|--------|---|---|--------|
| 2160 | Writing Workshop I | 1 | 2010 | Film as Literature | .5 |
| 2170 | Speech/Debate | .5 | 2015 | Contemporary Literature Circles | .5 |
| 2175 | Drama | .5 | 2020 | Mythology | .5 |
| 2185 | Journalism/Yearbook GPA / 2186 Non GPA | 1 | 2161 | Writing Workshop II | 1 |
| 2190 | SAT English Prep | .5 | 2252 | Psychology | 1 |
| 2363 | Practical Applications of Science | 1 | 2254 | Sociology | 1 |
| 2420 | Computer Science I: C++ Intro to Prog. | 1 | 2340 | Advanced Chemistry II | 1 |
| 2434 | Digital Media I | 1 | 2341 | Advanced Biology II | 1 |
| 2500 | Internship (Career Explorations) | 1 | 2342 | Anatomy & Physiology | 1 |
| 2530 | MS Word | 1 | 2343 | Advanced Physics II | 1 |
| 2531 | Spreadsheets & Presentations | 1 | 2360/2361 | AP Biology I/II | 1 |
| 2560 | Accounting I | 1 | 2362 | Forensic Science | 1 |
| 2610 | Spanish I * / 2630 German I * | 1 | 2421 | Computer Science II: Advanced C++ Prog. | 1 |
| 2615 | Spanish II / 2635 German II | 1 | 2435/2437 | Web Page Design I/II | 1 |
| 2620 | Spanish III / 2640 German III | 1 | 2436 | Digital Media II | 1 |
| 2650 | German Cultures <i>German Exchange Students Only*</i> | 1 | 2445 | Algebra III | 1 |
| 2711 | Art Exploration | .5 | 2470 | SAT Math Prep | .5 |
| 2712 | Drawing I | 1 | 2480 | Pre-Calculus | 1 |
| 2713 | Watercolor I | 1 | 2481 | Honors Pre-Calculus | 1 |
| 2714 | Painting I | 1 | 2485 | Foundations of Math+ | 1 |
| 2716 | Pottery/Ceramics | .5 | 2494 | Statistics | 1 |
| 2717 | Computer Graphics | 1 | 2495 | AP Statistics | 1 |
| 2726 | Independent Living | .5 | 2561 | Accounting II | 1 |
| 2733 | Art History/Humanities | 1 | 2562 | Accounting III | 1 |
| 2734 | Intro to Stagecraft | 1 | 2570 | Entrepreneurship | 1 |
| 2735 | CAD Technology | 1 | 2625 | Spanish IV / 2645 German IV | 1 |
| 2736 | Child Care & Development | 1 | 2715/2725 | Photography I /II | 1 |
| 2737 | Creative Foods | 1 | 2722 | Drawing II | 1 |
| 2739 | Interior Design | 1 | 2723 | Watercolor II | 1 |
| 2740 | Cultural Diversity in Foods & Nutrition | 1 | 2724 | Painting II | 1 |
| 2743 | Performance Music | 1 | 2728 | Raster Computer Graphics | 1 |
| 2749 | Class Piano | 1 | 2729 | Video Production | 1 |
| 2845 | Fitness for Life | .5 | 2730 | Vector Computer Graphics | 1 |
| | BCTC | 4 | 2744 | Performance Music II | 1 |
| | | | 2748 | Music Technology | 1 |

* 9th grade electives

| 12th Grade Electives | | Credit | 9th – 12th Grade Electives | | Credit |
|----------------------|---------------------------|--------|----------------------------|----------------------|--------|
| 2422 | AP Computer Science A | 1 | 2180 GPA / 2181 Non-GPA | Journalism/Newspaper | 1 |
| 2465 | Business Math | 1 | 2750 GPA / 2751 Non-GPA | Band | 1 |
| 2491 | AP Calculus | 1 | 2745 GPA / Non-GPA | Concert Choir | 1 |
| 2493 | Calculus | 1 | | | |
| 2626 | Spanish V / 2646 German V | 1 | | | |

| Other Options | |
|--|--|
| Dual Enrollment (Grade 12) - see page 51 | Co-op (Grade 12) - see pages 14-15 |
| Internship (Grades 10-12) - see page 50 | Medical Health Professions - see page 52 |
| On-Line Learning - see page 50 | |

FINE ARTS – GRADES 7-8

Fine Arts (7)

Students receive 22 days of instruction in the following courses of study: Art, Computer Literacy, Music, and Technology Education. All courses are described within each department's course offerings.

Fine Arts (8)

Students receive 22 days of instruction for in the following courses of study: Art, Family and Consumer Science, Intro to Microsoft Word, and Technology Education. All courses are described within each department's course offerings.

ART

Art (7)

Rotation Course

This course will concentrate on developing creativity through the practice of two- and three-dimensional activities. Historical, cultural, and aesthetic issues of major art styles and trends will be addressed. Students will be encouraged to continue developing and advancing in the expression of personal style when communicating visually.

Art (8)

Rotation Course

This course will explore expressive and interpretive qualities on major art styles and trends and encourage the student to apply them to personal creative responses. Students will gain an increased awareness of the art elements and principles of design and be able to identify them in art forms, both two- and three-dimensional.

#2711 Art Exploration (10-12)

Elective

0.5 credit

This elective course will explore the creative styles of contemporary artists in a variety of art works and forms. Primary emphasis will be placed on individual interpretations of these artistic styles and themes. Self-expression will be encouraged in a variety of media, both two- and three-dimensional. Students will be encouraged to advance their techniques in drawing, painting, color theory, and ceramics.

#2712 Drawing I (10-12)

Elective

1 credit

Offering an understanding of various drawing techniques, this elective will allow students to pursue personal creative statements. Following media will be employed:

| | |
|--------|----------------|
| Pencil | Watercolor |
| Chalk | Colored Pencil |
| Pastel | Magic Marker |
| Ink | |

#2722 Drawing II (11-12)

Elective

1 credit

An advanced course in drawing with the instructor's recommendation.

#2713 Watercolor I (10-12)

Elective

1 credit

This course will concentrate on color theory and explore various painting techniques unique to the medium. Through various exercises and projects, the student will gain control of this painting medium and a familiarity with the styles of contemporary watercolor artists. The student will experiment with different painting styles in a progressive manner, enabling the student to move toward advanced levels of painting.

#2723 Watercolor II (11-12)

Elective

1 credit

An advanced course in watercolor with the instructor's recommendation.

ART

#2714 Painting I (10-12)

Elective

1 credit

This course is designed for the student with experience in and knowledge of drawing techniques. The student will learn how to paint in acrylic paints. Projects will be centered on both Contemporary and the Master Artists styles and reveal their purposes for painting.

#2724 Painting II (11-12)

Elective

1 credit

An advanced course in painting with the instructor's recommendation.

#2715 Photography I (11-12)

Elective

1 credit

This elective offers a complete survey of the photographic process. The students will understand black and white photographic processes. Students will develop and print their own images. Various technical processes concerning the camera and darkroom equipment will be offered.

Prerequisite:

- **All students must have a single lens reflex camera – 35 mm for use in this class. The district can provide a limited number of cameras so students should attempt to find their own. Any photography equipment (cameras) that is lost, stolen, or malfunctioning must be replaced by the student prior to the end of the class in order to receive credit.**

#2725 Photography II (11-12)

Elective

1 credit

An advanced course in photography with the instructor's recommendation.

#2716 Pottery/Ceramics (10-12)

Elective

0.5 credit

This course will explore the artistic heritage and cultural development of clay as an art form, and how it has evolved throughout history. The student will become familiar with various clay works and their significance as artifacts in our culture as well as their roles in other geographical locations. The importance of their form and function will be examined. Students will create functional and decorative pieces using a variety of forming and glazing techniques. Self-expression and good craftsmanship will be emphasized.

#2717 Computer Graphics (10-12)

Elective

1 credit

This course provides students the opportunity to explore various computer graphic techniques. Projects in this course will be completed using both raster and vector based computer programs including Photoshop and Illustrator. Students will be able to import images using a variety of techniques, including scanned images and images imported from digital and video cameras.

NOTE: This course is a prerequisite for both Raster Computer Graphics and Vector Computer Graphics.

ART

#2728 Raster Computer Graphics (11-12)

Elective

1 credit

This course provides students the opportunity to expand their knowledge of the fundamentals of Photoshop and allows the student to further explore all the potentials of raster based digital imagery. Photoshop is a sophisticated image editing applications that enables users to digitally create color images, draw, paint, merge and edit color images, compose collages and photo montages, retouch photographs, and prepare images for both print and Web utilization. Through presentations, demonstrations, exercises and projects, this course will introduce the students to Photoshop's tools, techniques, and potential applications.

Prerequisite:

- **Successful completion of #2717 Computer Graphics.**

#2730 Vector Computer Graphics (11-12)

Elective

1 credit

This course provides students the opportunity to expand their knowledge of the fundamentals of Adobe Illustrator and to further explore all the potentials of vector based digital imagery. Illustrator is an intricate drawing program that allows users to create sophisticated artwork, technical illustrations, graphics, and page designs for print, multimedia, and the Web. Illustrator offers a full range of drawing and painting tools, as well as typographic control.

Through presentations, demonstrations, exercises, and projects, this course will introduce the students to Illustrator's tools, techniques, and potential applications.

Prerequisite:

- **Successful completion of #2717 Computer Graphics.**

#2733 Art History (10-12)

Elective

1 credit

The art history course will give students the opportunity to learn more about the artists and time periods that are covered in the current art curriculum. Oral instruction will be given daily that include facts and relevant information about the time period and artists being covered, while PowerPoint presentations will offer students images of the topic. Students will also have the chance to critique artist's works through both small and large group discussion. Students will be required to complete presentations for the class.

BUSINESS

Computer Literacy (7)

Rotation Course

The emphasis in this course will be in utilizing the computer and master 'touch typing' skills and introduce basic features of Microsoft Word. Students will learn proper letter set up and rules for desktop publishing. Document layout, spacing, and formatting will be introduced.

#2410 Computer Applications (9)

Required

1 credit

Computer applications include the introductory operations of *Microsoft Excel, Access, and PowerPoint*. Desktop publishing and web design techniques will be introduced. Integration of digital media and scanners will also be integrated. The basic hardware and software components of a personal computer system are included topics. This required course is activity and project driven.

#2530 MS Word (10-12)

Elective

1 credit

Students will explore all the features of Microsoft Office Professional **Word** application while learning the proper formatting procedures for letters, envelopes, tables, memorandums, outlines, and reports. Internet research and documentation will also be included. This knowledge is extensively used in high school, college, and today's business world. This course is activity and project driven.

#2531 Spreadsheets & Presentations (10-12)

Elective

1 credit

This combination of electives will increase the student's knowledge of the other **Microsoft Office Professional - Excel, Access, and PowerPoint** - applications whose features have become an industry standard for today's college student and workforce. Integration of all four Office applications will be included in this course. This course is activity and project driven.

#2500 Internship (Career Exploration) (10-12)

Elective

1 credit

Internship is a career exploration activity in which a student observes and trains under the supervision of a qualified mentor for a period of one semester, with an approved schedule by the coordinator and mentor, to learn about a particular occupation. It is a non-paid experience. Each student will be given a **Pass/Fail grade** at the end of the semester. All senior interns must have completed their Graduation Project by the end of the first marking period in the semester in which they elect an Internship. Failure to do so will result in the return to in-school study until the student completes the Graduation Project.

#2560 Accounting I (10-12)

Elective

1 credit

Through this elective study of accounting, students gain an insight into the structure of the financial records of a single proprietorship and a partnership for a service business and a merchandising business. By classifying and analyzing accounts, each student acquires knowledge of the reason for profit or loss.

BUSINESS

#2561 Accounting II (11-12)**Elective****1 credit***

This elective helps the student to increase knowledge and skills acquired in Accounting I and apply these to the partnership form of business. It is specifically vocational and career-oriented and designed for the student who wishes to either work in accounting after graduation or major in a business field in college.

Prerequisite:

- **Successful completion of Accounting I.**

#2562 Accounting III (12)**Elective****1 credit****

The focus of this elective is on applying the knowledge and skill acquired in Accounting I and II to the corporate form of business. It also includes accounting concepts and procedures for depreciation, inventory control, and uncollectible accounts receivable. Finally, the student will learn an automated accounting system that incorporates all the accounting procedures for a proprietorship, partnership, and a corporation (recording transactions, posting, and running reports) automatically. It is designed for the student who wishes to work in accounting or major in a business field in college.

Prerequisite:

- **Successful completion of Accounting II.**

#2570 Entrepreneurship (11-12)**Elective****1 credit**

Students will create their own fictitious corporation. Their corporation will design, advertise, and sell a product or service. Students will study the buying and selling of stock options and how to acquire a loan to start their business. The course will cover current economic and business issues.

Cooperative Education

#2580 Theory Class (12)**Required for Co-op students****0.5 credit**

The Cooperative Education Theory Class is offered and **mandatory** for all Cooperative Education students. This course prepares students to develop marketable occupational skills, provides occupational training opportunities, increases job skills through individualized study in the classroom, encourages attitudes and habits that meet acceptable employment standards, and provides the opportunity for career investigations. Participating in Cooperative Education, Managing Your Income, Skills for Success, Career Planning, The Job Hunt, and Job Satisfaction are the topics discussed in the Theory class. "Learning by doing" is the key to Cooperative Education.

BUSINESS

Cooperative Education

#2581 Work Experience DOE (12)

Elective

1 credit

Cooperative Education Work Experience (Diversified Occupation Education) is a planned, instructional program developed through a signed cooperative arrangement among school representatives, students, parents and employers. The purpose of this program is to provide students with an opportunity to alternate in-school academic and vocational instruction with entry-level paid employment in the occupation of their choice. The students' total occupational work experience is planned, coordinated and supervised by the school coordinator in close cooperation with the employer.

Prerequisites:

- **Completion of application.**
- **Approval by cooperative education teacher, guidance counselor, and principal.**
- **Employed in the afternoon, evenings, and/or weekends with 15+ hours of work per school week.**
- **Completion of Graduation Project prior to the start of Co-Op.**

Cooperative Education

#2582 Theory Class (12)

Required for Co-op students

1 credit

The Cooperative Education Theory Class is offered and **mandatory** for all Cooperative Education students. This course prepares students to develop marketable occupational skills, provides occupational training opportunities, increases job skills through individualized study in the classroom, encourages attitudes and habits that meet acceptable employment standards, and provides the opportunity for career investigations. Participating in Cooperative Education, Managing Your Income, Skills for Success, Career Planning, The Job Hunt, and Job Satisfaction are the topics discussed in the Theory class. "Learning by doing" is the key to Cooperative Education.

Cooperative Education

#2583 Work Experience DOE (12)

Elective

2 credits

Cooperative Education Work Experience is a planned, instructional program developed through a signed cooperative arrangement among school representatives, students, parents, and employers. The purpose of this program is to provide students with an opportunity to alternate in-school academic and vocational instruction with entry-level paid employment in the occupation of their choice. The students' total occupational work experience is planned, coordinated and supervised by the school coordinator in close cooperation with the employer.

Prerequisites:

- **Completion of application.**
- **Approval by cooperative education teacher, guidance counselor, and principal.**
- **Employed in the afternoon with 15+ hours per school week.**
- **Completion of Graduation Project prior to the start of Co-op.**

COMPUTER SCIENCE

#2420 Computer Science I: C++ Intro to Programming (10-12)

Elective

1 credit*

Computer Science I is designed to develop critical thinking and problem solving skills. Computer programming using the C++ programming language is a part of the course. A variety of computer science topics are also introduced. Programming topics include: program design, input/output, decisions, repetition, and array structures. Computer Science topics include: computer number systems, recursive functions, Boolean algebra, bit strings, prefix/postfix/infix notation, digital electronics, and data structures.

Prerequisites:

- **Minimum grade of 80% in Honors Algebra and Honors Geometry; 90% in CP Algebra and CP Geometry.**

#2421 Computer Science II: Advanced C++ Programming (11-12)

Elective

1 credit*

Computer Science II is an advanced structured, procedural programming design course using the C++ programming language. Object oriented programming structure will be emphasized. Studying examples of code as well as daily projects, students will master programming in C++. Programming topics include: program design, data streams, recursion classes, data structures, and sorting/searching algorithms. Computer Science topics include: computer number systems, recursive functions, Boolean algebra, bit strings, prefix/infix/postfix notation, digital electronics, and data structures.

Prerequisite:

- **Minimum grade of 80% in #2420 Computer Science I.**

#2422 AP Computer Science A (12)

Elective

1 credit**

After a review of C++ programming, students will learn the Java programming language. Programming in an object-oriented environment is emphasized. Specific AP topics include: computer number systems, recursive functions, Boolean algebra, bit strings, prefix/postfix notation, digital electronics, and data structures. The course follows the syllabus set by the College Board for the Computer Science A curriculum.

Prerequisite:

- **Minimum grade of 80% in #2421 Computer Science II.**

#2435 Web Page Design I (11-12)

Elective

1 credit

The Web Page Design course includes networking, HTML, and design/structure of Web Pages. Projects will be assigned in an individual and team environment. Fundamentals of web page design and web site management will be addressed.

COMPUTER SCIENCE

#2437 Web Page Design II (12)

Elective

1 credit

An advanced course in Web Page Design using Macromedia Flash software.

Prerequisites:

- **Only admitted by teacher recommendation.**
- **Successful Completion of Web Page Design I.**

ENGLISH - LANGUAGE ARTS

#1110 Reading (7)

This course has a dual focus: an emphasis on study skills, as well as reading a wide variety of works of literature. Reading strategies will be taught and practiced when reading literature. Study skills units are designed to provide students with knowledge and strategies that will help them succeed in school with their content area subjects, and out of school with their everyday lives. Students also will be introduced to library use and research skills. Students will be encouraged to read a wide selection within the framework of Reading Workshop. Reading Workshop encompasses three components of adolescent reading growth: time to read, ownership, and written response to reading.

#1121 English (7)

This course focuses on the study of drama, mythology, short stories, poetry, nonfiction, and novels. Public speaking, vocabulary, and library research are also included. Writing is based on the literature and encompasses grammar, sentence structure, and spelling.

#1130 Reading (8)

This course will provide for student literacy development through a Reading Workshop format. Reading strategies will be taught and practiced when reading literature. Reading Workshop encompasses the three components of adolescent reading growth: time to read, ownership, and written response to the reading.

#1141 English (8)

Composition and interpretation of literature are stressed in 8th grade. The literature taught includes short stories, plays, novels and novellas. The study of vocabulary, public speaking and library research are also included. Writing is based on the literature and research and encompasses grammar, sentence structure, and spelling.

#2120 Honors English (9)

Required

1 credit*

The content of this course deals with myriad works of literature. Students will read and study selected novels, poetry, dramas, short stories, and essays. Grammar and vocabulary will also be studied in addition to the literature component. Students will focus on developing the art of independent literary analysis through the works of literature studied in this course. Course work will include class work, reading assignments, quizzes, and tests. However, the primary means of assessment for the honors classroom will be through written responses, both creative and formal.

#2122 English (9)

Required

1 credit

The content of this course deals with myriad works of literature. Students will read and study selected novels, poetry, dramas, short stories, and essays. Grammar and vocabulary will also be studied in addition to the literature component. Students will practice the art of literary analysis through the works of literature studied in this course. Course work will include class work, reading assignments, quizzes, tests, and essays.

ENGLISH - LANGUAGE ARTS

#2110 Reading/Writing Workshop (9)**Required****1 credit**

This required English course will give students practice in all the steps of the writing process, based on responses to literature as well as an opportunity to use word processing in a computer lab setting. The writing will include formal and personal essays, poetry, research, fiction and nonfiction with emphasis on reading and writing skills.

#2130 Honors English (10)**Required****1 credit***

This course is designed to introduce the student to the types of literature that reflect the legacy of American traditions – trends, themes, and issues that have occurred throughout our history. This course includes the study of short stories, poetry, novels, essays, oratory, drama, epic, legend, myth, and fable. Careful reading and interpretation of these types of literature are encouraged in this class. The course also includes composition and oral assignments as well as daily vocabulary and grammar exercises. A formal speech unit and research techniques will also be studied.

Honors English includes mandatory summer reading and writing assignments. Students are expected to be prepared for class discussion and testing on the literature.

#2131 CP English (10)**Required****1 credit**

This course is designed to introduce the student to the types of literature that reflect the legacy of American traditions – trends, themes, and issues that have occurred throughout our history. This course includes the study of short stories, poetry, novels, essays, oratory, drama, epic, legend, myth, and fable. Careful reading and interpretation of these types of literature are encouraged in this class. The course also includes composition and oral assignments as well as daily vocabulary and grammar exercises. A formal speech unit and research techniques will also be studied.

#2132 English (10)**Required****1 credit**

This course is designed to introduce the student to the types of literature that reflect the legacy of American traditions – trends, themes, and issues that have occurred throughout our history. This course includes the study of short stories, poetry, novels, essays, oratory, drama, epic, legend, myth, and fable. Careful reading and interpretation of these types of literature are encouraged in this class. The course also includes composition and oral assignments as well as daily vocabulary and grammar exercise. A formal speech and unit research techniques will also be studied.

#2140 Honors English (11)**Required****1 credit***

The content of this course deals exclusively with works of British literature. Students will read and study selected novels, poetry, dramas, short stories, and essays. Tests, quizzes, presentations, and writing assignments will be completed by all students. Grammar and vocabulary will also be studied in addition to significant research paper projects. Students will begin their research by utilizing library resources and later they will develop a thesis, create an outline, write to prove their thesis, and employ correct documentation.

Honors English includes mandatory summer reading and writing assignments. Students are expected to be prepared for class discussion and testing on assigned literature.

ENGLISH - LANGUAGE ARTS

#2141 CP English (11)

Required

1 credit

The content of this course deals exclusively with works of British literature. Students will read and study selected novels, poetry, dramas, short stories, and essays. Tests, quizzes, presentations, and writing assignments will be completed by all students. Grammar and vocabulary will also be studied in addition to significant research paper projects. Students will begin their research by utilizing library resources and later they will develop a thesis, create an outline, write to prove their thesis, and employ correct documentation.

#2142 English (11)

Required

1 credit

The content of this course deals exclusively with works of British literature. Students will read and study selected novels, poetry, dramas, short stories, and essays. Tests, quizzes, presentations, and writing assignments will be completed by all students. Grammar and vocabulary will also be studied in addition to significant research paper projects. Students will begin their research by utilizing library resources and later they will develop a thesis, create an outline, write to prove their thesis, and employ correct documentation.

#2150 Advanced Placement English (12)

Required

1 credit**

This AP Literature and Composition course places an emphasis on the analytical reading and writing of works from world literature past and present. A variety of genres will be represented in the literature, including novels, classical and modern dramas, poetry, essays, non-fiction works, and short stories. Grammar, vocabulary, and research techniques will be studied. Students will demonstrate the development of writing and speaking skills through their performance on tests, quizzes, presentations, and writing assignments. Students will reveal their knowledge of the research process as they write thesis-driven researched reports and a critical paper. This course is designed to prepare students for the AP Literature and Composition Test through discussion of the composition of the exam, procedures, and sample exercises.

Advanced Placement English includes mandatory summer reading and writing assignments. Students are expected to be prepared for class discussion and testing on the assigned literature.

#2151 CP English (12)

Required

1 credit

The focus on this course is on world literature and the social issues that these works suggest. A variety of genres will be represented in the literature, including novels, classical and modern dramas, poetry, and non-fiction works. Grammar, vocabulary, and research techniques will be studied. Students will demonstrate the development of writing and speaking skills through their performance on tests, quizzes, presentations, and writing assignments. Students will reveal their knowledge of the research process as they write thesis-driven researched reports and a critical paper.

ENGLISH - LANGUAGE ARTS

#2152 English (12)

Required

1 credit

The focus on this course is on world literature and the social issues that these works suggest. A variety of genres will be represented in the literature, including novels, classical and modern dramas, poetry, and non-fiction works. Grammar, vocabulary, and research techniques will be studied. Students will demonstrate the development of writing and speaking skills through their performance on tests, quizzes, presentations, and writing assignments. Students will reveal their knowledge of the research process as they write thesis-driven researched reports and a critical paper.

#2160 Writing Workshop I (10-12)

Elective

1 credit

This elective course is designed to expand composition work completed in English courses. Students will explore a variety of genres, including the formal and informal essay, poetry, drama, fiction, non-fiction, and review writing. Students will have the opportunity to prepare entries for various writing contests throughout the year.

#2161 Writing Workshop II (11-12)

Elective

1 credit

This elective course will be offered to students who have completed Writing Workshop I. In addition to exploring a variety of genre, students may complete assignments specifically designed to prepare for college writing.

#2170 Speech/Debate (10-12)

Elective

0.5 credit

This elective course introduces the principles of public speaking and the rules of formal debate. The students will write and present different types of speeches (informative, persuasive, etc.) to the class as well as focus on active listening and being a supportive audience.

#2175 Drama (10-12)

Elective

0.5 credit

This elective course introduces the art of oral interpretation (dramatic reading), acting and directing to students. Students will perform oral readings, skits, sketches, and self-selected scenes to the class.

#2010 Film as Literature (11-12)

Elective

0.5 credit

This is a reading and writing intensive course and not a "movie watching" class. Students will view several films to examine how cinema makes use of literary devices and concepts, such as dialogue, character development, and symbolism. The primary means of assessment for this course will be through written work such as creative assignments and critical essays.

#2020 Mythology Past and Present (11-12)

Elective

0.5 credit

This course will focus on the structure of mythology and its evolution over time. The concepts of heroes and villains will play a central role in the class. Topics that will be studied include ancient mythologies from Greece, Rome, Egypt, and Scandinavia. This course will also include studying contemporary mythologies found in film, television, literature, comic books, and manga. This course will require the reading of various materials and will be assessed through writing assignments and creative projects.

ENGLISH - LANGUAGE ARTS

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| #2190 SAT English Prep (10-11) | Elective | 0.5 credit |
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This course prepares the student to take the verbal and written section of the SAT. Emphasis is on vocabulary, essay writing, and grammar. Students will study the Greek and Latin prefixes, roots and suffixes, essay writing, and the conventions of language. Students will be given selections from practice tests to become familiar with SAT directions and the test format.

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| #2015 Contemporary Literature Circles (11-12) | Elective | 0.5 credit |
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This elective course will focus on contemporary novels and short stories. Through guided selected readings, students will review, compare, and critique various genres of literature. Book reviews, character studies, in-depth author research and classroom discussions will provide the assessment format. This will be a reading and writing intensive class, and students will be expected to monitor their progress in a reflective journal.

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| #2180 Journalism/Newspaper (9-12) GPA | Elective | 1 credit |
| #2181 Journalism/Newspaper (9-12) Non GPA | Elective | 1 credit |

Journalism is offered as an English elective that meets during the school day. Students plan, write, layout, and prepare the school newspaper for publication. . **(Note: Students selecting this course should consult their guidance counselor as to whether or not they should enroll as GPA credit students.)**

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| #2185 Journalism/Yearbook (10-12) GPA | Elective | 1 credit |
| #2186 Journalism/Yearbook (10-12) Non GPA | Elective | 1 credit |

Journalism is offered as an English elective that meets during the school day. Students plan, write, layout, photograph, and prepare the school yearbook for publication. **(Note: Students selecting this course should consult their guidance counselor as to whether or not they should enroll as GPA credit students.)**

FAMILY AND CONSUMER SCIENCE

Family and Consumer Science (8)

Rotation Course

This course gives an introduction to foods and cooking. Emphasis is placed in measuring, kitchen equipment, and safety.

#2736 Child Care & Development I (10-12)

Elective

1 credit

This is an elective course for those students planning to enter a field of child psychology, adolescent psychology, elementary education or child development (~~Career Center~~). The student will have access to hands-on experience as the course is taught in conjunction with childcare center(s) located in area. Prenatal development, physical and emotional growth of children, childhood diseases and medical care, and expense of child rearing will be emphasized.

#2742 Child Care & Development II (11-12)

Elective

1 credit

Students will build upon their knowledge of the theories of child development, needs, milestones, and factors that influence development from birth through age eight. This course will give students the opportunity to learn more about curriculum, assessment, and classroom management, while being introduced to the Pennsylvania State Standards for Education. Topics will include, but are not limited to, careers in child care and development, types of programs, environments, safety, child guidance, inclusive classroom practices, and cultural diversity.

Prerequisite:

- **Successful completion of Child Care & Development I.**

#2737 Creative Foods (10-12)

Elective

1 credit

This elective course will concentrate on developing personal skills of food preparation and knowledge of foods and nutrition. With emphasis on the food guide pyramid, students will study each group and prepare foods for sampling within that group. Additional areas of study include measuring and accuracy, food safety, food-related careers, use of appliances and equipment, and budgeting.

#2739 Interior Design (10-12)

Elective

1 credit

This course integrates the history of architecture, housing, elements of design, and decorating a room with hands-on projects generated by students and teachers. Through a variety of projects and study guides, students will be familiar with many contemporary decorating techniques, as well as have the background for more in-depth design projects. Some materials may need to be purchased by students.

#2726 Independent Living (10-12)

Elective

0.5 credit

The aim of this course is to better prepare students for self-dependence following high school. Included will be self-development through communication and decision-making skills with emphasis placed on developing a positive self-concept. Curriculum will include personal money management, use of credit, insurance, leases and contracts, warranties, financing of home and automobiles, banking skills, and management of various household expenses.

FAMILY AND CONSUMER SCIENCE

#2740 Cultural Diversity in Foods and Nutrition (10-12) Elective 1 credit

Students will study the cultural food habits of diverse nations based on their history, geography, and climate. The course will include social customs and communication styles of countries, in addition to their traditional food habits, and their modifications upon moving to the United States. A text, worksheets, teacher handouts, and research assignments will accompany cooking and tasting classes.

HEALTH & PHYSICAL EDUCATION

Students in grade 7 will no longer receive Health education. Beginning with the 2011-2012 school year, all grade 8 students will receive Health education.

#1810 Health (8)

The course focuses on what health is and how to maintain a high level of health. The following topics will be discussed in the course.

- Health and Wellness
- Mental Health
- Circulatory System
- Respiratory System
- Tobacco
- Alcohol
- Medicines and Other Drugs

#1820 Physical Education (7)

#1825 Physical Education (8)

Emphasis on skill development, particularly in the following team sports and activities:

- Soccer
- Tennis
- Lacrosse
- Speedball
- Softball
- Flag Football
- Basketball
- Volleyball
- Low organizational games

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| #2810 Physical Education (9) | Required | 0.5 credit |
| #2815 Physical Education (10) | Required | 0.5 credit |

Individualized skills are refined and developed in team sports while skills in individual sports are introduced. Safe play within the scope of game rules is emphasized in order to prevent accidents and injuries. Fitness testing is required in the fall and spring. Required for all 9th and 10th grade students.

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| #2805 Health (9) | Required | 0.5 credit |
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The course takes an in-depth look at fitness, nutrition, and sexual education throughout the lifespan. Special focus is given to projects that will build the skills necessary to make appropriate decisions to promote overall health. The goal of the class is to give students a base of practical information from which to build upon in each of the areas.

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| #2820 Physical Education (11) | Required | 0.5 credit |
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More advanced skills and movements are emphasized with focus on lifetime activities. An awareness of individual and leisure sports is stressed. Physical fitness testing is required in fall and spring. Required for all 11th grade students.

HEALTH & PHYSICAL EDUCATION

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| #2821 Health (11) | Required | 0.5 credit |
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This course emphasizes students' awareness of society's current health-related problems including STD's, human sexuality, and substance abuse. Major problems such as heart disease and cancer are studied in detail. Through class discussion students are urged to make mature decisions concerning smoking, the abuse of drugs, and the use of alcohol.

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| #2822 Physical Education (Career & Tech Students) | Required | |
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Students attending BCTC in grades 10 and 11 will no longer be able to schedule physical education and must complete independent physical education. Independent PE will be managed/overseen by the building principal or designee; however, completion of Independent PE requirements is the student's responsibility.

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| #2823 Health (Career and Tech Students) | Required | |
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Students attending BCTC in grade 11 will no longer be able to schedule health education 11, but are required to schedule and complete this course during their senior year.

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| #2830 Physical Education (12) | Required | 0.5 credit |
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This final year reinforces all activities including team, dual, individual and co-educational sports in order to appreciate sports and to become better spectators. Most emphasis is on leisure time activities; fundamentals are provided so students can select activities that will provide life-long recreational opportunities. Fitness testing is required in the fall and spring. Required for all 12th grade students.

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| #2840 Adaptive Physical Education (9-12) | Required | 0.5 credit |
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The adaptive program is a specialized division of the physical education program where students with physical limitations and disabilities that preclude them from regular gym classes will be scheduled. The diversified program will allow for individualized instruction and participation in specific activities to help each student achieve the maximum degree of physical fitness and skill level that he/she is capable of attaining.

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| #2845 Fitness for Life (10-12) | Elective | 0.5 credit |
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The course will focus on fitness through the lifespan. The primary focus of the course will be building a strong cardiovascular and muscular strength base. This includes weight training instruction, and cardiovascular fitness activities. Students will learn how to effectively use and implement a heart rate monitor. Attention will also be given to 'new games and adventure' activities that encourage physical movement. This course will build upon the concepts developed in the 9th grade health 'fitness' unit.
(Maximum 20 students per section)

MATHEMATICS - Grade 7

The Antietam School District has identified fundamental math concepts and understanding as a critical attribute necessary for our students to be successful on the state-mandated PSSA exams. To that end, beginning with the 2010-2011 school year, a significant change in the scheduling for students in grades 7 and 8 has been implemented. The changes will involve all students being assessed for proficiency and readiness for mathematics utilizing various student test data. Once identified, those students found to have a high level of proficiency and readiness will begin a two-year sequence of algebra in 7th grade and continue in grade 8.

All other students in grade 7 will be enrolled in a fundamental math concepts program. Students in grade 8 will also be enrolled in mathematics; however, they will be receiving instruction in Algebra I.

Please note: Beginning with the Class of 2014, all graduating students from ASD will be required to complete four (4) credits of mathematics for graduation.

#1415 Algebra I (7) - Part 1

This course, as part of a two-year sequence, offers a strong emphasis on the basic concepts of algebra. It introduces functions with a special emphasis on linear and quadratic functions. Lessons on probability, statistics, and data analysis will be introduced. Enhancement in using graphing calculators for problem-solving is also emphasized.

#1416 Pre-Algebra (7)

This course will focus on preparing students for Algebra. It introduces variables and equations building on previous skills learned. It emphasizes number operations, geometry, similarity, measurement, and data analysis. The use of calculators for problem-solving is an important aspect of the course.

MATHEMATICS - Grade 8

Beginning with the 2010-2011 school year, 8th grade students will be assessed for academic preparedness for algebra. Those students identified will be scheduled for Algebra I and one elective to be determined by the district. Effective with the 2010-2012 school year, identified students will be enrolled in Algebra I – part 2. All other students in grade 8 will be scheduled for Algebra I every day for one full block.

The District and mathematics department have recommended that all students purchase a calculator. Most math classes utilize a calculator daily; therefore, it becomes an important tool for class work as well as homework.

Students will be required to use calculators in other classes as well as on the PSAT, PSSA, and SAT examinations; therefore, it is recommended that the purchase of a TI 84 or TI 83 will provide the greatest amount of flexibility to cover all of these needs.

#1429 Algebra I (8) – Part 2

This course, as the second part of a two-year sequence, is a rigorous study of algebra. It introduces functions with a special emphasis on linear and quadratic functions. Also covered will be lessons in probability, statistics, and data analysis. Enhancement in using graphing calculators for problem-solving is also emphasized. Honors Algebra I will be teacher-recommended.

#1430 Algebra I (8)

This course offers a strong emphasize on the basic concepts of algebra. It introduces functions with a special emphasis on linear and quadratic functions. Lessons on probability, statistics, and data analysis will be introduced. Enhancement in using graphing calculators for problem-solving is also emphasized.

MATHEMATICS - Grades 9-12

Students are required to earn 3 credits in mathematics (4 credits beginning with the Class of 2014) to graduate within their academic years of 9th through 12th grades. The only classes that fulfill this requirement are: Algebra, Geometry, Integrated Mathematics III and Pre-Calculus. Other classes are electives and do not qualify towards a students' graduation requirements. Algebra I taken in 8th grade does NOT count towards one's graduation requirements, but does enhance a student's ability to elect more advanced math courses in high school.

Students' level placement is subject to change (up or down) due to performance within the classroom and/or PSSA examinations. Parents and students will be contacted about such changes prior to the start of the school year.

A math course is recommended for every senior regardless of post-high school plans. Students who score below the proficient level on the PSSA examination MUST take a senior math.

MATH TRACK

All students are required to take 3 years of math to graduate (4 credits beginning with the class of 2014). The following are possible tracks that a student may take in choosing math courses at Antietam.

| | | | |
|------------------------------|------------------------------|-----------------------------|---------------------|
| 9th Grade | Geometry | Geometry | Honors Geometry |
| 10th Grade | Algebra II | Algebra II | Honors Algebra II |
| 11th Grade | Foundations | Pre-Calculus Algebra III | Honors Pre-Calculus |
| 12th Grade | Foundations Math Elective | Calculus Math Elective | AP Math Elective |

#2454 Geometry (9)

Required

1 credit

This course develops the students reasoning and problem-solving skills as they study topics such as congruency and similarity, and apply properties of lines, triangles, quadrilaterals and circles. The student will also develop problem-solving skills by using lengths, perimeter, area, circumference, surface area and volume to solve real-world problems.

Prerequisite:

- **Successful completion of Algebra I.**

#2455 Honors Geometry (9)

Required

1 credit*

This course is a rigorous study of geometry. The course develops the students reasoning and problem solving skills as they study topics such as congruency and similarity, and apply properties of lines, triangles, quadrilaterals and circles. The student will also develop problem-solving skills by using lengths, perimeter, area, circumference, surface area and volume to solve real-world problems.

Prerequisite:

- **Successful completion of Algebra I and teacher recommendation.**

MATHEMATICS - Grades 9-12

#2443 Algebra II (10)

Required

1 credit

This course offers a strong emphasis on the basic concepts of the family of functions. They include linear, quadratic, exponential, logarithmic, radical, and rational functions. Functions will be represented in multiple ways. In addition to its algebra content, Algebra II includes lessons on probability and data analysis as well as numerous examples and exercises involving geometry and trigonometry.

Prerequisites:

- **Successful completion of Algebra I and Geometry.**

#2458 Honors Algebra II (10)

Required

1 credit*

This course is a rigorous study of the family of functions. They include linear, quadratic, exponential, logarithmic, radical, and rational functions. Functions will be represented in multiple ways. In addition to its algebra content, Algebra II includes lessons on probability and data analysis as well as numerous examples and exercises involving geometry and trigonometry.

Prerequisites:

- **Successful completion of Algebra I and Geometry along with teacher recommendation.**

#2485 Foundations (11-12)

Required or Elective

1 credit

This course provides students with a review of the concepts required on the PSSA test. Topics include: problems solving and critical thinking, set theory, logic, number representation and calculation, number theory and the real number system. Algebra equations and inequalities, Algebra graphs, functions and linear systems, consumer mathematics and finance management, measurement, geometry, counting methods and probability theory, statistics, mathematical systems, voting and apportionment, and graph theory.

11th grade – fulfills math requirement for those students who qualify.

Prerequisite:

- **Successful completion of Algebra II.**

#2480 Pre-Calculus (11-12)

Required or Elective

1 credit

Pre-Calculus is an algebra-based prerequisite for the study of calculus. This course includes a review of the properties and structure of the complex number system. Investigate the trigonometric functions, identifies applications of trigonometry and inverse trigonometric functions. The function concept is expanded to include inequalities, permutations, combinations, basic probability, sequences, series and representations of the conic sections are discussed.

NOTE: Seniors may take this course as a math elective if one has earned three math credits since 9th grade.

Prerequisite:

- **A grade of at least 80% in Algebra II, or**
- **Successful completion of Algebra III, or**
- **Teacher recommendation.**

MATHEMATICS - Grades 9-12

#2493 Calculus (12)

Elective

1 credit*

Calculus is meant for the college bound student who is not from our honors track and would like an intro to calculus before college. Included will be overviews of limits, continuity, derivatives, and integration.

Prerequisite:

- **CP Pre-Calculus.**

#2481 Honors Pre-Calculus (11)

Required or Elective

1 credit*

Honors Pre-Calculus is an algebra-based prerequisite for the study of calculus. This course includes a review of the properties and structure of the complex number system. Investigate the trigonometric functions, identifies applications of trigonometry and inverse trigonometric functions. The function concept is expanded to include inequalities, permutations, combinations, basic probability, sequences, series and representations of the conic sections are discussed.

NOTE: Seniors may take this course as a math elective if they earned three math credits since 9th grade.

Prerequisites:

- **A grade of at least 80% in Honors Algebra II, or**
- **Teacher recommendation.**

#2491 AP Calculus (12)

Elective

1 credit**

During the first semester of AP Calculus, a study of limits, continuity, procedures for determining derivatives of functions and applications of the derivative will occur. Included also is the study of anti-differentiation, the definite integral and techniques of integration are introduced. During the second semester, an introduction of logarithmic, exponential, and other transcendental functions will occur. Applications of the definite integral in finding areas and volumes are also studied. Integration using trigonometric substitution, partial fraction, and L'Hopital's Rule and slope fields are covered. The course covers all topics included in the AP Calculus AB curriculum. Students will be encouraged to take the AP test in the spring.

Prerequisites:

- **Honors Pre-Calculus or teacher recommendation.**

#2470 SAT Math (11)

Elective

0.5 credit

This course would count as a half credit elective for the junior who would want to improve their SAT score. The students will be utilizing on-line tests and instructions to accompany the SAT preparation.

MATHEMATICS - Grades 9-12

| | | |
|----------------------------------|-----------------------------|-----------------|
| #2445 Algebra III (11-12) | Required or Elective | 1 credit |
|----------------------------------|-----------------------------|-----------------|

This course will enhance the higher level thinking skills developed in Algebra II through a more in-depth study of those concepts and exploration of some pre-calculus concepts. Students in Algebra III will be challenged to increase their understanding of algebraic, graphical and numerical methods to analyze, translate, and solve quadratic, polynomial, rational, exponential, and logarithmic functions.

Prerequisites:

- **A grade of at least 70% in Algebra II, or**
- **Teacher Recommendation.**

| | | |
|---------------------------------|-----------------|-----------------|
| #2465 Business Math (12) | Elective | 1 credit |
|---------------------------------|-----------------|-----------------|

This course would count as a math elective for the student who wanted a fourth year of math but was not strong enough to take one of the other electives. This course will be available to students who might not be planning on college as their graduation plans. This course provides comprehensive coverage of personal and business-related math. The topics covered include salaries, home ownership, car buying, banking services, and insurance.

Prerequisite:

- **Successful completion of Foundations.**

| | | |
|---------------------------------|-----------------|-----------------|
| #2494 Statistics (11-12) | Elective | 1 credit |
|---------------------------------|-----------------|-----------------|

The statistics course ties together the principals of statistics with projects that support the concepts. The course reviews organizing data, averages, variation, and elementary probability. The course then expands into the various distributions and hypothesis testing. Much of the learning will be done with real world data and experimentation to support the basic concepts. Surveys, identifying misleading data, and confidence intervals will also be covered. Use of the statistics/graphing calculator is a requirement.

Prerequisite:

- **Successful completion of Algebra II.**

| | | |
|------------------------------------|-----------------|-------------------|
| #2495 AP Statistics (11-12) | Elective | 1 credit** |
|------------------------------------|-----------------|-------------------|

AP Statistics is a comprehensive course that starts with designing statistical study and understanding the various variables and interactions and their affect on the study's outcomes. The course then reviews organizing data, averages, variation, and elementary probability and then binomial probability distributions, normal distributions, and sampling distributions will be discussed. Also hypothesis testing, chi-square and F distributions, and non-parametric statistics will be introduced.

Projects that support the concepts will be done with the student responsible to demonstrate their mastery of the content knowledge. Use of the statistics/graphing calculators is a requirement. Students will be encouraged to take the AP exam in the spring.

Prerequisite:

- **Algebra II with an 80% or higher, or**
- **Teacher recommendation.**

MUSIC

Music (7)

Rotation Course

In this class, students will learn the elements of music, including: timbre, dynamics, rhythm, pitch, texture, and form. Students will also learn the instruments of music, including the history of their development, how they sound, and how to produce that sound. Students will be able to aurally (by sound) identify instruments, visually identify instruments, and produce sounds on some of the instruments.

Students will apply this knowledge to today's popular music, citing how modern musicians apply the elements of music and how they utilize instruments in their compositions.

Music (8)

Rotation Course

In this course, students will explore basic music theory, vocal technique, music history, and different styles of music. Using the knowledge gained in this course, students will be able to create and perform musical compositions, critique pieces of music using proper musical terminology, aurally identify elements of music, and sing with proper technique.

#1780 Junior High Chorus (7-8)

Students will prepare for the winter and spring concerts, graduation, and other musical events throughout the year. Students will learn proper vocal technique and appropriate performance etiquette. Open to students in grades 7 and 8.

#1790 Band – Concert and Marching (7-8)

Students will practice a wide variety of music, performing in a minimum of one parade and two seasonal concerts.

Prerequisite:

- **Students must have previous playing experience, either in school ensembles or with a private teacher. An audition may be required to properly assess the student.**

MUSIC

| | | |
|--|-----------------|-----------------|
| #2743 Performance Music (10-12) | Elective | 1 credit |
|--|-----------------|-----------------|

This class offers in-depth music study for performers. Students will explore elements of music literacy, critical listening and analysis, sight singing, and aural training. Students will prepare songs for regular public recital and receive intense instruction on stage performance, proper performance preparation, and recital etiquette.

Prerequisites:

- **Students must be able to read music and have previous performance experience, either in one of the school's performance ensembles or with a private music teacher.**
- **Students focusing on instrumental music must own a usable musical instrument and be able to transport it to and from school as needed. Students with electric guitars or basses must provide their own amplifier. Pianos will be provided for those whose primary instrument is the piano.**

| | | |
|---|-----------------|-----------------|
| #2744 Performance Music II (11-12) | Elective | 1 credit |
|---|-----------------|-----------------|

An advanced course in Performance Music with the instructor's recommendation.

| | | |
|---|-----------------|-----------------|
| #2745 Concert Choir (9-12) GPA | Elective | 1 credit |
| #2746 Concert Choir (9-12) Non-GPA | Elective | 1 credit |

Students will practice a wide variety of music, performing in a minimum of two seasonal concerts and graduation, as well as other performance opportunities. Students will be assessed via singing exams on progress made on the repertoire as well as participation in performance events

| | | |
|---------------------------------------|-----------------|-----------------|
| #2748 Music Technology (11-12) | Elective | 1 credit |
|---------------------------------------|-----------------|-----------------|

This class explores the realm of music technology via computers, keyboards, digital sequencing and looping, MIDI controllers, audio and digital recording instruments, and music software (Garage Band, Pro Tools, Ban-in-a-Box, Finale, Reason). Students will create original and modify/enhance existing pieces using technology listed above. Moderate understanding of music is preferred. All students will learn basic piano and music reading skills. **Experience in band/choir, Performance Music, or class piano (grades 10-12) are highly recommended** but not required prerequisites.

MUSIC

| | | |
|---|-----------------|-----------------|
| #2750 Concert/Marching Band (9-12) GPA | Elective | 1 credit |
| #2751 Concert/Marching Band (9-12) Non-GPA | Elective | 1 credit |

Students will practice a wide variety of music, performing in a minimum of one parade and two seasonal concerts. Students will be assessed via playing exams on progress made on the repertoire as well as participation in performance events.

Prerequisite:

- **Students must have previous playing experience, either in school ensembles or with a private music teacher. An audition may be required to properly assess the student.**

Exeter School District Marching Band - The new cooperative sports agreement with the Exeter School District also provides the opportunity for our instrumental students to participate with their marching band during the fall season. We encourage students to take advantage of this opportunity; however, students must be aware that their participation will also require taking part in their summer band camp. Students must be enrolled in either #2750 Concert/Marching Band (9-12) GPA or #2751 Concert/Marching Band (9-12) non-GPA if choosing to participate with the Exeter Marching Band.

| | | |
|----------------------------------|-----------------|-----------------|
| #2749 Class Piano (10-12) | Elective | 1 credit |
|----------------------------------|-----------------|-----------------|

Students will participate in group piano study, very similar to private piano lessons. Students will learn the basics of playing the piano, reading music, and music theory through hands-on and written work. Each student will participate in performances that the class puts on throughout the year. **(Maximum 13 students)**

SCIENCE – Grades 7-8

#1311 Science (7)

This required course encompasses six main topics in modern science including: Composition and structure of the universe, life science, agriculture and ecosystems, pest management, natural resources and waste management, and technology. Students are also introduced to basic laboratory procedures, techniques, and data analysis.

#1321 Science (8)

This required course is designed to address topics relating to earth science and physical science. The students will learn through discussion, demonstration, and laboratory experiments. Earth science will encompass weather, climate, atmospheric pressure, earth features, and processes that change the earth. Physical science will incorporate form of energy (electricity and magnetism), changes of state of matter, forces, and motion. Proper laboratory procedures and data analysis are introduced and practiced.

SCIENCE – Grades 9-12

All students in grades 9-12 are required to take three years of science to graduate. The following are possible tracks that a student may take in choosing science courses at Antietam.

Note: Biology, Chemistry, and Physics must be taken – no exceptions.

| | | | |
|------------------------------|---|--|--|
| 9th Grade | Biology I | Biology I | Honors Biology I |
| 10th Grade | Chemistry I Practical Applications of Science | Chemistry I Practical Applications of Science | Honors Chemistry I Practical Applications of Science |
| 11th Grade | Physics Practical Applications of Science | CP Physics Practical Applications of Science AP Biology I AP Biology II Anatomy & Physiology Advanced Chemistry II | Honors Physics Practical Applications of Science AP Biology I AP Biology II Anatomy & Physiology Advanced Chemistry II |
| 12th Grade | Forensic Science | Advanced Physics II Advanced Biology II AP Biology I AP Biology II Anatomy & Physiology Advanced Chemistry II Forensic Science | Advanced Physics II Advanced Biology II AP Biology I AP Biology II Anatomy & Physiology Advanced Chemistry II Forensic Science |

#2320 Honors Biology I (9)

Required

1 credit*

This biology course is designed to teach students about the processes of living organisms. (The class will focus on the scientific theory, cell anatomy and physiology, biochemistry, cell reproduction, genetics, classification, evolution, ecology, and current issues in biotechnology.) Knowledge of concepts will be gained through chapter readings, class discussions, laboratory projects, group projects, and a research project. This class is recommended for students with a high interest and aptitude in science.

Prerequisites:

- **A grade of 80% or higher in 8th grade science, or**
- **Teacher/administrative approval.**

#2322 Biology I (9)

Required

1 credit

This biology course is designed to teach students about the processes of living organisms. (The focus of this class is cellular biology, with an emphasis on cell anatomy, cell physiology, mitosis and meiosis, genetics, the kingdoms of living organisms, ecology, and evolution). Knowledge of concepts will be gained through chapter readings, class discussions, laboratory projects, and group projects.

SCIENCE – Grades 9-12

#2341 Advanced Biology II (11-12)

Elective

1 credit**

Advanced Biology is a high-level elective biology course designed for the student with a high aptitude and interest in the sciences and who is interested in pursuing a career in science. The main topics of this class include: biochemistry, cell structure and function, cell metabolism, chromosomal heredity, gene regulation, DNA technology, evolution, diversity of organisms, phylogenic classification, structure and function of plants and animals, populations, communities, and ecosystems. Class discussions and note-taking skills will be emphasized. **(Maximum 24 students)**

Prerequisites:

- **A grade of 80% or higher in 9th grade Biology and**
- **A grade of 80% or higher in Chemistry I, or**
- **Teacher/administrative approval.**

#2330 Honors Chemistry (10)

Required

1 credit*

This course is designed for students with high interest and ability in the math and science areas. It would be recommended for high achieving college bound students. The students will learn through discussion, demonstration, and laboratory experiments in the following topics: measurement, problem solving, matter, energy, atomic structure, chemical formulas, stoichiometry, chemical equations, electron configurations, periodic table, chemical bonding, phases of matter, and acids/bases. This class is math intensive.

Prerequisites:

- **A grade of 80% or higher in 9th grade Biology, or**
- **Teacher/administrative approval.**

#2331 Chemistry (10)

Required

1 credit

This course is designed for students with interest and ability in the math and science areas. It is recommended for college bound students. The students will learn through discussion, demonstration, and laboratory experiments in the following topics: measurement, problem solving, matter, energy, atomic structure, chemical formulas, stoichiometry, chemical equations, electron configurations, periodic table, chemical bonding, phases of matter, and acids/bases. This class is math oriented.

SCIENCE – Grades 9-12

#2340 Advanced Chemistry II (11-12)

Elective

1 credit**

This elective course is designed for students with high interest and ability in the math and science areas. It is highly recommended for students going into medicine, engineering, and other science related careers. The students will extend and intensify their learning from Chemistry I through discussion, demonstration, and laboratory experiments in the following topics: organic chemistry, biochemistry, acid and bases, stoichiometry, energy in chemical reactions, electronic structure, periodic properties, bonding, gas laws, chemical equilibrium, solutions, redox reactions, and analysis. **(Maximum 18 students)**

Prerequisites:

- **A grade of 80% or higher in Chemistry, or**
- **Teacher/administrative approval.**

#2342 Anatomy and Physiology (11-12)

Elective

1 credit**

This elective course is designed for the academic student planning a career in the health field or biological sciences. It involves an examination of the structure of the human body and how it functions. Dissection of a fetal pig through specimen, computer model, and /or video is used to study and compare mammalian anatomy. Discussions are held on current medical/biological studies. Students will also read scientific writings. **(Maximum 24 students)**

Prerequisites:

- **A grade of 75% or higher in 9th grade Biology and**
- **A grade of 75% or higher in 10th grade Chemistry, or**
- **Teacher/administrative approval.**

#2343 Advanced Physics II (11-12)

Elective

1 credit**

This elective course is designed for the student planning a career in a physics related field, including engineering, or one who has a special interest in this field of study. This course will focus on topics of increased complexity in mechanics and electricity, including construction of electronic devices, as well as an in-depth look at nuclear energy and the quantum theory. Students will observe and study physics phenomena through teacher led discussions, teacher demonstrations, laboratory experiments, and student-generated computer programs.

Computer programming will be strongly encouraged. The programs generated will be based on the individual student's programming experience. The students will be expected to analyze theoretical situations in physics using computer programming (as discussed), TI 83 graphic calculators, and mathematics, including algebra, geometry, trigonometry and some calculus. They will also be expected to apply the knowledge gained in this course to real life situations, which is ultimately the main goal of this course. Upon the completion of this course and in conjunction with the prerequisite course, the students will have a firm foundation in all aspects of physics. **(Maximum 18 students)**

Prerequisites:

- **A grade of 80% or higher in Honors or CP Physics, or**
- **Teacher/administrative approval.**

SCIENCE – Grades 9-12

#2350 Honors Physics (11)

Required

1 credit*

This course is designed to give students a broad overview of the vast realm of physics with an in-depth focus on topics in mechanics, waves, optics, electricity, magnetism, and nuclear energy. Students will observe and study physics phenomena through teacher led discussions, teacher demonstrations, laboratory experiments, and student-generated computer programs. The students will be expected to analyze theoretical situations in physics using computer programming, TI 83 graphic calculators, an mathematics, including algebra, some geometry, and some trigonometry. They will also be expected to apply the knowledge gained in this course to real life situations, which is ultimately the main goal of this course.

Prerequisite:

- **A grade of 80% or higher in 10th grade Chemistry or teacher/administrative approval.**

#2351 CP Physics (11)

Required

1 credit

This course is designed to give students a broad overview of the vast realm of physics with an in-depth focus on topics in mechanics, waves, optics, electricity, magnetism, and nuclear energy. Students will observe and study physics phenomena through teacher-led discussions, teacher demonstrations, laboratory experiments, and projects. The students will be expected to analyze theoretical situations in physics using mathematics, including algebra, some geometry, and some trigonometry. They will also be expected to apply the knowledge gained in this course to real life situations, which is ultimately the main goal of this course.

#2352 Physics (11)

Required

1 credit

This course is designed to give students a project based, broad overview of the vast realm of physics with an in-depth focus on topics in mechanics, waves, optics, electricity, magnetism, and nuclear energy. Students will observe and study physics phenomena through teacher led discussions, teacher demonstrations, and laboratory experiments. The students will be expected to analyze theoretical situations in physics. They will also be expected to apply the knowledge gained in this course to real life situations, which is ultimately the main goal of this course.

#2360 AP Biology I (11-12)

Elective

1 credit**

#2361 AP Biology II (11-12)

Elective

1 credit**

The AP Biology I and II courses give students an opportunity to experience course work equivalent to that in an introductory biology course at a four-year college or university, complete with laboratory work. In addition to teaching a higher level of content material, the development of critical and independent thinking is emphasized. Students will spend at least a strong percentage of the time in the laboratory, collecting and analyzing data, creating graphs, with extensive laboratory writing and peer review. It is highly recommended that students take the AP Biology exam in May at the completion of both of these courses.

Prerequisites:

- **85% or higher in 9th grade biology and 10th grade chemistry, or**
- **Teacher/administrative approval.**

SCIENCE – Grades 9-12

#2360 AP Biology I (11-12)

| | |
|------------------------------------|--|
| Chemistry and Biological Molecules | (Cellular organization and membranes) |
| Metabolism and Photosynthesis | (Cellular respiration) |
| DNA and Molecular Biology | (Cell division and mendelian genetics) |

#2361 AP Biology II (11-12)

| | |
|-----------------------------|-----------------------------------|
| Evolution | (Ecology) |
| Taxonomy and Classification | (Structure of plants and animals) |
| Comparative Anatomy | (Human system survey) |

#2362 Forensic Science (11-12)

Elective

1 credit

Forensic Science is an introductory course that focuses on the laboratory practices of the forensic scientist. It is a highly inquiry-based class that has the students using the scientific method to examine evidence found at crime scenes, including, but not limited to: fingerprints, hair, fibers, blood, and human remains. Also included are the methods of collecting evidence, the procedures for evaluating crime scenes as well as the analysis of documents and handwriting.

#2363 Practical Applications of Science (10-12)

Elective

1 credit

Practical Applications in Science is a predominantly hands-on course that will cover general concepts of all sciences through topics such as construction mechanics/materials, transportation methods, scientific instruments, invention, nutrition, farming/agriculture along with any other relevant topics as the student works on a class-culminating project.

SOCIAL STUDIES

#2231 CP Economics (11)**Required****1 credit**

CP Economics first deals with an in-depth look at micro and macro economics. Topics range from the creation of a small business to the complexities of the Federal Reserve. Secondly, the course will concentrate on current events through various media sources.

#2232 Economics (11)**Required****1 credit**

This course spends time focusing on larger concepts and key ideas of micro and macro economics. The course also contains a current events portion where students will utilize news outlets to stay current on world events.

#2240 Honors American Government (12)**Required****1 credit***

This is an in depth study of American Government and politics, including the social problems and current events which surround it. Students will engage in simulated projects and may participate in field trips, which stress the concept of federalism.

#2241 CP American Government (12)**Required****1 credit**

This is a course of study of American Government and politics and the current events which surround it. Students will engage in simulated projects and may participate in field trips, which stress the concept of federalism.

#2242 American Government (12)**Required****1 credit**

This course is a general overview of the Political process. Students may participate in field trips, which stress the concept of federalism.

#2252 Psychology (11-12) ***Elective****1 credit**

This course provides an introduction to psychology including: the history of psychology identifying the different schools of thought and their founders, focusing on the differences of each. Sensation and perception will be studied as well as abnormal psychology and human biology. This course is intended as an eleventh and twelfth grade college preparatory course and is formatted to be an introduction to the science of psychology. * ***This course not offered in 2011-2012.***

#2254 Sociology (11-12)**Elective****1 credit**

This course is an elective for 11th and 12th grade students as a college preparatory course and is formatted to be an introduction to sociology. Sociology is the study of social life, social change, and the social causes and consequences of human behavior. Sociologists investigate the structure of groups, organizations, and societies, and how people interact within these contexts. * ***This course is offered in 2011-2012.***

SOCIAL STUDIES

#2250 AP American History (11-12)**Required****1 credit****

A college-level course reserved for those students who have distinguished themselves as the highest academic achievers of their class, as determined by their overall grade point average. This course is designed to help prepare the student for the U.S. History Advanced Placement Test, which is a rigorous 3-hour examination.

The AP US History course, as defined by The College Board, is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and materials in US history. The program prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by full-year introductory college courses.

TECHNOLOGY

Technology Education (7)

Rotation

Instruction will include exploratory experiences in these technological systems:

- Communication** The ways that people create, store, and transmit information.
- Transportation** The ways that people use technology to physically move materials, goods, and people.
- Manufacturing** The ways that people produce goods.
- Construction** The ways that people build structures on sites.

Safe use of materials, equipment, and machines will be stressed.

Technology Education (8)

Rotation

This course is an extension of technology Education 7 and will serve to continue the development of skills introduced in that course.

#2434 Digital Media I (10-12)

Elective

1 credit

Digital media is designed to introduce students to a wide variety of media production technologies and techniques. Computer and print presentations will be used to demonstrate technical skills. The equipment used will include computers, digital cameras, printers, video cameras, and a variety of presentation systems. Software utilized in the course will introduce students to scriptwriting, storyboarding, image manipulation, sound editing, and video editing applications.

#2436 Digital Media II (11-12)

Elective

1 credit

An advanced course in Digital Media with the instructor's recommendation.

#2729 Video Production (11-12)

Elective

1 credit

This course explores digital communication and production through video. It builds on the foundation established in Digital Media. Focus will be on pre-production and post-production techniques. **(Maximum 12 students)**

Prerequisite:

- **Digital Media.**

#2735 CAD Technology (10-12)

Elective

1 credit

This course will combine the use of the computer aided design software and different projects in the wood shop. Students will be introduced to CAD, being able to define and utilize the different functions of the program. Students will link their work of computer drawings and dimensions into actual wood projects.

Prerequisite:

- **Basic experience with computers.**

TECHNOLOGY

#2734 Introduction to Stagecraft (10-12)

Elective

1 credit

Introduction to methods, materials, equipment, facilities, and concepts used in scenery construction for the theater. In addition, students will touch on the art of costume making and makeup techniques. Students will also gain practical experience with drama club and musical productions.

WORLD LANGUAGES

#1616 Exploratory German (7)

#1615 Exploratory Spanish (7)

Basic daily vocabulary is stressed by conversational instruction. Some cultural material is included. The course introduces each language so that students may have some exposure to each language before selecting one for concentrated study in 8th grade.

#1620 German I (8)

#1625 Spanish I (8)

This introductory course begins with the development of basic skills (understanding, speaking, reading, and writing). An emphasis is provided for accurate Spanish/German pronunciation, rhythm, and tone. Introductions to culture, geography and customs are offered. All students will take the second year of their chosen language in 9th grade.

#2610 Spanish I (10-12)

#2630 German I (10-12)

Elective

1 credit

These introductory courses begin with the development of basic skills (understanding, speaking, reading, and writing). An emphasis is provided for accurate Spanish/German pronunciation, rhythm, and tone. Introductions to culture, geography and customs are offered.

#2614 Spanish II (9)

#2634 German II (9)

Required

1 credit

The second year retains a continued stress on accuracy of pronunciation, conversation, and communication of ideas. Review and further development of structural patterns are also stressed. Students are encouraged to use the foreign language in class. *All 9th grade students will take the Level II World Language of their choice. Exceptions to this rule will be made only with administrative approval.

Prerequisite:

- **Minimum grade of 70% in Spanish I or German I.**

#2615 Spanish II (10-12)

#2635 German II (10-12)

Elective

1 credit

The second year retains a continued stress on accuracy of pronunciation, conversation, and communication of ideas. Review and further development of structural patterns are also stressed. Students are encouraged to use the foreign language in class.

Prerequisite:

- **Minimum grade of 70% in Spanish I or German I.**

WORLD LANGUAGES

#2620 Spanish III (10-12)
#2640 German III (10-12)

Elective

1 credit*

In the third year there is a continued development of speaking skills with an emphasis on advanced grammatical construction. Additional practice in listening, reading, and writing in the foreign language occurs. Study of contemporary Spanish/German life is given more attention here. Second year study is a prerequisite.

Prerequisite:

- **Minimum grade of 70% in Spanish II or German II.**

#2625 Spanish IV (11-12)
#2645 German IV (11-12)

Elective

1 credit**

This fourth year continues the development of speaking and listening skills. There is a continuing emphasis on the improvement of reading and writing skills. An increased awareness of the significance of cultural, geographical, and historical events on the language is also introduced.

Prerequisite:

- **Minimum grade of 70% in Spanish III or German III.**

#2626 Spanish V (12)
#2646 German V (12)

Elective

1 credit**

This fifth year sees extensive development of language skills with an emphasis on reading, oral discussion and written composition. Flexible choices from complete works or excerpts from classical and/or modern novels, plays, short stories, poetry, periodicals and/or newspapers are offered. Selections of materials are strongly influenced by student preference. A historical background of the language is also explained.

Prerequisite:

- **Minimum grade of 70% in Spanish IV or German IV.**

#2650 German Cultures (9-12)

Elective

1 credit*

This course is for students who participate in German-American Partnership Program in Germany. Requirements include three reports that must be completed and presented: cultural sight in Reading area, cultural sight in Munich or other parts of Germany, comparison of German culture to U.S. culture. All travel expenses are the student's responsibility.

Prerequisite:

- **Successful completion of Level I German.**

WORLD LANGUAGES

#2655 Spanish for Heritage Speakers Level I (10-12)

Elective

1 credit

Provides instruction directed at student's development of existing competences in the Spanish language. This introductory course ranges from learning grammar, spelling, developing specialized vocabulary through the study of other disciplines, to interpretation and analysis of different literary genres. Studies will also increase their awareness and appreciation of different Hispanic cultures. Spanish is used exclusively in the classroom.

Prerequisite:

- **Score intermediate level on proficiency test.**

INTERNSHIPS AND COLLEGE COURSES

Grades 10-12

Our school recognizes the importance of students experiencing career options prior to entering post-secondary education. To accommodate this, students are permitted to enroll in an intern program through our business education department. Intern programs are non-paid work experiences in which students observe careers in a place of business.

Some students exhaust our elective program in specific areas of career interest before their senior year of school. To assist these students, our school permits enrollment in college courses at local schools. Tuition and fees for courses such as these are the responsibility of the student; however, the school is continuing to work with local colleges to obtain reduced fees and tuition for our students.

Students interested in either of these programs should meet with their guidance counselor.

ON-LINE LEARNING

The Antietam School District has a cooperative agreement with the Berks County Intermediate Unit to allow for student enrollment in on-line courses. This program is provided to allow students in grades 11 or 12 with specific needs to schedule courses that are not offered at the Antietam School District. On-line courses provide an opportunity for students to explore individual areas of interest; however, dedication and self-discipline are critical to success in this program.

SERVICE LEARNING

Grades 9-12

COMMUNITY SERVICE CREDIT - This credit may help to encourage students to become involved in community service. It also gives schools an opportunity to serve the community. It offers students a chance to enhance their transcripts and to gain experience in the service fields for career selection.

Students may receive 1/4 credit for each 30 hours of community service beyond the regular school day. Proper documentation of hours donated will be required. A representative at the service agency will sign the documentation, and records of time per student will be kept at the school.

Volunteer hours and/or community service may qualify for a graduation project with pre-approval received from the student's faculty mentor.

**DUAL ENROLLMENT AGREEMENT
READING AREA COMMUNITY COLLEGE (RACC)
Grade 12**

Antietam High School and Reading Area Community College have entered into a dual enrollment agreement whereby students may earn college credit while they are still in high school. The 2011-2012 year will be the fourth year for this program and can service seniors who plan to reach beyond the traditional high school setting and complete coursework relevant to their futures.

DUAL ENROLLMENT – Participating students will receive credit at both Antietam High School and Reading Area Community College. High school graduation credit will be awarded and transferable college credit will be awarded from RACC.

TRANSFERABILITY – RACC maintains a number of articulation agreements with traditional four-year colleges and universities. Since these courses would be traditional college freshman selections, the transferability factor is high. However, students are encouraged to obtain verification by contacting the colleges and universities where they are interested in attending.

TUITION AND FEES – Tuition and fees are established by the community college and are subject to change. Students paid \$110 per credit to cover tuition and other fees during the 2011-2012 school year.

DUAL ENROLLMENT GRANT – During the 2010-2011 school year, ASD students who took dual enrollment courses were eligible for a grant to assist with the tuition. The school district has applied for a grant for the 2011-2012 school year.

TRANSCRIPTS AND GPA – The student transcript from Antietam School District will be entered as a “pass-fail” with no associated quality points for GPA. The student GPA will be calculated utilizing the credits achieved in the Antietam School District grades 9 – 11 and a class ranking based on this calculation will be established; however, that ranking will not be used in calculation for any graduation award including, but not limited to, valedictorian or salutatorian honors.

ENROLLMENT REQUIREMENTS – Students are encouraged to enroll in courses that meet the required courses for graduation from Antietam High School and/or enrichment courses that satisfy their future plans. Any course must be pre-approved through the guidance office.

Dual Enrollment students must arrange their own transportation to and from RACC. They are also responsible for meeting all senior obligations at Antietam High School and for staying apprised of senior class information and deadlines.

BERKS CAREER AND TECHNOLOGY CENTER

www.berkscareer.com

Grades 10-12

The Berks Career and Technology Center (BCTC) offers programs in 35 different career areas to students from 16 area school districts. Two campuses serve students in Berks County. The East campus is located in Oley and the West campus is located in Leesport. Students electing BCTC will take all required academic courses at the high school and attend one of the BCTC campuses for their technical program during part of the school day. Programs are designed for three years in length beginning in the 10th grade, however, 11th and 12th grade students may also begin a program. All programs are available to all students regardless of district location.

Laboratories equipped with computers, industrial machinery, and other state-of-the-art equipment provides hands-on training for students in addition to the academic component of each course of study. All curricula is competency based, allowing students to proceed at a rate that is best for them and tailored to meet their own career objectives.

There are many opportunities available for students enrolled in a BCTC program. All programs prepare students for immediate employment or higher education. Senior students who demonstrate a high level of competency in their program can participate in a supervised work-based learning experience. In addition, articulation agreements with the following post-secondary schools provide advanced credits or advanced placement: Berks Technical Institute, Northampton Community College, Northwestern College, Ohio Technical Institute, Pennsylvania College of Technology, Reading Area Community College, Thompson Institute, and Vale Technical Institute. Currently, all 35 BCTC programs have articulation agreements to offer students advanced credit at the post-secondary level to pursue a certificate, associate, or baccalaureate degree.

Medical Health Professions (12) – Application must be received by December of your junior year. See guidance counselor for more information.

BCTC, Penn State Berks, and The Reading Hospital and Medical Center are collaborating to offer an exciting Medical Health Professions Program for high school seniors. The program combines high-level academics with the opportunity to shadow healthcare professionals and earn college credits.

The program exposes high school seniors to various healthcare professions so they can make more informed decisions about their future education. Students will be enrolled in both Penn State Berks and BCTC for one year. The program runs for three hours each day, and then students return to their high schools.

Students will take chemistry and physiology courses at Penn State Berks two days per weeks. Health classes and shadowing healthcare providers at The Reading Hospital will take place the other three days of the week.

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Listed below are the programs available at the Berks Career and Technology Center.

BCTC students who plan to pursue post-secondary education (certificate, associate, or baccalaureate degree) should take a rigorous high school academic program in the areas of math, science, and English.

| Courses | EAST | WEST | BOTH |
|--|-------------|-------------|-------------|
| Advertising Art & Design | | WEST | |
| Automotive Collision Repair Technology | | | BOTH |
| Automotive Technology | | | BOTH |
| Building Construction Occupations | EAST | | |
| Cabinetmaking | EAST | | |
| Career Exploration (9 th Grade Program) | EAST | | |
| Carpentry | | | BOTH |
| Communications Media Technology | | WEST | |
| Computerized Machining Technology | | WEST | |
| Cosmetology | | | BOTH |
| Culinary Arts | | | BOTH |
| Dental Occupations | EAST | | |
| Diesel Technology | EAST | | |
| Drafting Design Technology | EAST | | |
| Electrical Occupations | | | BOTH |
| Electronic Technology | | WEST | |
| Graphic Imaging Technology | | WEST | |
| Health Occupations | | | BOTH |
| Health Related Technology | EAST | | |
| Heavy Equipment Technology | EAST | | |
| Heating, Ventilation, Air Conditioning/Refrigeration | | WEST | |
| Horiculture | EAST | | |
| Information Technology – Applications | | WEST | |
| Information Technology – Networking | EAST | | |
| Information Technology – Programming | | WEST | |
| Masonry | EAST | | |
| Mechatronics Technology | | WEST | |
| Medical Health Professions | EAST | | |
| Occupational Child Development | | | BOTH |
| Painting and Decorating | | WEST | |
| Photo Imagine Technology | | WEST | |
| Plumbing and Heating | EAST | | |
| Precision Machining Technology | | WEST | |
| Protective Services | | | BOTH |
| Recreational and Power Equipment Technology | | WEST | |
| Robotics and Automation Technology | | WEST | |
| Service Occupations | EAST | | |
| Welding Technology | | WEST | |

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APPLICATION PROCESS

Students apply for enrollment at BCTC through their guidance counselor. All student applications are sent to the BCTC where candidates from throughout the county are chosen. Each student application is reviewed according to the following criteria:

- **Student Interest** - The thoroughness of the application is viewed as a measure of the interest of the student applicant. Special attention is paid to what research was done to find information about the career area to which a student is applying.
- **Teacher Evaluation** - Students may request evaluations from junior or senior high school teachers of their choice.
- **Counselor Recommendation.**
- **School Citizenship** - *Student behavior and attitudes are noted.*
- **Attendance** - Students should have strong patterns of school attendance. Attendance is reviewed for patterns over a 3-year period.
- **Grades** - While grades are important, they are not the most critical item. Grades are reviewed over a 3-year period.
- **Aptitude** - Does the student possess the potential to be successful in the field?
- **Health** - While not restricting a student's selection, health concerns are a necessary consideration. Conditions such as color blindness, fear of heights, etc. will affect success in certain programs.

It is the policy of the Berks Career & Technology Center not to discriminate on the basis of sex, handicap, race, color or national origin in its educational and vocational programs, activities or employment, as required by Title IX, Section 504 and Title VI. Inquiries regarding compliance with Title IX, Section 504 or Title VI should be directed to the office of the Administrative Director at 1057 County Road, Leesport, PA 19533, (610) 378-4884.