

CAMBRIA HEIGHTS HIGH SCHOOL COURSE OF STUDY

2023-2024

Approved 11/15/2022

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THE CAMBRIA HEIGHTS
COMMUNITY WILL
ENABLE THE STUDENTS TO
MEET THE CHALLENGES
OF LIFE BY BECOMING
LIFELONG LEARNERS
AND RESPONSIBLE
CITIZENS.

-OUR MISSION STATEMENT

FOR ADDITIONAL INFORMATION
CONTACT THE GUIDANCE OFFICE @ 814.674.3601

MRS. KIM MCCULLOUGH - EXTENSION 3327 CLASSES OF 2024 & 2026

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INTRODUCTION

Cambria Heights High School's Course of Study is designed to help students make important decisions about their education. Some courses are prescribed to students based upon teacher recommendations, past performance, and state or district requirements; for other courses, students can choose from a variety of options after conferring with their families and considering their interests, abilities, and post-secondary plans.

Cambria Heights High School's graduation requirements fulfill the statewide requirements outlined by the Pennsylvania Department of Education and are enacted as policy by the Cambria Heights Board of School Directors. However, post-secondary colleges or universities may have more stringent admissions requirements. If a student plans to attend a post-secondary institution, he/she should select classes necessary for enrollment. Additionally, many colleges require that students take the SAT I: Reasoning Test or the ACT (American College Test) prior to admission. Students should become familiar with the entrance requirements of each post-secondary institution to which they might apply.

In addition, students are encouraged to consult the Guidance Department to find information on careers, post-secondary institutions, and financial aid. The Guidance Department has two certified school counselors that help students plan their annual schedules. However, a student will not be assigned an official schedule until his/her parent(s) or legal guardian(s) have agreed to the students' course selections by signing a course selection list.

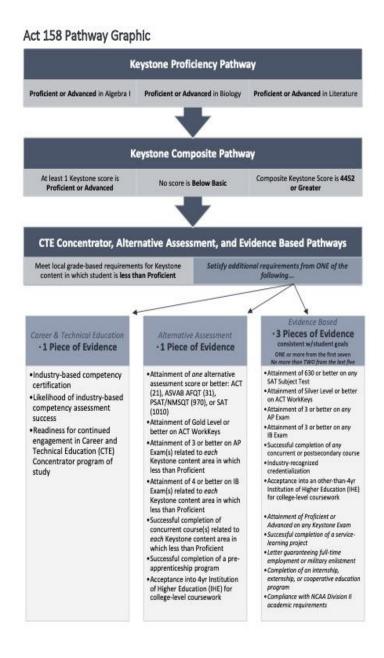
All students are required to meet specific requirements to graduate from a high school in the Commonwealth of Pennsylvania. The Pennsylvania Code provides for each local school entity to specify requirements for graduation in its strategic/comprehensive planning. At Cambria Heights, those requirements shall include:

1. Successful completion of 24 credits in the following areas:

Courses	Credits
English	4
Social Studies	3
Science	3
Mathematics	3
Health & Physical Education 2	
Electives	9

- 2. Successful completion of Senior Seminar.
- 3. Successful completion of Career Readiness 10 and 11.

4. Demonstration of proficiency on the Keystone Exams, approved industry-based assessment, or other state-approved pathway to graduation as outlined in Act 158.



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- 5. Scheduling four years of Math and/or Science courses (with the exception of students attending Admiral Peary Vocational Technical School).
- 6. Completion of any additional requirements as set forth by the Pennsylvania Department of Education.

SCHEDULING

Each spring, students complete a schedule of their required and preferred courses for the next school year. Students must schedule 7.0 credits per school year unless granted an exception by the Principal or Guidance Department. (Cases for exception include, but are not limited to, scheduling of dual-enrollment courses with lab periods or Keystone remediation courses.) Students will rank their preferred electives; however, admission to elective courses will be based upon teacher availability and each student's individual schedule.

Required courses are those that fulfill students' graduation requirements in core subject areas. While students have some choice in selecting these courses, teacher recommendations factor into each student's placement. Additionally, students must meet all prerequisites before scheduling a sequential course. For example, a student who has not successfully completed Algebra 1(A) will not be permitted to schedule Algebra 2(A) the following school year.

Elective courses are those that students can schedule after they have met state and district requirements for core credits. Students attending Admiral Peary Vocational-Technical School (APVT) will receive 3.0 elective credits per year for earning a passing grade in their programs of study. After a student has met the graduation requirement in each subject area, additional courses he/she completes in that subject area will count as elective credits for graduation requirements. Students who attend APVT will have a reduced physical education credit requirement of .25 credits for every year of attendance at APVT.

Cambria Heights High School utilizes a weighted grading system for some of its courses. Enriched English 9, Honors English 10 and 11, and Honors Physics have weighted values of 1.05. All dual-enrollment courses (with the exception of Microcomputer Applications and Visual Basic Programming) have weighted values of 1.10. This weighted system is used to determine GPA, class rank, National Honor Society eligibility, and Academic Banquet awards. A student's weighted GPA and unweighted GPA will appear on his or her report card.

COLLEGE CREDIT OPPORTUNITIES

Cambria Heights offers multiple classes for college credit through Pennsylvania Highlands Community College, Mount Aloysius College, and Saint Francis University. These classes are referred to as **dual-enrollment** courses. Students enrolled in the following classes may receive credits from the listed post-secondary institutions for a reduced fee. Further information about these programs will be distributed during the first few weeks of each academic year. A list of the courses, post-secondary institutions granting credit, and credit amounts are as follows:

College Reading and Writing PA Highlands Community College (3)

College Biology Mount Aloysius College (4)

Saint Francis University (4)

College Chemistry Saint Francis University (4)

Mount Aloysius (4)

College Calculus PA Highlands Community College (4)

Mount Aloysius College (4)

Anatomy & Physiology PA Highlands Community College (4)

Mount Aloysius College (4)

Intro to Exercise Science Saint Francis University (2)

Microcomputer Applications PA Highlands Community College (3)

Visual Basic Programming PA Highlands Community College (3)

College Psychology Mount Aloysius College (3)

College Statistics Mount Aloysius College (3)

Music Theory Saint Francis University (3)

IUP Crimson Hawk and Saint Francis Worldwide Independent Dual Enrollment Programs

- 1. Students will be permitted to take courses taught by university faculty online or in person.
- 2. The courses would be independent from the student's high school course work.
 - i. Students would not receive high school credit and the course would not affect the students GPA.
 - ii. Courses will not be listed on the High School Transcript.
 - iii. The cost of the course would be paid by the student.
 - b. Courses will be offered at a discounted tuition rate. Tuition rates are set by the University. The rates for 2021 are listed below.
 - 1. Indiana University of Pennsylvania offers courses both in person and online at \$518 for a 3-credit course.
 - 2. Saint Francis offers paths through a career development series as well as expanded course options through Francis Worldwide.
 - Saint Francis online tuition rate is \$200 per credit.
 - b. Saint Francis in person on campus rate is \$485 a credit.

Specifics from both <u>Indiana University of Pennsylvania</u> and <u>Saint Francis</u> <u>University</u> programs are available online and in the guidance office.

PROGRAMS OF STUDY

Educational Tracks:

Upon scheduling for high school, students will select the *University Track* or the *Associate/Career/Technology Track*. When scheduling for their sophomore year, students in either track may opt to enroll in the *Vocational-Technical Track*. Students in this track will attend Admiral Peary Vocational-Technical School each morning for instruction in their chosen vocational field.

All students enrolled in the *University Track* are given rigorous academic classes, not only as a part of four year college admission requirements, but also in preparation for the rigor and study habits essential for the successful completion of college programs. Due to various foreign language and other requirements at different colleges and universities, it is up to the student to research and understand the requirements for admission. *Cambria Heights recommends that students take two or more years of a foreign language instruction to be certain they meet most college admission requirements prior to applying for acceptance.*

Cambria Heights also recognizes the demand for employees with technical and trade skills. Students enrolled in the *Associate/Career/Technology Track* are given advanced technical and academic courses to prepare them for the workforce, an education that can lead to a two year Associate Degree, and/or the opportunity to continue their education toward a four year degree.

Admiral Peary Vocational-Technical School:

Admiral Peary Area Vocational–Technical School, located in Ebensburg, provides local school districts the opportunity to enhance their school curricula by providing career education in the following areas: Automotive Body Repair, Automotive Technology, Carpentry, Cosmetology, Culinary Arts, Diesel Mechanics, Early Childhood Teacher Education, Electrical Technology, Engineering Technology, Health Assisting, HVAC, Masonry, Networking Technology, Small Engine Technology, and Welding.

Students enrolled at Admiral Peary spend their mornings at the vocational-technical school and their afternoons at Cambria Heights High School, where they receive the required core courses necessary for graduation. Separate course descriptions for all Admiral Peary Vocational-Technical programs are available at the high school or from Admiral Peary.

Any student initially scheduled for classes at Admiral Peary will be permitted to return to the high school **during the first five days of the school year**. However, after the first five days of the student's initial year at Admiral Peary, a student who has not made a schedule change may be required to complete the entire school year at Admiral Peary. Any student who initially desires to attend Admiral Peary must be passing all of his/her major courses at Cambria Heights at the end of the third marking period. Enrollment at Admiral Peary is not permitted until a student passes all major subjects for the school year.

Enrollment in College while in High School:

Students who take courses at an accredited college while they are still in high school may use those courses to advance in an academic area at Cambria Heights. However, the students cannot receive credits for these courses at Cambria Heights; additionally, the college courses cannot appear on students' high school transcripts. If attending college while in high school, a student must submit to the Guidance Office a copy of his/her college schedule in advance of the semester and a copy of his/her transcript after successful completion of each course.

Parental Permission for Schedule Completion:

Students will meet with the counselors to make initial schedule selections. Initial selections will be made available for parents review and final approval. Any requests for schedule changes must be made prior to June 1, 2023.

KEYSTONE EXAMS/PATHWAYS TO GRADUATION

On November 20, 2020, Governor Tom Wolf signed into law Senate Bill 1216 (Act 136 of 2020), which amended the processes by which students can graduate from Pennsylvania high schools given the disruptions to Keystone exam administration during the CoVid-19 pandemic.

For the Classes of 2023, 2024, and 2025, pathways to graduation include:

- Scoring proficient on each of the three Keystone exams: Algebra I, Biology, and Literature.
- Earning a composite score of 4452 or above on the three Keystone exams or earning a composite score of 2939 or greater on two Keystone Exams.
- Earning a passing grade on a course associated with each Keystone exam *and* satisfactorily completing another assessment, such as the SAT, PSAT, ACT, or a dual-enrollment course *as defined by PDE at the time of graduation*.
- Earning a passing grade on a course associated with each Keystone exam *and* passing the NOCTI or NIMS assessment through a program at Admiral Peary.
- Earning a passing grade on a course associated with each Keystone exam and demonstrating readiness for post-secondary engagement through three pieces of evidence in a career portfolio.
- However, students who successfully completed a Keystone-related course during the 2019-2020 academic year will be deemed "proficient" in that course area for the purposes of graduation. Keystone-related courses are those addressing the standards covered in English 9, Biology, or Algebra 1.
 - O These pathways were accurate as of 12/29/2020 and could be amended by subsequent legislation or guidance from the Pennsylvania Dept. of Education.

COLLEGE ATHLETICS/NCAA ELIGIBILITY

Students who are interested in playing collegiate athletics at the Division I, II, or III level should create an account on the NCAA Eligibility Center website. Please visit http://fs.ncaa.org/Docs/eligibility center/Student Resources/Registration Checklist.pdf or talk to your Guidance Counselor for more information.

RECOMMENDED COURSES OF STUDY

UNIVERSITY TRACK

Ninth Grade:

Tillian Grade.	
Credit/Subject	
1.00	English 9 (A) or Enriched English 9
1.00	U.S. Cultures 1
1.00	Academic Biology
1.00	Algebra 1 (A) or Algebra 2 (A)
1.00	Spanish 1
0.50	Health/Physical Education

Computers/Keystone Prep 0.50 1.00 One of the Following Electives: Concert Band, Chorale, Audio Media Technology, Foundations of Technology, Engineering and Design, or Exploratory Courses (*If

students wish to enroll in Concert Band, Spanish, and Chorale, the latter will only

count for 0.50 credits on the students' transcripts)

Tenth Grade

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Credit/Subject	
1.00	English 10 (A) or Honors English 10
1.00	Western Civilization and Government
1.00	Chemistry 1
1.00	Algebra 2 (A) or Geometry (A)
1.00	Spanish 2
0.50	Physical Education
0.25	Driver's Education
0.25	Career Readiness 10
1.00	Elective Course

Eleventh Grade:

1.00	English 11 (A) or English 11 Honors
1.00	U.S. Cultures 2
1.00	Geometry (A), College Algebra, or Pre-Calculus
1.00	Physics or one of the Following Science Electives: College Biology, College
	Chemistry, Anatomy & Physiology I, or Honors Physics
0.50	Physical Education
0.50	SAT Math/SAT Reading
0.25	Career Readiness 11
2.00 or 3.00	Elective Courses
Twelfth Grade	!

Twelfth Grade: Credit/Subject

Credit/Subject	
1.00	English 12 (A) or College Reading & Writing
1.00	Physics, Honors Physics, or a Dual-Enrollment Science Course
1.00	College Algebra, Pre-Calculus, or College Calculus
0.50	Physical Education
0.50	Senior Seminar
3.00	Elective Courses

ASSOCIATE/CAREER/TECHNOLOGY TRACK

Ninth Grade:

Miliul Glaue.	
Credit/ Subject	
1.00	English 9 (A) or English 9 (B)
1.00	U.S. Cultures 1
1.00	Academic Biology or Applied Biology-Chemistry 1
1.00	Math 9 or Algebra 1 (B)
0.50	Health/Physical Education
0.50	Computers/Keystone Prep
1.00	One of the Following Electives: Concert Band, Chorale, Audio Media Technology,
	Foundations of Technology, Engineering and Design, or Exploratory Courses
1.00	Spanish 1 or any remaining elective
Tenth Grade:	

Credit/ Subject	
1.00	English 10 (A) or English 10 (B)
1.00	Western Civilization and Government
1.00	Chemistry or Applied Biology-Chemistry 2
1.00	Algebra 1 (B) or Algebra 2 (B)
1.00	Engineering and Design
0.50	Physical Education
0.50	Computer Applications
0.25	Driver's Education
0.25	Career Readiness 10
1.00	Elective Course

Eleventh Grade: Credit/ Subject

1.00	English 11 (A) or English 11 (B)
1.00	U.S. Cultures 2
1.00	Applied Physics 1 or Science Elective
1.00	Algebra 2 (B) or Geometry (B)
0.50	Physical Education
0.50	SAT Math/SAT Reading
0.25	Career Readiness 11
2.00	Elective Courses

Twelfth Grade:

Credit/ Subject

1.00	English 12 (A) or English 12 (B)
1.00	Algebra 3/Financial Math
1.00	Environmental Science, Applied Physics, or Science Elective
0.50	Physical Education
0.50	Senior Seminar
3.00	Elective Courses

VOCATIONAL-TECHNICAL CAREER PATHWAY

	Year Sequence 10-11-12		'ear Sequence s 11-12
Tenth	Grade:	Tenth	Grade:
1.00	English 10 (A) or English 10 (B)	1.00	English 10 (A) or English 10 (B)
1.00	Algebra 1 (B) or Algebra 2 (B)	1.00	Algebra 1 (B) or Algebra 2 (B)
1.00	Western Civilization and Government	1.00	Applied BioChem. 2
3.00	Selected Career Training Program	1.00	Western Civilization and Govt.
	(at Admiral Peary)	1.00	Engineering and
			Design or Nutrition and Foods
0.25	Career Readiness 10	0.25	Career Readiness 10
0.50	Physical Education	0.50	Physical Education
0.25	Driver's Education	0.50	Adobe Photo Design (name
			change from computer
			applications)
		0.25	Driver's Education
Flovon	nth Grade:	Flovo	nth Grade:
1.00	English 11 (A) or English 11 (B)	1.00	English 11 (A) or English 11 (B)
1 00	Algebra / IBI or Geometry IBI	1 00	Algebra / IRI or Geometry IRI
1.00	Algebra 2 (B) or Geometry (B) Applied Physics 1 or Science Flective	1.00 1.00	Algebra 2 (B) or Geometry (B) Applied Physics 1 or H S Cult 2
1.00	Applied Physics 1 or Science Elective	1.00	Applied Physics 1 or U.S. Cult. 2
	Applied Physics 1 or Science Elective Selected Career Training Program		Applied Physics 1 or U.S. Cult. 2 Selected Career Training
1.00 3.00	Applied Physics 1 or Science Elective Selected Career Training Program (at Admiral Peary)	1.00 3.00	Applied Physics 1 or U.S. Cult. 2 Selected Career Training Program (at Admiral Peary)
1.00 3.00 0.25	Applied Physics 1 or Science Elective Selected Career Training Program (at Admiral Peary) Career Readiness 11	1.00 3.00 0.25	Applied Physics 1 or U.S. Cult. 2 Selected Career Training Program (at Admiral Peary) Career Readiness 11
1.00 3.00	Applied Physics 1 or Science Elective Selected Career Training Program (at Admiral Peary)	1.00 3.00	Applied Physics 1 or U.S. Cult. 2 Selected Career Training Program (at Admiral Peary)
1.00 3.00 0.25 0.50	Applied Physics 1 or Science Elective Selected Career Training Program (at Admiral Peary) Career Readiness 11	1.00 3.00 0.25 0.50	Applied Physics 1 or U.S. Cult. 2 Selected Career Training Program (at Admiral Peary) Career Readiness 11
1.00 3.00 0.25 0.50	Applied Physics 1 or Science Elective Selected Career Training Program (at Admiral Peary) Career Readiness 11 Physical Education	1.00 3.00 0.25 0.50	Applied Physics 1 or U.S. Cult. 2 Selected Career Training Program (at Admiral Peary) Career Readiness 11 Physical Education
1.00 3.00 0.25 0.50	Applied Physics 1 or Science Elective Selected Career Training Program (at Admiral Peary) Career Readiness 11 Physical Education h Grade:	1.00 3.00 0.25 0.50	Applied Physics 1 or U.S. Cult. 2 Selected Career Training Program (at Admiral Peary) Career Readiness 11 Physical Education th Grade:
1.00 3.00 0.25 0.50 Twelft 1.00	Applied Physics 1 or Science Elective Selected Career Training Program (at Admiral Peary) Career Readiness 11 Physical Education th Grade: English 12 (A) or English 12 (B)	1.00 3.00 0.25 0.50 <u>Twelf</u> 1.00	Applied Physics 1 or U.S. Cult. 2 Selected Career Training Program (at Admiral Peary) Career Readiness 11 Physical Education th Grade: English 12 (A) or English 12 (B)
1.00 3.00 0.25 0.50 <u>Twelft</u> 1.00 1.00	Applied Physics 1 or Science Elective Selected Career Training Program (at Admiral Peary) Career Readiness 11 Physical Education h Grade: English 12 (A) or English 12 (B) Street Law/U.S. Cultures 2	1.00 3.00 0.25 0.50 <u>Twelf</u> 1.00 1.00	Applied Physics 1 or U.S. Cult. 2 Selected Career Training Program (at Admiral Peary) Career Readiness 11 Physical Education th Grade: English 12 (A) or English 12 (B) Algebra 3/Financial Math
1.00 3.00 0.25 0.50 Twelft 1.00 1.00	Applied Physics 1 or Science Elective Selected Career Training Program (at Admiral Peary) Career Readiness 11 Physical Education h Grade: English 12 (A) or English 12 (B) Street Law/U.S. Cultures 2 Environmental Science or Sci. Elective Selected Career Training Program (at Admiral Peary)	1.00 3.00 0.25 0.50 <u>Twelf</u> 1.00 1.00	Applied Physics 1 or U.S. Cult. 2 Selected Career Training Program (at Admiral Peary) Career Readiness 11 Physical Education th Grade: English 12 (A) or English 12 (B) Algebra 3/Financial Math Enviro. Science or Street Law Selected Career Training Program (at Admiral Peary)
1.00 3.00 0.25 0.50 Twelft 1.00 1.00	Applied Physics 1 or Science Elective Selected Career Training Program (at Admiral Peary) Career Readiness 11 Physical Education h Grade: English 12 (A) or English 12 (B) Street Law/U.S. Cultures 2 Environmental Science or Sci. Elective Selected Career Training Program	1.00 3.00 0.25 0.50 <u>Twelf</u> 1.00 1.00	Applied Physics 1 or U.S. Cult. 2 Selected Career Training Program (at Admiral Peary) Career Readiness 11 Physical Education th Grade: English 12 (A) or English 12 (B) Algebra 3/Financial Math Enviro. Science or Street Law Selected Career Training
1.00 3.00 0.25 0.50 Twelft 1.00 1.00 3.00	Applied Physics 1 or Science Elective Selected Career Training Program (at Admiral Peary) Career Readiness 11 Physical Education h Grade: English 12 (A) or English 12 (B) Street Law/U.S. Cultures 2 Environmental Science or Sci. Elective Selected Career Training Program (at Admiral Peary)	1.00 3.00 0.25 0.50 Twelf 1.00 1.00 1.00 3.00	Applied Physics 1 or U.S. Cult. 2 Selected Career Training Program (at Admiral Peary) Career Readiness 11 Physical Education th Grade: English 12 (A) or English 12 (B) Algebra 3/Financial Math Enviro. Science or Street Law Selected Career Training Program (at Admiral Peary)

Please note that not all electives will be available to students in the vocational-technical career pathway due to their morning attendance at Admiral Peary.

CURRICULUM: COURSE LISTING

<u>Course Title</u>	<u>Credi</u> t	Course Title	<u>Credi</u> t	<u>Course Title</u>	<u>Credi</u> t
Advanced Art	1.0	Other Foreign Language	1.0	Nutrition and Foods	1.0
Intermediate Art	1.0	Spanish 4	1.0	Relationships and Child Development	1.0
Art 10	0.5	Spanish 3	1.0		
Art 9	0.25	Spanish 2	1.0	Exploratory Technology Education	0.25
		Spanish 1	1.0	Foundations of Technology	1.0
Computers/Keystone Prep	0.5	Online Foreign Language	1.0	Principles of Engineering	1.0
Adobe Photo Design	0.5			Introduction to Drafting and Design	.25
Microcomputer Apps./ Visual Basic Programming	1.0	College Statistics	1.0	Digital Design	0.5
Computer Science Principles	1.0	College Calculus	1.0	Engineering and Design	1.0
		Pre-Calculus	1.0	Architectural Design	1.0
Senior Seminar	0.5	College Algebra	1.0	Parametric Modeling	1.0
Career Readiness 11	0.25	Algebra 3/Financial Math	1.0		
Career Readiness 10	0.25	Geometry (A)	1.0	U.S. Cultures I	1.0
Freshman Seminar	0.25	Geometry (B)	1.0	U.S. Cultures II	1.0
Drivers Education	0.5	Algebra 2 (A)	1.0	Western Civilization and Government	1.0
SAT Math	0.25	Algebra 2 (B)	1.0	Street Law	1.0
SAT Reading	0.25	Algebra 1 (A)	1.0	College Psychology	1.0
Supportive Secondary Transition Studies	1.0/0. 5	Algebra 1 (B) Math 9	1.0	Physical Ed. 9 - Boys	0.3
Transition Studies	3			Physical Ed. 9 - Girls	0.3
College Reading/Writing	1.0	Contemporary Music Ensembles	1.0	Health 9	0.2
English 12 (A)	1.0	Vocal Extension	0.5	Phys. Ed. 10-12 – Boys	0.5
English 12 (B)	1.0	Music Theory	1.0	Phys. Ed. 10-12 – Girls	0.5
Honors English 11	1.0	Concert Band	1.0	CTE Phys. Ed. – Boys	0.5
English 11 (A)	1.0	Chorale	1.0/0. 5	CTE Phys. Ed. – Girls	0.5
English 11 (B)	1.0	Audio Media Technology	1.0		
Honors English 10	1.0			Admiral Peary CTE Courses	3.0
English 10 (A)	1.0	Academic Biology	1.0	Current Events and Issues	1.0
English 10 (B)	1.0	College Biology	1.2		
Enriched English 9	1.0	Applied Bio/Chem 1	1.0	Environmental Science	1.0
English 9 (A)	1.0	Applied Bio/Chem 2	1.0	New Courses for 2023 2024	
English 9 (B)	1.0	Chemistry	1.0	Sculpture	.5
Reading Intensive English 9/10/11/12	1.0	College Chemistry	1.2	Ceramics	.5
Desktop Publishing	1.0	Anatomy & Physiology	1.0	Video Broadcasting and Editing	.5
Journalism	0.5	College Introduction to Exercise Science	1.0	Travel the World	.5
		Honors Physics	1.0		

Algebra I Remediation	0.25	Physics	1.0	
Biology Remediation	0.25	Applied Physics	1.0	
Literature Remediation	0.2	Environmental Science	1.0	

COURSE TITLES AND DESCRIPTIONS

ART

Advanced Art

In this course, students will be further introduced to new facets of the visual arts, with further instruction in the effective utilization and employment of the basic elements and principles of design. Course topics include concepts, procedures, and expectations for creating works of art, as well as analyzing, evaluating, and constructively criticizing personal and others' works. Students will continue the developmental process of formulating and using effective and creative problem-solving strategies as an extension of Intermediate Art.

• Prerequisite: This course is open to seniors. In order to be accepted into Intermediate Art, a student must have achieved a competency level of 85% in Art 9 or Art 10 or be admitted by the instructor after a competency exam.

Intermediate Art

Students will be introduced to the basic elements and principles of design and will be assigned projects that will require them to effectively utilize and employ these considerations in order to reinforce their understanding of these facets of art. Students will be instructed in the basic concepts, procedures, and expectations of creating, analyzing, and judging their own and others' original works of art. Students will extend and elaborate upon elements and principles to which they were introduced in middle school, Art 9, and/or Art 10, allowing them to explore in greater depth, modify, and refine previously learned skills and technical processes, analytical and judgemental skills, and problem-solving strategies.

• Prerequisite: Open to students in grades 11-12. In order to be accepted into Intermediate Art, a student must have achieved a competency level of 85% in Art 9 or Art 10 or be admitted by the instructor after a competency exam.

<u>Sculpture</u> Semester

This course offers students the opportunity to explore design through creating three-dimensional art works. Students will gain knowledge in additive, subtractive, and assemblage techniques as sources of construction. Students will experiment with a variety of materials such as cardboard, plaster, wood, foam and found objects.

• Prerequisite: Open to students in grades 10-12.

<u>Ceramics</u> Semester

This course offers students an introduction to clay as a 3-dimensional medium. Students will explore a variety of hand-building, sculpting and wheel throwing techniques. Through building both functional and nonfunctional ceramic pieces, students will learn about the chemical as well as the physical properties of clay and glazes.

• Prerequisite: Open to students in grades 10-12.

Art 10

This course will serve to reinforce the basic elements, principles, and technical processes. The students will additionally start to explore various facets of the design process, and will experiment with various newly incorporated media and techniques. The students will also be exposed to basic architectural concepts and projects.

Art 9

The objective of this course is to introduce the student to the basic elements and principles of design theory. The students will receive extensive training in sketching landscapes, the human figure, architectural forms, and still life. Perspective theory will also receive fairly comprehensive coverage. The students will also be introduced to basic color theory and basic painting techniques and will render paintings in acrylic and watercolor.

ENGLISH

College Reading and Writing

College Reading and Writing is a dual enrollment course which corresponds to Pennsylvania Highlands English 110—English Composition. This course will focus on the techniques of writing expository essays, stressing word choice, sentence structure, organization, purpose, and audience awareness. Editing skills, including the use of correct grammar and mechanics, will also be emphasized. Given the whole year structure for the class, there will be a number of readings, both fiction and nonfiction, incorporated into the course.

 Prerequisites: This course is open to seniors who have earned a 90% or higher in Honors English 11 or English 11 (A). Students who schedule this course must successfully complete a response essay to be assessed by the College Reading and Writing instructor prior to admission.

English 12 (A)

This course is designed for students who plan on entering a four-year college or university program. Emphasis will be placed on developing advanced composition skills through the use of computer word-processing programs and exercises. Special attention will be placed on the revision process and on revision techniques. Students will read, analyze, and respond to a variety of literature readings by engaging in classroom discussions and by writing. A research project, documented paper, and oral presentation will be required.

English 12 (B)

This course is designed for students who are following the ACT (Associate, Career and Technology) track and who will further their education through one or two years of post-secondary education or through the Armed Services. The content will include language and vocabulary development; sentence, paragraph, and essay writing; literature analysis; oral class presentations; and library research.

Honors English 11

This course is designed for students who seek a higher rigor than required by English 11A. Through short stories, novels, poetry, and drama, students will explore written language with a focus on the critical analysis of American Literature. Students will develop their writing skills through multiple critical analysis essays, as well as a comprehensive research paper. Students will participate in both a formal debate and a formal oral presentation. Students in Honors English 11 will be expected to handle ongoing independent projects in addition to regular coursework.

• Prerequisite: Entrance into Honors English 11 is based on teacher evaluation and recommendation, the student's performance in English 10, and Keystone Exam results.

English 11 (A)

This course is designed for students who plan on entering a four-year college or university program. Through short stories, novels, poetry, and drama, students will explore written language with a focus on American Literature. Students will develop their writing skills through informative, persuasive, and narrative essays, as well as a comprehensive research paper. Oral skills will be developed through class discussion/debate and through participation in a formal oral presentation.

English 11 (B)

This course is designed for students who are following the ACT (Associate, Career, and Technology) track and who will further their education through one or two years of post-secondary education or through the Armed Services. Students will study important works of American literature in various genres, including novels, short stories, and drama. Through class discussion and creative projects, students will participate in critical thinking and oral communication experience. Students will improve their writing skills by focusing on the writing of completed sentences, proper paragraph construction, and the basics of essay writing.

Honors English 10

Honors English 10 entails an extensive study of the written and spoken word. Emphasis will be placed upon the detailed study of the novel, the short story, and the

drama. Written essays and formal speeches will deal with these genres and with the authors of various works.

 Prerequisite: Entrance into the Honors English program is based on teacher evaluations and recommendations, the student's performance in English 9, and Keystone Exam results.

English 10 (A)

This course is designed for students who plan on enrolling in a four-year college or university program. Students will understand and apply the writing process to develop basic writing skills. Also, students will develop analytical reading skills through an introduction to various literary themes and genres and will learn basic research techniques.

English 10 (B)

This course is designed for students who are following the ACT (Associate, Career, and Technology) track and who will further their education through one or two years of post-secondary education or through the Armed Services. On occasion, this class will be team-taught by two teachers. Students will review and constantly apply the basics of written and oral communication skills. They will read and respond to works of literature with an emphasis on comprehension, vocabulary acquisition, and making connections among ideas and between texts.

Enriched English 9

Enriched English 9 will focus on the advancement of reading, writing, and presentation skills. Students will analyze various fiction and nonfiction texts to create generalizations and cite text evidence to support. Students will go beyond the text and be able to build connections between the literary elements, literary devices, author's style and purpose, as well as text organization to demonstrate the interrelationship of these elements. Writing emphasis will be placed on the prewriting, organization, and editing of text dependent analysis prompts. Students will complete the Keystone Literature exam at the conclusion of this course.

• Prerequisite: Entrance into the Enriched English 9 program is based on teacher evaluations, recommendations, and on the student's performance in English 8.

English 9 (A)

This course focuses on the development of reading, comprehension, and analysis of fiction and nonfiction texts. Students will analyze the author's purpose, define vocabulary through context, draw conclusions, cite evidence, compare literary forms, evaluate literary elements, analyze literary devices and patterns, justify the effectiveness of text organization, and explain the essential and nonessential information. Students will develop the writing process and improve planning, organization, and editing skills. Students will complete the Keystone Literature exam at the conclusion of this course.

English 9 (B)

The purpose of this course is to provide targeted support for reading and writing skills. These students will receive intensive instruction that focuses on these areas. As a Keystone assessed course, students will develop reading, comprehension, and analysis of fiction and nonfiction texts. Students will analyze the author's purpose, define vocabulary through context, draw conclusions, cite evidence, compare literary forms, evaluate literary elements, analyze literary devices and patterns, justify the effectiveness of text organization, and explain the essential and nonessential information. Students will develop the writing process and improve planning, organization, and editing skills. Students will complete the Keystone Literature exam at the conclusion of this course.

Reading Intensive English 9 - 10 - 11 - 12

This course is designed to help students attain grade level decoding and comprehension reading skills, with an emphasis on skills and abilities that will assist students with real-world and employment tasks. Through a combination of direct instruction and flexible groupings, students have an opportunity to work at their own paces and ability levels to master their areas of need in reading, writing, and speaking.

GENERAL ELECTIVES

Desktop Publishing

During this full year course, students will enhance their news gathering and computer skills, assume leadership roles as editors, help the first-year students learn journalistic style, learn business management techniques, apply proof-reading skills, will take photographs, learn desktop publishing software, create school related programs, study contemporary publications, and produce excellent school publications.

Iournalism

Students in this course will be introduced to the journalist's craft, including researching and writing articles. Students will learn the fundamental elements of news writing, interviewing, and photography. Students will conduct interviews, write in a variety of journalistic formats, discuss editorial positions, and help produce and edit the school's online news site.

• This elective course is open to students in Grades 11 and 12.

SAT Math/SAT Reading

These courses are designed for eleventh grade students who intend to enroll in a two- or four-year college or university program after high school graduation and who plan on taking the SAT exam during their junior and senior years. The curriculum will focus on an intensive study of the vocabulary, concepts, and test-taking skills necessary to succeed on the redesigned SAT exam. Although separate grades will be issued for Math and Reading, these courses must be scheduled together.

• *Prerequisite: These courses are open only to juniors.*

Freshman Seminar

This 9-week course will introduce students to the study skills, attitudes, and time management habits that will benefit students throughout their high school careers. This course is taken as part of the freshman exploratory track that includes Art 9, Exploratory Technology Education, and Introduction to Drafting and Design.

Career Readiness 10 & 11

The purpose of these courses is to introduce 10th and 11th grade students to various topics related to career awareness and preparation, career acquisition, and career retention and advancement. These courses will be aligned with the Academic Standards for Career Education and Work. Career Readiness will be delivered to the students through Google Classroom and will be taught online by the school counselors. Students will complete the coursework independently.

 These courses must be completed by all sophomores and juniors as part of their graduation requirements.

Semior Seminar Semester

This course will provide senior students with skills necessary to succeed in post-secondary school or in the workforce after graduation. Half of the course will be spent developing the writing and speaking skills necessary for success: interviewing, resumes and applications, and scholarship/college acceptance essays. The other half of the course will focus on financial and consumer information that students will need to live on their own. Students will be required to complete three hours of community service as part of this course. This course will satisfy the graduation project requirement.

Driver's Education

Driver's Education provides soon-to-be drivers with the background knowledge and laws necessary for safe driving. Topics of study in this course include social pressures associated with driving, laws and signage, emergency situations, and basic driving skills. Additionally, students will prepare for the state drivers' exam.

Supportive Secondary Transition Studies

The Supportive Secondary Transition Studies course is designed to provide students focused instruction and experience opportunities in the areas of post-secondary education and training, competitive employment, and/or independent living. Support instructors will utilize developmentally appropriate and research-driven assessment(s) to help students identify interests, strengths, and needs/potential

barriers related to their desired post-secondary goals. A student's previous demonstrations and artifacts related to Career Education and Work Standards (Awareness & Preparation, Acquisition, Retention & Advancement, etc.) will be reviewed. Analysis of assessment data and previous artifacts will guide teachers in their instructional and experience planning for students enrolled in the course. This course will also serve as advisory time in supporting students as they learn and develop academic skills and strategies (e.g., functional reading/mathematics skills, organization, study skills, test-taking skills, social skills, persistence and problem-solving, etc.) to meet responsibilities and requirements of a Cambria Heights High School student.

• Prerequisites: Students must be eligible and determined in need of supportive services and/or educational support by an Educational Team.

COMPUTER SCIENCE

Computers/Keystone Prep

In this course, ninth grade students will spend one semester developing computer skills necessary for high school success. Students will build upon existing knowledge of computer applications and will be introduced to the appropriate use of school email, Google Docs, cyber bullying, and submission of online course work. During the second semester, students will review and practice eligible content and test-taking strategies for the state-mandated Keystone Algebra1, Biology, and Literature exams.

Adobe Photo Design

The Computer Applications course is a half-credit course that will complement all core course content areas by building a solid background of computing fundamentals and an awareness of how and where information technology is currently being implemented. Students will develop skills for photo editing using the tools in the Adobe Suite. Technology terminology, hardware and software concepts, internet safety, and an understanding of how information technology is changing our society with an increased emphasis on the ethical and legal use of computers will be covered. If time allows, students may explore applications of desktop publishing.

Computer Science Principles

This year-long course is structured around the "Big Ideas" and "Computational Thinking Practices" outlined in the College Board's *Advanced Placement* program. Students will develop computational thinking, core programming, and problem-solving skills to create programs and projects. In doing so, students will practice logic and sequencing to solve problems and express their solutions using code.

• Prerequisite: This course is open to upperclassmen who have successfully completed Algebra 1(A) or Algebra 1(B).

Microcomputer Applications/Visual Basic Programming

This hands-on course is geared towards teaching a working knowledge of the more popular microcomputer software packages available including Windows, word processing, spreadsheets, and presentations. Also, it will cover other aspects of computer use, such as Desktop Publish, Graphic Design, and Computer Programming. This course meets the requirements to give students 3 credits from Pennsylvania Highlands for their CIT 100 Microcomputer Applications course, which is required for all of their students. The college credits will require the payment of a fee and the credits may be transferable to other colleges. Students in this course will also use Visual Basic to analyze, design, code, test, and debug a computer application using structured programming techniques, with an emphasis on modular programming techniques.

Video Broadcasting and Editing

Semester

This course will include planning and filming, script writing, and production of the school news and other broadcasts. This is a semester course in digital video that will explore all aspects of video production from story idea to camera techniques to capturing and editing. This will all be done through hands-on use of digital video equipment. Adobe editing software will be used to manipulate footage and create transitions and effects. Students will use a variety of hardware and software to capture and edit video and audio elements to produce videos.

HEALTH AND PHYSICAL EDUCATION

Health 9

This is a course that is based on personal learning experiences which favorably influence the student's attitude toward health related issues. In addition, this course will present sufficient background information in anatomy and physiology so that the student will understand the basic structure of his/ her body and its functions. The student will also receive knowledge of the various kinds of drugs, the risks and protective factors, and how to identify them. The student will be exposed to the beneficial side of drugs, especially in regard to medicine, and to the negative side of drugs when they are abused. The student will study chemical dependency and its effects on the individual, the family and societal problems. The student will also receive instruction in the following topics: organic and functional diseases, disease prevention, aspects of total fitness; which includes physical, mental, emotional, social, and spiritual health, and HIV/AIDS/S.T.I.'s awareness. Students in the 9th grade will take this course one day a week.

Physical Education 9

In this course the emphasis is placed on acquiring physical fitness through a variety of lifetime activities. Basic fundamentals and individual skill acquisition will be stressed. Students will take this course 2 days a week.

Physical Education 10-11-12

In this course the emphasis is placed on acquiring physical fitness through a variety of lifetime activities. Basic fundamentals and individual skill acquisition will be stressed. Students will take this course 3 days a week.

FAMILY AND CONSUMER SCIENCE

Nutrition & Foods

Students learn about kitchen and food safety guidelines. The students will learn about nutrients and how they work. Students will prepare foods from food groups and foreign foods. Students will complete a variety of cooking labs and taste testing. This course is recommended for students who are interested in a career in the food industry and for students who want to learn more about nutrition and cooking.

• Students in grades 10, 11, and 12 may take this course

Relationships and Child Development

This course is designed to help students learn about relationships, family interactions, parenting skills, and the development of children. Students will learn about the physical, intellectual, and social-emotional development of children from birth through the school-age years. The students will engage in a variety of activities with the elementary school students and participate in a Journal Buddy Project where all students will engage in real life writing experiences. This course is recommended for students who are interested in learning more about children and may go into a career that works with children. *Students in grades 10, 11 and 12 may take this course.*

LANGUAGES

Spanish 4

Spanish 4 emphasizes intense conversational practice and vocabulary development. The majority of the course is conducted in Spanish. The course includes a variety of literary and cultural works.

• Prerequisite: A 85% in Spanish 3 recommended

Spanish 3

Spanish 3 places special emphasis on grammar, reading, and conversation. Also cultural appreciation is stressed.

• Prerequisite: An 85% in Spanish 2 recommended

Spanish 2

Spanish 2 stresses a continuation of reading and writing skills, with an increased emphasis on pronunciation, comprehension, and response. The study of grammar is

continued, a cultural background and appreciation are acquired through the reading material.

• Prerequisite: An 85% in Spanish 1 is recommended.

Spanish 1

Spanish 1 introduces the language with basic conversational situations. There is an emphasis on pronunciation, vocabulary and on the use of basic structural patterns. Beginning reading and writing skills and grammar are introduced. Good memorization skills and logic skills are needed. An Introduction to the cultural aspects of the Spanish-speaking world is presented.

Online Foreign Languages

Opportunities are available for students to study foreign languages other than Spanish through an online course provider. Students enrolled in online courses will be assigned one class period at Cambria Heights to complete their work, but may have homework or outside assignments as well. These courses are administered and graded by an outside provider.

• Prerequisite: Students must have completed at least two years of Spanish and be in the gifted program or top 10% of their class to be eligible for online courses.

MATHEMATICS

College Statistics

Statistics is a form of mathematical analysis that uses quantified models, representations, and synopses for a given set of experimental data or real-life studies. Students in College Statistics will study methodologies to gather, review, analyze and draw conclusions from data. Topics of study include calculus, algebra, differential equations, probability theory, and computing. Students will also learn how to integrate Microsoft Excel and statistical formulas.

 Prerequisite: Students must have completed College Calculus or be concurrently enrolled in College Calculus to enroll in this course.

College Calculus

College Calculus brings together mathematical methods and ideas to examine two very important concepts. These concepts are The Problem of Tangents and The Problem of Area. This course is the culmination of a high school mathematics program, as it calls upon all the skills and information previously acquired in other mathematics courses to assist in the solving of college-level problems. This course emphasizes the study of functions, derivations and their applications, integration, the concept of limits, and continuity.

• Prerequisite: A student must obtain a 90% or higher in College Algebra, Pre-Calculus, Algebra II (A), and be in 12th Grade.

Pre-Calculus

Pre-Calculus will reflect upper level math skills required at the college level. Topics will include: (1) Equations, Inequalities, and Mathematical Modeling, (2) Functions and Their Graphs, (3) Polynomial Functions, (4) Rational Functions and Conics, (5) Exponential and Logarithmic Functions, (6) Systems of Equations and Inequalities, (7) Matrices and Determinants, (8) Sequences, Series, and Probability, (9) Three sections on Trigonometry, with special attention paid to the Unit Circle and its importance and uses.

• Prerequisite: Algebra I (A), Algebra II (A), and Geometry (A)

College Algebra

This course reviews in an accelerated manner the concepts learned in Algebra 1, followed by an introduction to the general topics that will prepare students for Algebra in a post-secondary setting. These concepts include the following: (1) Basic Concepts of Algebra, (2) Inequalities and Proofs, (3) Linear Equations and Functions, Systems of Equations and Inequalities, (4) Products and Factors of Polynomials, (5) Rational Expressions and Equations. This course also introduces (6) Radicals, Irrational and Complex Numbers, (7) Quadratic Equations and Functions, (8) Variations, (9) Analytic Geometry and Conic Sections, and (10) Exponential and Logarithmic Functions (11) Statistics and Standard Deviation.

• Prerequisite: Algebra I (A), Algebra II (A), and Geometry (A)

Algebra 3 / Financial Math

This course will first cover basic algebraic and geometric concepts necessary for a more solid algebra background needed for a two year college or trade school student. In addition, a portion of the course will give the students a stronger understanding of financial mathematics, such as banking, credit, taxes, budgeting, auto and home ownership, investing and retirement planning. This course will give the students a sound base to become independent and responsible members of society.

Geometry (A) and Geometry (B)

These courses introduce material that deals with inductive and deductive proofs on plane figures (triangles, quadrilaterals, and circles), constructions, perpendicular lines and planes, polygons, and similar figures coordinate Geometry. Loci Geometry of triangles and circles, transformations, and areas and volumes of shapes are also discussed with solid geometry.

Algebra 2 (A) and Algebra 2 (B)

These courses begin with a review of the concepts and standards covered in Algebra 1(A) and Algebra 1(B) and continue to build upon those foundational principles. The following concepts and topics are addressed in this sequence: (1) Basic Concepts of Algebra, (2) Inequalities and Proofs, (3) Linear Equations and Functions, Systems of Equations and Inequalities, (4) Products and Factors of Polynomials, (5) Rational

Expressions and Equations. This course also introduces (6) Radicals, Irrational and Complex Numbers, (7) Quadratic Equations and Functions, and (8) Exponential and logarithmic Functions. Students who did not pass the Keystone Algebra 1 exam will prepare to retest in this course.

• *Prerequisites: Algebra 1(A) or Algebra 1(B)*

Algebra 1 (A) and Algebra 1 (B)

The basic foundations and applications of Algebra are developed and studied. This course introduces students to symbols and sets, variables and open sentences, axioms, equations, problem solving skills, inequalities, polynomials, special products and factoring, fractions, graphs, and real numbers.

Math 9

This course is for students who need additional instruction in foundational mathematical skills before taking Algebra at the high school level. The course will cover the essential prerequisites to Algebra 1, focusing on the following critical areas: (1) connecting ratio and rate to whole number multiplication and division and using concepts of ratio and rate to solve problems and developing understanding of and applying proportional relationships; (2) completing understanding of division of fractions and extending the notion of number to the system of rational numbers, which includes negative numbers; and developing understanding of operations with rational numbers (3) writing, interpreting, and using expressions and equations and working with expressions and linear equations; (4) formulating and reasoning about expressions and equations, and solving linear equations and systems of linear equations; (5) grasping the concept of a function and using functions to describe quantitative relationships; (6) understanding and applying the Pythagorean Theorem.

SCIENCE

Academic Biology

This course will include a discussion of the unique properties of living organisms that set them apart from the non-living organisms, a presentation of molecular and cellular biology, and a presentation of the concepts of reproduction and genetics. Other topics studied include: scientific classification, microbiology, multicellular plants, invertebrate animals, and vertebrate animals.

Applied Biology-Chemistry 1

In this course the major emphasis is on Biology. A detailed description of biological principles and an application of these principles to everyday life are concepts studied in this course. Units on basic animal and plant reproduction will be studied. In addition, the students will study various plant and animal classes to obtain an

understanding of basic structure, anatomy, and application to human life. Last, a unit that studies environmental application concludes the course.

Chemistry 1

This course is designed for the academic student who has little or no background in chemistry. The course is the study of the relationship between the structure and properties of matter and the changes that matter undergoes. Chemistry I uses a laboratory and problem-solving approach in addition to a lecture approach to the understanding of the important principles being taught. The course emphasizes the following subject areas: metric system, scientific notation, percent error, phases of matter, atomic structure, subatomic structure and size, electromagnetic spectrum, quantum numbers, chemical bonding, periodic table, periodicity of the elements, chemical formulas, types of chemical reactions, chemical equations, stoichiometry, mole concept, solutions, kinetics, and the gas laws.

• Prerequisite: A student should have completed Algebra 1(A) or should be taking Algebra 1 (A) simultaneously.

Applied Biology-Chemistry 2

In this course the major emphasis is on Chemistry and its uses in everyday life. The course begins with an introduction / review of the metric system and the metric system's relevance to the future world of employment and everyday life. Next, a detailed look at various physical and chemical changes will be studied, and the students will apply this knowledge to the workplace and to everyday life. Some of the other units studied are as follows: Uses and Applications of Various Acidic and Basic Chemicals; Basic Elements and Chemicals Utilized in the Workplace and at Home; and Hydrocarbons.

Anatomy and Physiology

This college level course introduces the student to the structures and functions of the human body. This is a year-long study that explores each of the 11 body systems and their relationship to the overall function of the human body. Course topics will include the organization of the body at the molecular, cellular, and tissue levels and homeostatic mechanisms associated with the endocrine, integumentary, skeletal, muscle, nervous, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems of the human body. This course prepares students considering careers in health professional fields such as nursing, physical therapy, occupational therapy, biology/pre-med.

• Prerequisite: This course is available to 11th and 12th grade students who have passed Biology/Applied-Biology Chemistry 1 and Chemistry 1/Applied Biology-Chemistry 2.

College Introduction to Exercise Science

This college level course introduces students to the field of study that is exercise science. Students will explore the fundamentals of physical activity, health, diet, obesity and other topics and their relationship to career pathways in exercise physiology. Course topics also include an introduction to physical conditioning and health maintenance at all age levels. Furthermore, this explores several different career options in the field and certification options in professional organizations such as ACSM, NCSA, and others.

Prerequisite: This course is available to 11th and 12th grade students who have passed Biology/Applied-Biology Chemistry 1 and Chemistry 1/Applied Biology-Chemistry 2. Students are encouraged to take Anatomy and Physiology prior to taking this course.

College Chemistry

This course is designed to be the equivalent of the general chemistry course usually taken during the first college year. It will illustrate through hands-on laboratory experiments, the concepts introduced in General Chemistry. The topics covered in this course will be: Fundamentals of Chemistry, Atomic and Molecular Structure, Stoichiometry, The Periodic Table, Qualitative and Quantitative Analysis, Solution Chemistry (oxidation-reduction reactions), Properties of Gasses, Chemical Bonding and the VSEPR Theory, Acid and Base Theories, Chemical Kinetics, Volumetric Analysis, Thermodynamics, Organic Chemistry, and Nuclear Chemistry. It is intended for students who are interested in careers in the science field including medicine and engineering. It is intended to provide students with extensive problem solving and information equivalent to college level freshman chemistry. Students should attain a depth of understanding of fundamentals and a reasonable competence in dealing with chemical problems. The course should contribute to the development of the students' abilities to think clearly and to express their ideas, orally and in writing, with clarity and logic. The college course in general chemistry differs qualitatively from the usual first secondary school course in chemistry with respect to the kind of textbook used, the topics covered, the emphasis on chemical calculations and the mathematical formulation of principles, and the kind of laboratory work done by students. Quantitative differences appear in the number of topics treated, the time spent on the course by students, and the nature and the variety of experiments done in the laboratory.

 Prerequisite: A student must obtain an 87 % or higher in Chemistry 1 and the successful completion of Algebra II (A). The course is open to 11th and 12th grade students.

College Biology

This is a college level course which is designed for students who have earned above average grades in Biology and Chemistry and who are considering a career in a Biology related field. The course includes many of the topics which are commonly covered in a Freshmen College Biology Course. The topics covered in the course include: Biochemistry, Cellular Biology, Molecular Biology, Genetics, Evolution, Microbiology, Plant Anatomy/Physiology, and Animal Anatomy/Physiology.

 Prerequisite: A student must obtain an average of 87% or higher in both Academic Biology and Chemistry and have passed the Keystone Biology exam to enroll in this course.

Honors Physics

This course involves both a lecture and laboratory component in which students explore the fundamental principles of physics, including mechanics, kinematics, momentum, statics, work, energy, heat, waves, sound, electricity, magnetism, and light and is intended for students who plan to attend a four-year college majoring in a field related to engineering, mathematics, or a similar concentration. An emphasis will be placed on the mathematical theory behind the principles of physics.

 Prerequisites: Open to students in grades 11 and 12 who have taken Pre-Calculus or College Calculus or will be taking Pre-Calculus concurrently.

Physics

This is a lecture/laboratory course which stresses the fundamental principles of mechanics, kinematics, momentum, statics, work, energy, heat, waves, sound, electricity, magnetism, light, atomic and nuclear physics, and radioactivity.

 Prerequisites: Open to students in grades 11 and 12 who have taken College Algebra or will be taking College Algebra simultaneously with Physics.

Applied Physics 1

Students in Applied Physics will be introduced to the principles of motion, Newton's Laws of Motion, friction, density, and simple machines. Additionally, students will study electrical, potential, and kinetic energies. Students will complete hands-on labs throughout the course, and the principles of physics will be examined using problem-solving skills, mathematics, and discovery learning.

Environmental Science

This course is a student activity-centered program with a non-mathematical approach toward the study of environmental studies. Students will apply learned principles to real world situations and form analogies between the various environmental systems.

SOCIAL STUDIES

Street Law

Street Law is designed to provide practical information and problem solving opportunities that will develop in students the knowledge and skills necessary for survival in our law-saturated society. Topics to be covered are law and the legal system, criminal and civil law, family law, housing law and individual rights and liberties. The curriculum includes case studies, role-playing group activities and discussions. Community resource people, such as lawyers and police officers will speak. Community experiences, such as court tours and prison visits will be utilized. The course will promote in the student a willingness and the capability to participate in the legal and political system.

• *Prerequisite: This course is open only to seniors.*

U.S. Cultures 2

This course studies and analyzes social, cultural, political, and military developments in the history of the United States from the end of World War 1 through the present. Important themes include, but are not limited to; the 1920's, Great Depression, World War II, the Cold War, Korea, Vietnam, the Civil Rights Movement, and twenty-first century challenges in the post-Cold War era.

U.S. Cultures 1

This course studies and analyzes social, cultural, economic, political, and military developments in the history of the United States from the pre-Civil War era through the decade of the Twenties. Important themes include the causes of the Civil War, a thorough examination of the Civil War, post-Civil War industrialization, the Spanish-American War and imperialism, the Progressive Era, and World War I.

Western Civilization and Government

This course examines and analyzes social, cultural, technological, political, economic and intellectual advancements in World History throughout all of the major eras. The curriculum also includes the rise of a republican form of government and creation of the United States of America. Important themes include Prehistoric Time, Ancient Civilizations, the Middle Ages and the Modern Era. The impact of democratic principles proposed by the European Enlightenment philosophers on the development of the United States Constitution will be explored. The course will also explain topics in American government that will include, but not be limited to: Federalism and the Constitution, Separation of Powers, Federal, State & Local Governments, Civil Liberties, Rights and Responsibilities.

College Psychology

This course will provide students with a basic foundation and understanding of the main theories, principles, and concepts of psychology at a structure and pace similar to that of an introductory psychology course at a college or university. Students enrolled in this course may purchase credits through Mount Aloysius College for completion of this course.

 Prerequisite: This course is only open to juniors and seniors, with preference given to seniors.

Current Events & Issues

Semester

Using current events, this elective course focuses on world and local issues that affect students' everyday lives, such as economics, government, and conflict. This course uses newspapers, articles, online media, cartoons, social media, online forums, and newscasts to support class discussion. Additionally, students participate in group projects, presentations, and work with primary source materials and opinion pieces in order to better understand the world around them.

• Prerequisite: US Cultures 1 and Western Civilization and Government

<u>Travel the World</u> Semester

This elective course is designed to foster a desire and appreciation for both domestic and international travel, as well as the skills and cultural appreciation necessary to ensure successful trips. Students will use the personal experiences of the instructor and the variety of resources available on the world wide web to put together travel information packets and vacation packages, which can be used to help students with future travel plans. Students will be expected to put together projects and presentations that demonstrate a basic understanding of physical and cultural geography, math, and communication skills. This course is open to all students in grades 10-12.

TECHNOLOGY AND ENGINEERING

Introduction to Drafting and Design

This nine-week course is intended to introduce students to the "Designed World." Students will review measurement, practice sketching skills, and learn basic drafting concepts. This course will focus on mechanical drafting techniques but will also introduce computer-aided drafting skills. After completion of this course, students will be prepared for various engineering fields of study.

Engineering and Design

This class is an entry-level course for students interested in technical drawing and computer-aided drafting (CAD). After a review of basic sketching, students will use

mechanical drafting skills to create pictorial and 2-D drawings. Students in this course will use AutoCAD software to create computer-aided drawings and will expand on 2-D and 3-D models as well as sectional and auxiliary views.

 Open to all grade levels. This course is a prerequisite for future Drafting & Design courses. This course is **not** available to students who have previously taken CAD I or CAD II.

Parametric Modeling

This advanced drafting course has a specialized focus on developing 3-D computer-aided designs. Students will learn the procedure for transforming a solid model into a parametric model and the procedures for changing and maintaining the parameters. Students will learn to arrange parts in assembly drawings and will build individual parts and create animations to show assembly procedures. Projects can range from simple blocks to multiple-part items such as small gas engines.

• Engineering and Design will be a prerequisite for this course.

Architectural Design

This class is an advanced drafting course with a specialized focus on architectural design. Students will study the history of architectural design, basic house designs and considerations, room layout/planning, plot plans, wall sections, elevations, and floorplans. By the completion of this course, students will create sketches and full computer-aided blueprints for a residential structure. Architectural modeling will also be explored in this course.

• Engineering Drawing and Design will be a prerequisite for this course.

Exploratory Technology Education

This nine-week course is designed to introduce students to five areas of technology education: manufacturing, communication, transportation, construction, and bio-technology. Students will utilize the Engineering Design Process to solve real-world challenges related to the five areas of technology. Students interested in these topics can then pursue additional opportunities in other, more specialized areas of Technology and Engineering Education throughout their high school careers.

Foundations of Technology

This course addresses a wide variety of topics within the engineering fields of study, including an introduction to manufacturing, transportation, construction, communication, and biotechnology. This year-long course is intended for students who plan to take other engineering related courses throughout high school. Students will gain experience in both the "Designed and Engineering Worlds" while working on problem-solving skills and hands-on activities with a STEM focus.

 Open to all grade levels. This course is a prerequisite for future Engineering courses. This course is **not** available to students who have previously taken Technology Education I.

Principles of Engineering

This course will expand students' knowledge of engineering related fields and is divided into two parts: manufacturing and robotics engineering. For half of this course, students will use manufacturing techniques and processes to create hands-on projects made of wood, metal, and plastic. In the second half of the course, students will be introduced to the world of robotics and programming. Students will solve real-life challenges while learning basic programming skills. This course follows the Carnegie Mellon Robotic Institute curriculum with the LEGO NXT platform.

• This course is open to students in grades 10-12 who have previously taken Foundations of Technology, which is the prerequisite for this course.

Digital Design

Students in Digital Design are introduced to basic design concepts. Students will use the principles of design and design elements to create computer-aided graphics. Using the Adobe Suite (Illustrator/Photoshop), students will become proficient in desktop publishing, layout, and digital photography.

• This semester course is open to sophomores and is partnered with Art 10.

MUSIC

Chorale

This group is open to all students grade 9 through 12. Several goals of the chorale include having all students learn and perform a well-balanced and varied selection of concert choir music, and give students in grades 10 through 12 an opportunity to audition for PMEA district, regional, and state festivals, and to create memories that are special and unique. Students will be expected to try their best regardless of their level of talent, be responsible for their music folder, and sing all selected music.

• Requirements: Students will be required to be in attendance at all performances (approximately 2 per year).

Concert Band

This ensemble is open to all students grade 9 through 12 who have an interest in playing their individual instrument. Several goals of the concert band include having all students learn and perform a well-balanced and varied selection of wind band literature, expand their expertise of their own instrument, give all students in grades 10 through 12 the opportunity to audition for PMEA music festivals, create an inviting musical atmosphere for all students no matter his or her ability level, and create lifelong musical memories for all students.

 Requirements: Students will be required to be in attendance at all performances (approximately 2 per year).

Contemporary Music Ensemble

This ensemble is open to 9-12 grade students who have an interest in contemporary music. This course is designed to facilitate music learning through more contemporary idioms such as rock, jazz, metal, and punk band music. Students in this class will be responsible for collaborating with other students, writing lead sheets, and learning their own particular parts.

Requirements: Students will be required to be in attendance at all performances (approximately 2 per year). Students must be proficient in one or more of the following instruments: Acoustic guitar, electric guitar, bass guitar, keyboards, drum set, horns or vocals. This class is available by audition only.

Music Theory

In this dual enrollment course, the students will use the "Musicians Guide to Theory and Analysis" textbook and corresponding workbook as the basis for an in depth study of music theory. The course will focus on the basic elements of music including pitch, rhythm, chords, diatonic harmonies, chromatic harmonies, form, and structure. This course is designed for students who are already familiar with basic musical concepts and are seeking a more rigorous academic approach to music.

Requirements: Students must be in grades 10-12 and have taken at least one Cambria Heights High School music elective.

Audio Media Technology

This course is designed for students who have an interest in and appreciation for music. Students will begin by studying the basic mathematical and physical principles that define the behavior of sound. From there, students will learn how different pieces of audio hardware and software can manipulate sound and what technologies are applicable to certain situations. Once this basic understanding is established, students will be given a series of projects that will culminate in real hands-on experience doing live sound reinforcement, studio recording, live recording, mixing, editing, and mastering.

• This course is open to students in grades 9 – 12.

Vocal Extension

Vocal Extension is a class designed for students who enjoy singing to take their skills to the next level. This class will involve more difficult concert (mostly unaccompanied) concert selections and additional performances. Students who plan on participating in vocal PMEA festivals may also consider taking this course for extra help in preparing their music.

• Participation in this class is through audition only.

KEYSTONE REMEDIATION

Keystone Remediation

Semester

Keystone Remediation courses are designed for students who have not successfully demonstrated proficiency on the Keystone Algebra I, Biology, or Literature Exam on the first attempt. Teachers of these courses analyze students' prior testing data to specifically address each student's areas of need to increase the likelihood that the students will demonstrate proficiency during the next test administration. Keystone Biology and Algebra I remediation will meet three times each six day rotation for one semester. Keystone Literature remediation will meet two times each six day rotation.

• Students in these courses will be given elective credits on a pass/fail basis.