

ANTIETAM MIDDLE SENIOR HIGH SCHOOL

Course Selection Guide 2022-2023



**ANTIETAM
SCHOOL DISTRICT**

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The Antietam School District is an equal opportunity education institution and employer and will not discriminate on the basis of race, color, national origin, sex, disability, age, religion, Veteran status, or any other legally protected classification in accordance with State and Federal laws, including Title VI, Title IX, or the American with Disabilities Act, Section 504. Complaints or questions should be directed to: Dr. H. Rochlin, Superintendent of Schools, Antietam School District, 100 Antietam Road, Reading, PA 19606-1018.

GENERAL INFORMATION

The 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).

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, and Reading/World Language.

All students in grades 9, 10, 11, and 12 are expected to enroll in a minimum of 7 credits per year.

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

	- 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				

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. 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. 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.

If a student does not complete make-up work prior to the end of a marking period, teachers may issue a grade of Incomplete. Students will be given a deadline by which they must complete their outstanding assignments.

Honor and Merit Roll Calculations: Marking period averages for honor and merit 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 and merit roll calculations, a credit value will be used for each course, each marking period, to determine the point value earned. The average of a student's grades, *including those earned for non-GPA courses* will be calculated for honor and merit roll as follows:

Course	Grade Mark		Credits Earned During Marking Period		Points
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 which are 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 merit roll.

Honor and merit roll criteria:

Honors designation: Grade average is $\geq 94.5\%$ (no grade • 80%)

Merit designation: Grade average is $\geq 89.5\%$ (no grade • 75%)

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. *Students who transfer to Antietam MSHS for their senior year will not be included in the class rank process.* 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			

Course	Grade Mark	Alpa Points	Credit	Weight	=	Quality Points
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 overall grade point average, all quality points are added together and divided by the total of all credits attempted.

Graduation Requirements:

Students are required to earn a total of 23.5 credits and 30 hours of community service for graduation.

Credits **must** include the following:

English - 4.0 credits
Social Studies - 4.0 credits (0.5 credit must be either Future Me or Entrepreneurship)
Math - 4.0 credits (3.0 credits if Proficient or Advanced on Algebra 1 Keystone)
Science - 3.0 credits (Biology 1.0 & Ecology 0.5)
PE - 2.0 credits
FCS 9- 0.5 credits
Health - 0.5 credits

Promotion Requirements:

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 every day per cycle.

Promotion in grades 9-12 is based on achieving credits toward graduation. Students who do not achieve the minimal number of credits will be retained by homeroom level.

Promotion to Grade 10	Earning 5 credits or more
Promotion to Grade 11	Earning 11 credits or more
Promotion to Grade 12	Earning 18 credits or more

Students who fail a required core course should attend summer school or enroll in a credit recovery program. Students must earn a minimum of 50% to be eligible for summer school or credit recovery. Otherwise, they must retake the course during the regular school year and must arrange to do so through the counseling office.

50% Policy: Students who receive a grade below 50% in any course(s) in the first marking period but demonstrate effort and improvement (60% or higher) in all subsequent marking periods, may have their 1st marking period grade updated to 50%. No changes will be made to the 1st marking period grades for students who fail to demonstrate effort and improvement.

Summer School: Students who fail a core subject class, and have earned at least a 50%, must either attend summer school or enroll in a credit recovery program. Students who fail with less than a 50% must repeat the course. In general, students who earn a failing grade will not be permitted to double up in core classes during the school year.

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:** 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 period of independent study as an aide in the library. This must be approved by the building principal.

- 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. For approval, students must petition the principal or designee. 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. Independent study courses that are approved for credit and/or GPA will not be graded as pass/fail.

GRADE LEVEL SCHEDULING PATTERNS - Grades 9-12

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

Grade 9

- English
- Algebra I/Geometry
- Biology
- Ecology (unless student demonstrates proficiency and is opted out)
- US PA History II
- Physical Education
- FCS
- World Language
- In addition, students may choose .5-1.5 credit of electives based upon their interest
- High School Health can be taken in grades 9, 10 or 11. Students planning to attend BCTC should schedule High School Health in grade 9.

Grade 10

- English
- Geometry/Algebra II
- Science (Chemistry, Concepts of Chemistry, Concepts of Physics, Forensics, Field Geology, AP Biology, Anatomy and Physiology)
- Global Studies
- Physical Education
- In addition, students will choose 2.5-3.5 credits of their electives based on interest and post-secondary plans.

- BCTC enrollment counts as 3 elective credits.

Grade 11

- English
- Pre-Calculus, Algebra II, Algebra III
- Science (Physics, AP Physics, Concepts of Physics, Forensics, Field Geology, AP Biology, Anatomy and Physiology)
- Entrepreneurship or The Future Me, Genocide Studies, Military History
- Physical Education
- In addition, students may choose 2.5-3.5 credits of electives based on interest and post-secondary plans.
- BCTC enrollment counts as 3 elective credits.

Grade 12

- English
- American Government
- Physical Education
- Practical Applications, Statistics, Calculus. A math course is recommended for every senior regardless of post-high school plans and is required unless proficiency is demonstrated by junior year on state mandated assessment
- In addition, students choose 3.5-5.5 credits of electives based on interest and post-secondary plans and depending upon Math requirements.
- BCTC enrollment counts as 3 elective credits.

*****Students enrolled in AP courses must take the AP exam in order to receive the AP course weighting (1.10). Otherwise, they will receive Honors weighting (1.05).*****

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) Addition of a course to meet graduation requirements.
- 3) Addition of a missing prerequisite.

In order to change a schedule, students must discuss the requested change with the school counselor and complete the necessary forms. 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 school.

CAREER PATHWAYS

In an effort to better support our students' post-secondary career plans, we have utilized the Berks County Career and Workforce/BCIU pathways to group the electives offered at the MSHS. Students are encouraged to take courses based on their interests in addition to those in their career pathway. Following are suggested, not required electives.

Arts and Communication

Related Careers: Teacher, Editor, Publications, Journalist, Illustrator, Artist, Musician, Performing Arts, Photographer, Graphic Designer, Chef

Performing Arts Pathway Electives Grades 9-12			
Band Chorus	Piano 1 Piano 2	Drama 1 Drama 2	
Guitar 1 Guitar 2	Music Technology 1 Music Technology 2	Writing Workshop 1 Writing Workshop 2	
Art and Design Pathway Electives Grades 9-12			
Art Exploration	Watercolor 1 Watercolor 2	Photography 1 Photography 2	Interior Design
Drawing I Drawing 2	Ceramics 1 Ceramics 2	Printmaking	Fibers
Painting 1 Painting 2	3D Design	Computer Graphics 1 Computer Graphics 2	Creative Foods
Journalism and Media Pathway			
World Language 1 World Language 2	Film Mythology	Drama 1 Drama 2	Genocide Studies
	Writing Workshop 1 Writing Workshop 2	Speech 1 Speech 2	Independent Living AP Literature and Composition

The following related programs are available at Berks Career and Technology Centers:

Advertising Art and Design Technology, Communication Media Technology, Graphic Imaging Technology, Photo Imaging Technology.

Business Finance and Informational Technology

Related Careers: Management, Finance, Accounting, Business Law, Entrepreneur, Computer/Information Technology, Web Developer, Video Game Engineer, Cyber Security, IT Technician

Business Finance Pathway Electives Grades 9-12			
World Language	Intro to Computer Science	Psychology	Independent Living
Entrepreneurship	AP Computer Science	Sociology	The Future Me
Writing Workshop 1 Writing Workshop 2	Design and Build	Speech 1 Speech 2	Music Tech 1 Music Tech 2

The following related programs are available at Berks Career and Technology Centers:

Business Management & Entrepreneurship, Computer Systems Networking & Security, IT Programming

Engineering and Industrial Technology

Related Careers: Aviation, Engineering, Architect, Construction, Engines, Carpentry, Fuel Technology, Computer Integrated Manufacturing

Engineering Pathway Electives			
Design and Build	AP Statistics	AP Computer Science	3D Design
AP Physics AP Calculus	Intro to Computer Science	AP Biology	Anatomy & Physiology
Industrial Technology Pathway Electives			
<p>Programs in this pathway are available at Berks County Career and Technical Centers for students in grade 10-12. Students should select their program of choice and submit their application in the fall of their 9th grade year.</p>			

The following related programs are available at Berks Career and Technology Centers:

Drafting Design Technology, Mechatronics Engineering Technology, Precision/Computerized Machining Technology, Robotics & Automation Technology, Welding Technology, Building Construction Occupations, Cabinetry & Wood Technology, Carpentry, Electrical Occupations, HVAC/Refrigeration, Masonry, Painting & Decorating, Plumbing & Heating, Heavy Equipment Technology, Automotive Collision Repair, Diesel Technology, Recreational & Power Equipment

Human Services

Related Careers: Psychologist, Social Worker, Military, Firefighter, Police, Lawyer, Cosmetologist, Funeral Director, Counselor, Horticulturist

Human Services Pathway Electives Grades 9-12			
World Language	AP Biology	Entrepreneurship	Writing Workshop 1 Writing Workshop 2
Sociology	Anatomy and Physiology	Forensics	
Psychology	Genocide Studies	AP Literature and Composition	Speech 1 Speech 2
	AP US History		

The following related programs are available at Berks Career and Technology Centers:

Cosmetology, Culinary Arts, Early Childhood Education, Horticulture, Protective Services (Law Enforcement and Homeland Security), Service Occupations

Science and Health

Related Careers: Biology, Marine Biology, Botanist, Environmental Science, Medicine, Nursing, Physical Therapist, Dentist, Nurse, Veterinarian, Medical Technician

Health Pathway Electives			
World Language	Anatomy and Physiology	AP Statistics	AP Literature and Composition
Anatomy and Physiology	Sociology	Writing Workshop 1 Writing Workshop 2	AP Calculus
AP Physics AP Biology	Psychology Forensics		Speech 1 Speech 2
Science Pathway Electives			
World Language	Anatomy and Physiology	Forensics	AP Statistics
AP Physics	Field Geology		AP Calculus
AP Biology			

The following related programs are available at Berks Career and Technology Centers:

Dental Occupations, Health Occupations, Medical Health Professions, Medical Information Technology, Sports Medicine Rehabilitative Therapy

Art

1511 Fine Arts 7

Rotation Course

Students receive 45 days of instruction in the following courses of study: Art, Geography, Music, and Technology Education. All courses are described within each department's course offerings.

1521 Fine Arts 8

Rotation Course

Students receive 45 days of instruction in the following courses of study: Art, Family and Consumer Science, Music and Technology Education. All courses are described within each department's course offerings.

2018 3-D Design (9-12)

Elective

0.5 credit

Provides a 3-dimensional approach to problem solving through various media including paper, cardboard, wire, metal, clay, and found objects.

2711 Art Exploration (9-12)

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 (9-12)

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

2722 Drawing II (10-12)

Elective

1 credit

An advanced course in drawing with successful completion of Drawing I or instructor recommendation.

2019 Fibers (9-12)

Elective

0.5 credit

Presents students with the historical and cultural backgrounds of fiber and textile media. Explore processes such as weaving, papermaking, dyeing, embroidery, and embellishment.

2713 Watercolor I (9-12)

Elective

0.5 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 (9-12)	Elective	0.5 credit
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An advanced course in watercolor with successful completion of Watercolor I or instructor's recommendation.

2714 Painting I (9-12)	Elective	1 credit
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This course is designed for the student with experience in and knowledge of drawing techniques. The student will learn how to paint with acrylic paints. Projects will be centered on both Contemporary and the Master Artists styles and reveal their purposes for painting.

2724 Painting II (10-12)	Elective	1 credit
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An advanced course in painting with successful completion of Painting I or instructor's recommendation.

2715 Photography I (9-12)	Elective	0.5 credit
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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 (10-12)	Elective	0.5 credit
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An advanced course in photography with successful completion of Photography I or instructor's recommendation.

2716 Pottery/Ceramics I (9-12)	Elective	0.5 credit
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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.

2710 Pottery/Ceramics II (9-12)	Elective	0.5 credit
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An advanced course in ceramics with the instructor's recommendation. This course will extend the learning of the artistic heritage and cultural development of clay as an art form and how it has evolved throughout history. The student will become more 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 more thoroughly. Students will create functional and decorative pieces using a variety of forms and glazing techniques. Self-expression and good craftsmanship will be emphasized.

Prerequisite: Successful completion of Pottery/Ceramics I or teacher recommendation.

2021 Printmaking (9-12)**Elective****0.5 credit**

Encompasses drawing, design, multiples, sequences, and overlays. Introduces students to the history of printmaking and various techniques including monotypes, relief, intaglio, and image transfer while focusing on composition and layout design.

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.

2727 Computer Graphics II (11-12)**Elective****1 credit**

This course provides students the opportunity to expand their knowledge of the fundamentals of both Photoshop and Illustrator allowing the student to further explore all of the potentials of raster and vector-based digital imagery. The students will be introduced to new tools, techniques, and potential applications, while creating new and exciting advanced projects.

Prerequisite: Successful completion of Computer Graphics I.

ENGLISH - LANGUAGE ARTS

1145 Academic Literacy 7

This literacy course rotates among four major content areas: English, social studies, math and science. Each quarter will continue to build students' skills in reading varied texts, comprehending and collaborating across texts, and learning academic content through reading and writing.

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.

1135 Reading 8

This course will provide for student literacy development through a Reading/Writing Workshop format. Both reading and writing strategies will be taught and practiced through responses to literature and non-fiction text. The workshop format encompasses the three components of adolescent reading and writing time to read, ownership, and written response.

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

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

Prerequisite: Students registering for Honors English 9 must have earned a minimum grade of 90% in English 8 or received a recommendation from their English 8 teacher.

2122 Academic 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 short essays and longer writing assignments. Course work will include class work, reading assignments, quizzes, tests, and essays.

2130 Grade 10 Honors American Literature

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. Research techniques will be studied, and preparation for the Keystone exam will be provided.

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

Prerequisite: Students registering for Grade 10 Honors American Literature must have earned a minimum grade of 85% in Honors English 9 or received a recommendation from their English 9 teacher.

2132 Grade 10 American Literature**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. Research techniques will be studied, and preparation for the Keystone exam will be provided.

2140 Grade 11 Honors British Literature**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.

Prerequisite: Students registering for Honors English 11 must have earned a minimum grade of 85% in Honors English 10 or received a recommendation from their English 10 teacher.

2142 Grade 11 British Literature**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 Literature and Composition**Required****1 credit****

This AP English 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 demonstrate their knowledge of the research process as they write a thesis-driven research report in APA style and a critical paper in MLA style. This course is designed to prepare students for the AP English Literature and Composition Test through discussion of the composition of the exam, procedures, and sample exercises.

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

Prerequisite: Students registering for Advanced Placement Literature and Composition must have earned a minimum grade of 85% in Honors English 11 or received a recommendation from their English 11 teacher.

2152 Grade 12 World Literature**Required****1 credit**

The focus of 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 demonstrate their knowledge of the research process as they write a thesis-driven research report in APA style and a critical paper in MLA style.

2145 Honors English 12**Required****1 credit**

The Honors World Literature course places an emphasis on analytical reading and writing of works from world literature past and present. A variety of genres will be represented in literature, novels, classical and modern dramas, poetry, and nonfiction 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 demonstrate their knowledge of the research process as they write a thesis-driven research report in APA style and a critical paper in MLA style. Grade 12 Honors World literature includes mandatory summer reading and writing assignments. Students are expected to be prepared for class discussion and testing on the assigned literature.

Prerequisite: Students must have earned a minimum grade of 85% in Honors English 11 or received a recommendation from their English 11 teacher.

2160 Writing Workshop I (9-12)**Elective****0.5 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, business, and review writing. Students will have the opportunity to prepare entries for various writing contests throughout the year.

2161 Writing Workshop II (9-12)**Elective****0.5 credit**

This elective course will be offered to students who have successfully 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 I (9-12)**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.

2171 Speech/Debate II (9-12)**Elective****0.5 credit**

This elective course will be offered to students who have successfully completed Speech/Debate I. Building on the fundamentals of public speaking; this class will give students a chance to further practice and develop their own speeches while advancing their verbal and written communication skills.

2175 Drama I (9-12)**Elective****0.5 credit**

This elective course introduces students to the elements of the theater, including acting, directing, and costuming as well as set design. With a focus on classroom trust, students will perform poetic readings, impromptu skits, self-selected scenes, and other dramatic works. Script writing is also an important piece.

2176 Drama II (9-12)**Elective****0.5 credit**

This elective course will be offered to students who have successfully completed Drama I. Building on the fundamentals of theater, this class will give students a chance to further practice and develop their own acting while advancing their verbal and written communication skills. This elective course extends learning in 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 (9-12)**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 (9-12)**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.

FAMILY AND CONSUMER SCIENCE

1523 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.

2753 Family and Consumer Science (9)**Required****0.5 credit**

This course focuses on giving students an introduction to consumer behavior, budgeting and personal finance management as well as the importance of families and the family life cycle in the development of children.

2737 Creative Foods (9-12)**Elective****0.5 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 and Fashion (9-12)**Elective****0.5 credit**

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

2726 Independent Living (9-12)**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.

HEALTH & PHYSICAL EDUCATION

Students in grade 7 will receive Health and Physical Education. Students in grade 8 will receive Physical Education.

1815 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.

- Social Health
- Bullying
- Conflict Resolution

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

2810 Physical Education (9)**Required****0.5 credit****2815 Physical Education (10-12)****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 students in grades 9-12.

2821 High School Health (9 - 12)**Required****0.5 credit**

This course emphasizes awareness of current health-related topics such as:

- Health Care
- Dating Violence
- Overcoming Adversity
- Pregnancy
- Organ Donation Awareness
- STDs/ HIV / AIDS

Note: Students planning to attend BTC will be required to schedule and complete this course during their 9th grade year. It is recommended that all students schedule this course during 9th grade if possible.

2845 Fitness for Life (10-12)**Elective****0.5 credit**

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.

2850 Advanced Physical Education (11-12)**Elective****0.5 credit**

This course is designed for competitive students to take the concepts learned in previous Physical Education classes and build upon those fundamentals. The focus of the class will be on both team and individual games. An emphasis will be placed on game strategy, offensive / defensive concepts, and team building. The concepts taught will be used in competitive game-like situations. To be eligible students will need to have completed the previous year's Phys Ed class with a 90% or higher grade and a Phys Ed teacher's approval

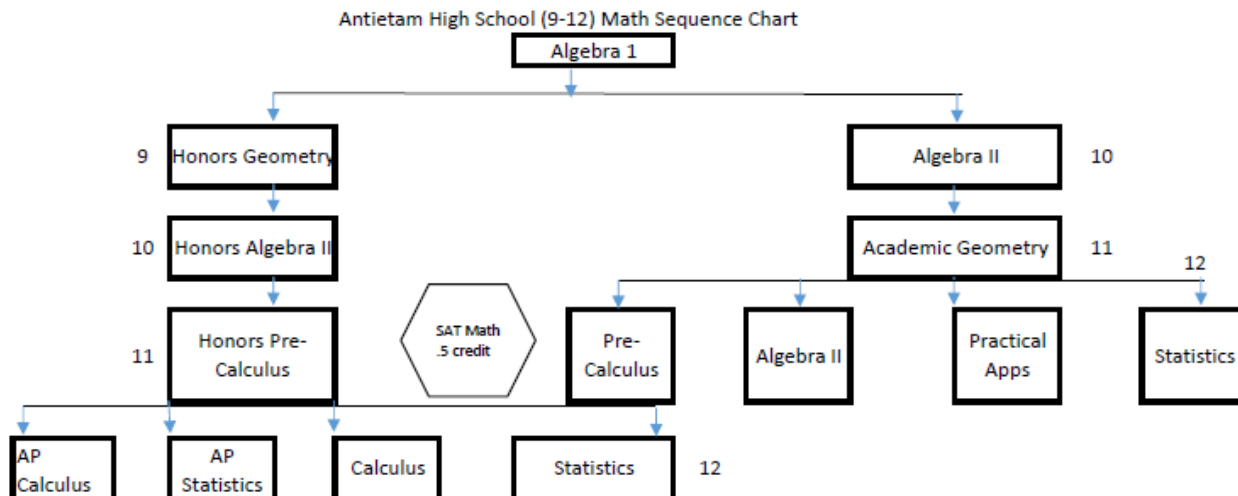
MATHEMATICS

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 students will be 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 with a continuation in Algebra I in grade 9.

The District and mathematics department recommend 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.



1415 Pre-Algebra (7)

This course, as part of a two-year sequence, offers a strong emphasis on the basic concepts of algebra. Lessons on geometry concepts, ratios, proportions, exponents, expressions and equations will be emphasized. It introduces functions with a special emphasis on linear and growth and decay functions. Enhancement in using graphing calculators for problem-solving is also emphasized.

1410 Math (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.

1430 Math (8)

This course, as part of a two-year sequence, offers a strong emphasis on the basic concepts of algebra. Lessons on probability, ratios, proportions, exponents, expressions and equations will be emphasized. It introduces functions with a special emphasis on linear and growth and decay functions. Enhancement in using graphing calculators for problem-solving is also emphasized.

1429 Algebra I (8)

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.

Students must achieve a minimum grade of 80% in Pre-Algebra 7 in order to take this course

In order to graduate, students are required to earn 4 credits in mathematics within their academic years of 9th through 12th grades. The only classes that fulfill this requirement are: Algebra, Geometry, Practical Applications,

Statistics and Pre-Calculus/Calculus. 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. 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 state mandated assessments, by their junior year, **MUST** take a senior math.

2442 Algebra I (9)	Required	1 credit
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This course, as the second part of a two-year sequence, is a rigorous study of algebra and will culminate in the state-mandated Algebra 1 Keystone assessment. 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.

2454 Academic Geometry	Required	1 credit
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This course develops the students' reasoning and problem-solving skills as they study topics such as congruence 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.

2455 Honors Geometry	Required	1 credit*
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This course is a rigorous study of geometry. The course develops the students' reasoning and problem solving skills as they study topics such as congruence 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: Students need to earn a minimum grade of 80% in Honors Algebra I or teacher recommendation.

2443 Academic Algebra II	Required	1 credit
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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

2458 Honors Algebra II	Required	1 credit*
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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.

Prerequisites: Students must earn a minimum grade of 80% in Honors Algebra I and Honors Geometry or teacher recommendation.

2480 Pre-Calculus (11-12)	Required or Elective	1 credit
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Pre-Calculus is a challenging course designed to prepare students for Calculus and advanced mathematics in post-secondary education. The course introduces transcendental functions including logarithmic and trigonometric functions, yet not as intensive as the Honors course.

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 and Geometry**
- **Successful completion of Honors Algebra II, or**
- **Teacher recommendation.**

2493 Calculus (12)	Elective	1 credit*
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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: 80% in Pre-Calculus or teacher recommendation

2481 Honors Pre-Calculus (11)	Required or Elective	1 credit*
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Honors Pre-Calculus is a rigorous course designed to prepare students for AP Calculus and advanced mathematics in post-secondary education. The course introduces transcendental functions including logarithmic and trigonometric functions.

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

Prerequisites: A minimum grade of 80% in Honors Algebra II, or teacher recommendation

2491 AP Calculus (12)	Elective	1 credit**
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AP Calculus is a rigorous course designed to prepare students for the Calculus AB Advanced Placement Exam in early May. The course covers three major studies of Calculus: limits, differentiation, and integration. Standards for the course are dictated by the College Board which is responsible for creating and implementing the AP test. Students are NOT mandated to take the AP test, but they are encouraged to do so.

Prerequisites: 85% in Honors Pre-Calculus or teacher recommendation.

2445 Algebra III (11-12)	Required or Elective	1 credit
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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 Practical Applications of Math (12)**Elective****1 credit**

This course would count as a math elective for the student who wanted or needed a fourth year of math. This course provides comprehensive coverage of personal and business-related math. The topics covered include:

- Salaries
- Home Ownership
- Car Buying
- Insurance
- Gross Pay
- Net Pay (including all tax information)
- Banking Services
- Loans and Credit Cards
- Sales Tax Unit Prices
- Comparative Shopping
- Investments

Prerequisites: Successful completion of Geometry or teacher recommendation

2494 Statistics (12)**Elective****1 credit**

The statistics course ties together the principles 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: Students must earn a minimum grade of 75% in Geometry and Algebra II or teacher recommendation.

Elective**1 credit****

2495 AP Statistics (12)

AP Statistics is a comprehensive course that starts with designing statistical study and understanding the various variables and interactions and their effect 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: Students must achieve a minimum grade of 85% in Algebra II and Geometry or earn a minimum grade of 80% in Honors Algebra II or teacher recommendation.

MUSIC

1515 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.

1531 Music (8)

Rotation Course

In this course, students will explore basic music theory, music history, world music, and the elements of music through guitar playing. Students will learn proper playing position, strumming techniques, finger picking, and melodic playing in first position. 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 play the guitar with proper vocal technique.

1780 Junior High Chorus (7-8)

Students will prepare for the winter and spring concerts 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 Concert/Marching Band (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.

2745 Concert Choir (9-12)

1 credit

Students will learn proper vocal technique and appropriate performance etiquette. Students will practice varied repertoire of music spanning historical time periods and genres of music. Students will prepare for the Pops, Winter, and Spring Concerts as well as community/extracurricular events such as the Tree Lighting and the National Anthem at sporting events

2748 Music Technology 1 (9-12)

Elective

0.5 credit

In Music Technology students will learn the ins and outs of the modern Music Industry and take a hands-on approach to creating digital music through Garageband. Throughout the course of the year students will study the major producers of our time and become producers themselves. Students will learn rhythmic composition and basic music theory as well as basic piano keyboard skills.

2749 Music Technology 2 (9-12)

Elective

0.5 credit

Students will continue to build upon the concepts from Music Technology 1 with more intricate song composition and form. More detailed mastering and mixing techniques and continued instruction in music theory and the production process.

Prerequisite: must pass Music Technology 1 to be eligible for Music Technology 2.

2750 Concert/Marching Band (9-12)	Elective	1 credit
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2751 Concert/Marching Band (9-12)	Elective	.5 credit
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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.

2746 Piano Class 1 (9-12)	Elective	0.5 credit
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This class is designed for the beginning piano student. The course is structured in a similar fashion to private group piano lessons. Each student will learn the basics of playing the piano through group instruction and personal practice time. Students will work on developing skill and proper playing technique through practicing songs assigned in the textbook. Music theory will be discussed, learned, and related to the songs students are playing. Technique/finger exercises are incorporated throughout the course and correlate with the songs students will play.

2747 Piano Class 2 (9-12)	Elective	0.5 credit
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Students will expand upon the skills and concepts from Piano 1. Literature, skills, and techniques will engage the intermediate Piano Player who has mastered music reading and rhythmic accuracy as well as basic keyboarding technique.

Prerequisite: must pass Piano Class 1 to be eligible for Piano Class 2.

2741 Guitar Class (9-12)	Elective	0.5 credit
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Students will expand upon the skills and concepts learned in 8th Grade Rotational Guitar, this course is meant for the beginning guitarist. Students will review proper playing position, strumming techniques, finger picking, and melodic playing in first position. Students will gain additional skills in chord playing, melodic playing, strumming, and multiple position playing. This class will be a combination of large group instruction and personal practice time.

2742 Guitar Class 2 (9-12)	Elective	0.5 credit
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Students will expand upon the skills and concepts learned in Guitar Class to discover more challenging intermediate repertoire and barre chords as well as multiple playing positions and melodic exercises. This class will rely more heavily on personal practice time and feature a private lesson format.

Prerequisite: must pass Guitar 1.

2760 Introduction to Instrumental Performance (9-12)	Elective	0.5-1credit
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This course is designed for the introductory level band at the high school level. The primary goal is to prepare a student for the eventual placement and participation in the Concert and Marching Band program. Grades will be based upon progress of skills on a chosen instrument. Other factors will include daily participation (practice and preparation for lessons), concert attendance, music theory activities, and recordings to mark stages of progression. Instruments chosen may include flute, oboe, clarinet, alto saxophone, trumpet, French horn, trombone, baritone, bells or percussion.

SCIENCE

1311 Science (7)

This required course encompasses six main topics in modern science including: Nature of Science, Structure and Function of Organisms, Continuity of Life, Ecological Behavior and Systems (Ecosystems and Changes), Ecological Behavior and Systems (Renewable and Non-renewable Resources) and Earth Processes and Resources. 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 earth features and processes that change our earth and its resources, weather, climate, atmospheric processes, composition and structure of the universe. Physical Science will incorporate structure, properties, and interactions of matter and energy, forms, sources, conversion and transfer of energy, and principles of motion and force. Proper laboratory procedures and data analysis are reviewed and practiced. 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.

2365 Ecology (9th grade) Required 0.5 credit

This course provides a background in the fundamental principles of ecological science. The course is designed to run concurrently with the Keystone Biology course to reinforce concepts that include natural selection, population and community ecology, ecosystems, energy flow, biogeochemical cycles, biodiversity and sustainability. Required for all 9th grade students.

2364 Environmental Science (10-12) Elective 0.5 credit

Students will examine the relationship between people and the environment. Topics covered include: natural resources, their use and their ability to renew; human population growth and how to feed a growing population; carbon dioxide release and the change of the climate; pollution and its effects; energy production.

2320 Honors Biology I Required 1 credit*

This biology course is designed to teach students about the processes of living organisms. The content of the class will include: Basic Biological Principles, The Chemical Basis of Life, Bioenergetics, Homeostasis and Transport, DNA, RNA and Protein Synthesis, Cell Growth and Reproduction, Patterns of Inheritance, Biotechnologies, Theory of Evolution, and Ecology. Students will be preparing to take the state-mandated Biology Keystone exam at the end of the school year. Knowledge of concepts will be gained through chapter and outside readings, class discussion, laboratory activities, group projects, and a research project. This class is recommended for students with a high interest and aptitude in science.

Prerequisites: A grade of 85% or higher in 8th grade science or teacher recommendation

2322 Academic Biology I Required 1 credit

This biology course is designed to teach students about the processes of living organisms. The content of the class will include: Basic Biological Principles, The Chemical Basis of Life, Bioenergetics, Homeostasis and Transport, DNA, RNA and Protein Synthesis, Cell Growth and Reproduction, Patterns of Inheritance, Biotechnologies, Theory of Evolution, and Ecology. Students will be preparing to take the state-mandated Biology Keystone Exam at the end of

the year. Knowledge of concepts will be gained through chapter and outside readings, class discussions, laboratory activities, and group projects.

2366 Concepts of Chemistry **Elective** **0.5 credit**

This is a practical, qualitative chemistry course designed for students who desire an understanding of basic chemical concepts. This course may be used as an introduction to Chemistry and includes the topics of Atoms, Periodic Law, Chemical Bonding and Reactions of Matter. This course is project-based thereby challenging students to apply their knowledge to solve real-world scenarios.

2330 Honors Chemistry **Elective** **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**
- **A minimum grade of 80% in 9th grade Math**
- **Teacher recommendation**

2332 Academic Chemistry **Elective** **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.

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.

Prerequisites:

- **A grade of 80% or higher in 9th grade Biology and**
- **A grade of 80% or higher in 10th grade Chemistry, or**
- **Teacher recommendation**

2345 AP Physics (11-12) **Elective** **1 credit****

This is an algebra-based introductory college-level physics course. Students cultivate their understanding of Physics through inquiry-based investigations as they explore topics such as Newtonian mechanics (including rotational motion); work, energy and power; mechanical waves and sound; and simple circuits.

Prerequisites:

- **A minimum grade of 85% in Algebra II and Honors Physics or**
- **Teacher recommendation**

2367 Concepts of Physics**Elective****0.5 credit**

This is a practical, qualitative physics course designed for students who desire “real-world” understanding of physics. This course may be used as an introduction to Physics and covers Mechanics, Waves, Optics, Electricity, Magnetism and Nuclear Energy. This course is project-based thereby challenging students to apply their knowledge to solve real-world scenarios.

2350 Honors Physics**Elective****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.

Prerequisite:

- **A minimum grade of 80% in 10th grade Chemistry**
- **A minimum grade of 80% in 10th grade Math or**
- **Teacher recommendation.**

2352 Academic Physics**Elective****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.

2360 AP Biology (11-12)**Elective****1 credit ****

The AP Biology course gives students an opportunity to experience coursework 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 this course.

Prerequisites:

- **85% or higher in Biology and Chemistry or teacher recommendation.**

2362 Forensic Science (9-12)**Elective****0.5 credit**

This 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: fingerprints, hair, fibers, blood and human remains. Also covered are methods of collecting evidence, procedures for evaluating crime scenes and the analysis of documents and handwriting.

2368 Field Geology (9-12)**Elective****0.5 credit**

Methods of geologic data collection, analysis and presentation using a variety of geologic sites in Berks County; the use and interpretation of geologic maps to understand the geologic events that produced this region. Students will gain practical experience through field trips to Berks County rock outcroppings.

SOCIAL STUDIES

1211 World History (7)

This course presents an overview of World History: from Early Man, Egyptians, River Valley Civilizations, the Greeks, Romans, Middle Ages, Emergence of the New Empires, the Late Middle Ages, the Beginning of Modern Times, Renaissance, Reformation and the Changing World.

1221 US History I / PA History (8)

This course presents a history of the United States and Pennsylvania to students. Topics studied begin with Colonial America and progress through the Civil War.

2210 Honors US History II/ PA History (9)**Required****1 credit***

This course is an in-depth study of American history from Reconstruction through present day as it relates to these time periods. This course includes a good deal of independent study outside regular class hours, and should be taken by highly self-motivated students.

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

Prerequisite: A minimum grade of 85% in History 8

2212 Academic US History II / PA History (9)**Required****1 credit**

This course is an in-depth study of American history from Reconstruction through the present day. This course includes some independent study outside of regular class hours. Self-motivation is essential to success.

2223 Honors Global Studies (10)**Required****1 credit***

This year-long course focuses on world-wide human history from the Enlightenment to the present day. Students will study major themes of cultural development, including the historical, economic, and political factors that have shaped our global society.

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

Prerequisite: A minimum grade of 90% in History 9

2224 Academic Global Studies (10)**Required****1 credit***

This year-long course focuses on world-wide human history from the Enlightenment to the present day. Students will study major themes of cultural development, including the historical, economic, and political factors that have shaped our global society.

2256 The Future Me (11)**Required/Elective****0.5 credit**

Students will learn fundamental elements necessary to become a functioning adult. Students will discover the basics of our economic system in the U.S. Students will learn how to utilize credit, create investments, and budget their monthly income.

2257 Entrepreneurship (11)**Required/Elective****0.5 credit**

Students will learn about the structure of business and how to start a small business. Students will learn about supply and demand, the basics of microeconomics and types of businesses. Students will also explore how to operate a small business and complete in a market economy.

****Students must choose either Future Me or Entrepreneurship toward their 11th grade Social Studies requirement. ****

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.

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

Prerequisite: A minimum grade of 90% in Honors Global Studies or teacher recommendation.

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 (10-12)**Elective****0.5 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.

2254 Sociology (10-12)**Elective****0.5 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

2250 AP American History (11-12)**Elective****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.

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

Prerequisite: Successful completion of Honors Global Studies or recommendation of teacher

2241 AP Government (12)**Required/Elective****1 credit**

AP U.S. Government and Politics provides a college-level, nonpartisan introduction to key political concepts, ideas, institutions, policies, interactions, roles, and behaviors that characterize the constitutional system and political culture of the United States. Students will study U.S. foundational documents, Supreme Court decisions, and other texts and visuals to gain an understanding of the relationships and interactions among political institutions, processes, and behaviors. They will also engage in disciplinary practices that require them to read and interpret data, make comparisons and applications, and develop evidence-based arguments.

There will be required summer reading and a corresponding assignment. Prerequisite is grades of 85% or higher in both US History II and Global Studies.

Students can take this course as an Honors level Government if they opt out of taking the AP exam.

2255 Military History (9-12)**Elective****0.5 credit**

This course will cover military conflicts in which the United States has been involved. Conflicts from the American Revolution to the Persian Gulf War will be studied. The major emphasis will be on cause-effect relationships and possible solutions that might lead to maintaining peace. There will be military tactics and innovations from each conflict presented.

2258 Genocide Studies (10-12)**Elective****0.5 credit**

This course examines the historical, psychological, cultural and societal roots of human cruelty, mass violence and genocide.

TECHNOLOGY**1514 Technology Education 7 (Design and Modeling)****Rotation Course**

In this unit, students begin to recognize the value of an engineering notebook to document and capture their ideas. They are introduced to and use the design process to solve problems and understand the influence that creative and innovative design has on our lives. Students use industry standard 3D modeling software to create a virtual image of their designs and produce a portfolio to showcase their creative solutions.

1522 Technology Education 8 (Automation and Robotics)

Rotation Course

Students trace the history, development, and influence of automation and robotics. They learn about mechanical systems, energy transfer, machine automation, and computer control systems. Students use a robust robotics platform to design, build, and program a solution to solve an existing problem.

2420 Introduction to Computer Science (9-12) Elective 0.5 credit

This is an introductory course for students to begin exploring how to build their own websites, apps, animations, games, and physical computing systems.

2755 Design and Build (9-12) Elective 1 credit

Students will learn and use the engineering design process and will have a choice of different projects to create, design and build throughout this year-long course.

WORLD LANGUAGES

1617 Exploratory Language

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 Level I. Placement in Exploratory German or Spanish is based on students' available time in their academic schedule. Some students will take the exploratory languages in the 7th grade. Others will take the exploratory languages in their 8th grade year.

1620 German I (8)

1625 Spanish I (8)

This introductory course for 8th graders 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.

2610 Spanish I (9-12) Elective 1 credit

2630 German I (9-12) 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.

2615 Spanish II (9-12) Elective 1 credit

2635 German II (9-12) Elective 1 credit

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

Prerequisite: Passing grade in Spanish I or German I.

2620 Spanish III	Elective	1 credit*
2640 German III	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. Increased emphasis on developing a cross-cultural perspective by comparing the native with the target culture. Second year study is a prerequisite.

Prerequisite: Passing grade in Spanish II or German II.

2625 Spanish IV	Elective	1 credit*
2645 German IV	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 in the language is also introduced. A continuing emphasis on developing a cross-cultural perspective by comparing the native with the target culture.

Prerequisite: minimum grade of 85% in Spanish III or German III or teacher recommendation.

2626 Spanish V	Elective	1 credit**
2646 German V	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 85% in Spanish IV or German IV or teacher recommendation.

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 internship program. 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 school counselor.



ONLINE LEARNING

The Antietam School District has developed the Antietam Virtual Academy (AVA) to enable students to participate in online courses. Online courses provide an opportunity for students to explore individual areas of interest; however, dedication and self-discipline are critical to success in this program. Participation in AVA is considered on an individual basis.

SERVICE LEARNING

Grades 9-12

COMMUNITY SERVICE - By engaging in service learning, Antietam students are better prepared to be successful in their post-secondary endeavors. Service learning is an opportunity to explore a variety of organizations and contribute positively as citizens. In addition, service learning enhances students' capacity to grow in areas of leadership, collaboration, and interpersonal skills. These attributes are needed to increase employability as well as to excel in a diverse society.

Students will be required to complete a minimum of 30 hours of community service over the course of their high school career. Proper documentation of hours completed must be submitted by the student and will be retained by the school. Hours may begin to be accrued the summer following successful completion of grade 8.

DUAL ENROLLMENT AGREEMENT

READING AREA COMMUNITY COLLEGE (RACC)/Alvernia University

Grade 12

Antietam High School has entered into dual enrollment agreements with Reading Area Community College and Alvernia University whereby students may earn college credit while they are still in high school. The program can service seniors who plan to reach beyond the traditional high school setting and complete coursework relevant to their futures.

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

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

TRANSFERABILITY – Both institutions maintain 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 institutions and are subject to change.

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 may enroll in:

1. Credit Recovery courses that satisfy graduation requirements for Antietam MSHS. This would be the case if a student failed a course at Antietam MSHS that they must pass in order to graduate.
2. Enrichment courses that can be counted toward the required number of graduation credits. This would be the case if a student wanted to take a course not offered at Antietam MSHS.

Any course must be pre-approved through Antietam's Counseling Office.

COLLEGE IN THE HIGH SCHOOL- this is a dual enrollment program that Antietam MSHS has in place with RACC and Alvernia. College credits are earned in specific advanced courses taught by Antietam faculty. Please ask your school counselor about this opportunity.

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.

Grades – Marking period grades provided by BCTC will be reflected on Antietam's report cards. Students who receive an 'incomplete' from BCTC will receive a zero on their report card for that marking period until the issue that warranted the 'incomplete' is resolved with BCTC.

Medical Health Professions (12) – Application must be received by December of your junior year. See school 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 week. Health classes and shadowing healthcare providers at The Reading Hospital will take place the other three days of the week.

Get a jump on college with the new Technical Academy Program: WORLD LANGUAGES through a partnership with BCTC and RACC.

Students are enrolled at BCTC and RACC while still in high school and may earn up to 18 college credits *at no cost!* Students must be in grades 10 or 11 to be considered and must have a 3.0 overall GPA.

Ask your school counselor for more information about this exciting new program!

APPLICATION PROCESS

Students apply for enrollment at BCTC through their school 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**-Counselor assesses students in areas of academics, attendance, behavior and comments regarding the appropriateness of program to student learning objectives/career goals.
- **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.

BCTC Course Offerings

E = East Campus Only W = West Campus Only B = Both Campuses

Business & Information Technology Cluster		Healthcare Cluster	
Business Management & Entrepreneurship (*Technical Academy Optional)	W	Dental Occupations	E
Computer System Networking & Security (*Technical Academy Optional)	E	Health Occupations (*Technical Academy Optional)	W
IT-Programming (*Technical Academy Optional)	W	Medical Health Professions (MHP --SENIORS ONLY (PSU Berks and Reading Hospital Partnership - held off-site at these locations)	N/A
Communications Cluster			
Advertising Art & Design Technology	W	Medical Information Technology	E
		Sports Medicine and Rehabilitative Therapy (SMaRT)	E
Communication Media Technology; Cinematography & Video Film Production	W	Services Cluster	
Graphic Imaging Technology	W	Cosmetology	B
Photo Imaging Technology	W	Culinary Arts	B
Construction Cluster			
		Early Childhood Education	B
Building Construction Occupations	E	Horticulture	E
Cabinetry and Wood Technology	E	Protective Services - Law Enforcement	E
Carpentry	E	Protective Services - Homeland Security	E
Electrical Occupations	B	Service Occupations/Work Partners	E
Heating, Ventilation, Air Conditioning/Refrigeration	E	Transportation Cluster	
Masonry	E	Automotive Collision Repair Technology	B
Painting & Decorating	E	Automotive Technology	B
Plumbing & Heating	E	Diesel Technology	E
Engineering & Manufacturing Technology Cluster			
Drafting Design Technology	W	Heavy Equipment Technology	E
		Recreational & Power Equipment Technology	W
Electronic Engineering Technology	W		
Mechatronics Engineering Technology (Technical Academy)	W		
Precision/Computerized Machining Technology	W		
Robotics & Automation Technology	W		
Welding Technology	W		

*BCTC students who plan to pursue post-secondary education should take a rigorous high school academic program in the areas of math, science, and English.