

**Williamsburg High School**

# **Scheduling Guide**



**2024-2025**

## ***Graduation Requirements***

In order to earn a diploma from Williamsburg Jr./Sr. High, students must complete the following requirements:

- Demonstration of proficiency on the following Keystone exams\*: Algebra I, Literature, and Biology  
\*If unsuccessful, students may complete a Pathway to graduation.
- Satisfactory completion of the Graduation Portfolio
- Successful completion of 26 credits, with a minimum distribution in the following specified content areas:

<b>SUBJECT AREA</b>	<b>WHS CREDIT REQUIREMENTS</b>	<b>WHS/GACTC CREDIT REQUIREMENTS</b>
<b>English</b>	<b>4.0</b>	<b>4.0</b>
<b>Mathematics</b>	<b>4.0</b>	<b>4.0</b>
<b>Science</b>	<b>4.0</b>	<b>3.0</b>
<b>Social Studies</b>	<b>4.0</b>	<b>3.0</b>
<b>Physical Education/Health</b>	<b>2.0</b>	<b>2.0</b>
<b>Arts &amp; Humanities</b>	<b>2.0</b>	<b>2.0</b>
<b>Electives</b>	<b>6.0</b>	<b>8.0</b>
<b>TOTAL CREDITS</b>	<b>26</b>	<b>26</b>

\*\*Students must accumulate the following credit requirements in order to be promoted to each grade level (Board Policy #215).

Grade 10 (Sophomores) 6 credits

---

Grade 11 (Juniors) 13 credits

---

Grade 12 (Seniors) 19 credits

## Four-Year Plan

Grade 9		Grade 10	
Recommended	Credit	Recommended	Credit
English 9*	1.0	English 10*	1.0
American Cultures II	1.0	World Cultures	1.0
Mathematics	1.0	Mathematics	1.0
Biology*	2.0	Chemistry or Ag Science	1.0
Spanish II/Foreign Language	1.0	Health	0.5
Physical Education	1.0	Physical Education	0.5
Intro to Art	1.0	Electives	2.0
Elective	1.0		
Grade 11		Grade 12	
Recommended	Credit	Recommended	Credit
English 11	1.0	English	1.0
Civics	1.0	Social Studies	1.0
Mathematics	1.0	Mathematics	1.0
Chemistry II or Ag Science	1.0	Science	1.0
Electives	3.0	Electives	3.0

Common Math Sequences:

Algebra I\*> Algebra II>Geometry>Precalculus>Calculus

Accelerated Algebra Ib\*>Geometry>Algebra II>Precalculus

Algebra Ib\*>Geometry>Algebra II

Applied Algebra I\*>Algebra Ib\*> Geometry>Algebra II

Algebra Ib>Technical Math>Technical Math II>Resource Management

Students also have the opportunity to take Technical Math once they pass the Keystone Exam.

\*Indicates that a course culminates in a Keystone Exam.

Some courses have prerequisites in order to enroll; check the course descriptions for details.

## *Scheduling Changes*

### **WHS DROP/ADD POLICY**

1. All schedule change requests must occur during the summer or first week of school.
2. Schedules are not changed after Labor Day. Students are expected to make the full year schedule (including semester classes) prior to Labor Day.
3. Students wishing to add a class after the first week of school will be permitted at the discretion of the subject teacher and administration.
4. Students wishing to drop an elective class or study hall for a core class will be considered at the discretion of the subject teacher and administration.
5. Changing a core class requires written parent permission.
6. If you fail a required course for graduation or attend summer school, it is your responsibility to request a change in your schedule for the next year.
7. Schedule change requests made so that a student can be with friends will not be considered.
8. Students taking Dual Enrollment Classes need to abide by the college drop/add time frame. Classes taken with Allegany College of Maryland have a drop deadline prior to the first day of school.

Scheduling information will be reviewed with all students in grades 9-11 at the end of each school year. Students will have the opportunity to meet individually with the school counselor to address scheduling needs and graduation requirements.

High School Counselor: Carrie Loose  
832-2125 option 4  
cloose@williamsburg.k12.pa.us

## *Technical Education Programs*

### **GREATER ALTOONA CAREER & TECHNOLOGY CENTER (GACTC)**

The following courses are available at the GACTC:

#### **HIGH SCHOOL PROGRAM DIRECTORY**

Automotive Technology	Culinary Arts	HVAC/R
Automotive/Diesel Technology	Dental Assistant	Interior Decorating & Finishing
Baking & Pastry Arts	Digital Communications	Logistics & Supply Chain Management
Cabinetmaking/Finished Carpentry	Electrical Trades	Masonry
Carpentry/Construction	Electro Mechanical Engineering Technology	Outdoor Power Equipment Technology (OPE)
Collision Repair & Refinishing Technology	Emergency Services	Precision Machining
Computer & Networking Technology	Engineering Design Technologies	Service Occupations
Computer Programming	Graphic Design	Welding Technology
Cosmetology	Health Occupations	

Visit <https://www.gactc.edu/> for more information.

**GACTC Applications are available to 9<sup>th</sup> grade students. They are distributed in November and due in the guidance office by Christmas break. Applying after Christmas is acceptable, but due to programs filling up, some programs become closed for enrollment. If a 10<sup>th</sup> grade student wants to apply, stop in the guidance office for an application. Some programs can be completed in two years.**

### **WILLIAMSBURG AGRICULTURE PROGRAM**

Williamsburg High School offers Agriculture Production as a Technical Education Program of Study. The agricultural production curriculum is designed to expose students to the many facets of production agriculture and to related careers that support the agricultural industry. On any given day, students in Agricultural Education could be building an Adirondack chair in the shop, dissecting a pig in the classroom or planting hanging baskets in the greenhouse. Other students could be evaluating soil types for levels of erosion and more still are practicing their public speaking skills. Agricultural Education is not just for farm kids, it prepares ALL students for careers in the #1 industry in Pennsylvania. During the senior year, students that have completed 50% of the Ag Program have the opportunity to work as part of an Agricultural Internship.

#### **INTRO TO AG**

Students will build their foundation of agricultural knowledge and the FFA organization. Students will study the different career opportunities available within the agricultural industry and how agriculture impacts the local community. Finally, students will be introduced to the agricultural shop and FFA competitions.

**Full Year Class                      Suggested Grade: 9                      Credit: 1**

#### **AG MECHANICS I**

Students will gain skills to perform basic home repairs. Topics covered include electricity, plumbing, woodworking, masonry and business. Students will learn how to safely use tools, design and layout projects, and calculate costs of production.

**Prerequisites: Introduction to Agriculture Strongly Encouraged**

**Full Year Class                      Suggested Grade: 10-12                      Credit: 1**

#### **AG MECHANICS II**

Students will explore additional areas of agricultural mechanics. Students will work on small gas engines, design their own woodworking project and simulate the operation of a business.

**Prerequisites: Introduction to Agriculture Strongly Encouraged**

**Full Year Class                      Suggested Grade: 10-12                      Credit: 1**

#### **HORTICULTURE**

Students will explore the use and history of plants in modern landscapes before designing their own landscape. Furthermore, students will explore the science of plant growth through the operation of the school's greenhouse. Finally, the class will explore different marketing and management methods through the plant sale.

**Prerequisites: Introduction to Agriculture Strongly Encouraged**

**Notes: CASE Course - Articulation Agreement with Rutgers University and Delaware Valley**

**Full Year Class                      Suggested Grade: 10-12                      Credit: 1**

## ***Technical Education Programs***

### **ANIMAL SCIENCE**

Students will explore the use of animals in society from both a current and historical perspective. Students will study the anatomy and physiology of animals the functions of key body systems. Finally, students will understand how to properly care for and house animals.

**Prerequisites: Introduction to Agriculture Strongly Encouraged**

**Notes: CASE Course - Articulation Agreement with Rutgers University**

**Full Year Class                      Suggested Grade: 10-12                      Credit: 1**

### **NATURAL RESOURCES**

Students will explore the natural world around them. Different topics to be covered include: soil science, forestry management, wildlife and aquatic habitats. In addition, students will explore renewable energy and green technologies. Throughout the entire course, students will be asked to reflect on the interaction between humans and the environment.

**Prerequisites: Introduction to Agriculture Strongly Encouraged**

**Notes: CASE Course - Articulation Agreement with Rutgers University**

**Full Year Class                      Suggested Grade: 10-12                      Credit: 1**

### **SUPERVISED AGRICULTURE EXPERIENCE (SAE)**

In this independent and online course, agricultural students will maintain records of their Supervised Agricultural Experience using the AET system. Students will also have additional assignments and responsibilities to complete throughout the course. Students can enroll in this course every year, grades 9-12.

**Notes: *Students require permission from the instructor to enroll in the course. Students must be enrolled in the Agricultural Program and are expected to participate in the Williamsburg FFA Activities.***

**Full Year Class                      Suggested Grade: 9-12                      Credit: 1**

### **AG INTERNSHIP**

This course is only available to qualifying seniors who must apply to be considered for the program. Students will work 15 hours per week in the agricultural industry as part of their daily instruction. Students will gain real world work experience while completing their high school education.

**Prerequisites: Must have completed 50% of Agricultural Program Course Work**

**Notes: Students will need to take an active role in establishing their Internship program. Students are notified if they qualify for this course.**

**Full Year Class                      Suggested Grade: 12                      Credit: 3**

### ENGLISH DEPARTMENT

#### **ENGLISH 9**

This course is primarily geared towards the PA Core Literature Standards. As such, we will read literature, both fiction and non-fiction, that is at or slightly above grade level, looking at literary devices, building connections and comprehension, and polishing responses to literature that demonstrate both understanding and depth. Vocabulary is woven throughout the class and is drawn from the writing and reading that students will use in their course of study. The course uses the Pearson Common Core Literature series as well as grade appropriate novels.

**Prerequisites:** Grade 8 ELA

**Notes:** The Keystone Literature Exam is administered at the conclusion of this course.

**Full Year Class**                      **Suggested Grade:** 9                      **Credit: 1**

#### **ENGLISH 10**

This course is primarily geared towards the PA Core Literature and Writing Standards. As such, we will read literature, both fiction and non-fiction, that is at or slightly above grade level, looking at literary devices, building connections and comprehension, and polishing responses to literature that demonstrate both understanding and depth. Vocabulary is woven throughout the class and is drawn from the writing and reading that students will use in their course of study. The course uses the Pearson Common Core Literature series as well as grade appropriate novels.

**Prerequisites:** English 9

**Notes:** The Keystone Literature Exam is administered at the conclusion of this course.

**Full Year Class**                      **Suggested Grade:** 10                      **Credit: 1**

#### **ENGLISH 11**

In this course, students will become stronger writers and readers, participate in thoughtful discussions, and discover new ideas about important historical periods and American writers. Students will write a research paper, a resume, and cover letter. They will also participate in silent reading and vocabulary studies.

**Prerequisites:** English 10

**Full Year Class**                      **Suggested Grade:** 11                      **Credit: 1**

## ***Course Descriptions***

### **ENGLISH 12**

In this course, students will become stronger writers and readers, participate in thoughtful discussions, and discover new ideas about important historical periods and British writers. Students will practice college-level writing skills and apply them to several essays, including a research paper. They will also participate in silent reading and vocabulary studies.

**Prerequisites:** English 11

**Full Year Class**                      **Suggested Grade: 12**                      **Credit: 1**

### **TECHNICAL ENGLISH**

This course is designed to meet the needs of students advancing into the workforce or a technical training program following graduation from WHS. The primary focus will be on building the skills students need in those demanding environments which involve working with others and meeting the needs of customers.

**Full Year Class**                      **Suggested Grade: 12**                      **Credit: 1**

### **COLLEGE ENGLISH 101**

This course is designed in cooperation with Allegany College of Maryland. Students may take it for a dual-enrollment option to earn three credits through ACM if they register and pay the enrollment fee. It is a writing course focused on the following types of writing: reflection, observation, argumentation, and analysis. Vocabulary is woven throughout the class and is drawn from the writing and reading that students will use in their course of study. Students enrolled in the course can expect to be graded using college standards.

**Prerequisites:** A grade of at least an 85% or greater in English 11 and/or teacher recommendation

**Notes:** Dual Enrollment Class—must have teacher signature to schedule. All students must pay for course. A bill will be mailed to each family from ACM upon registration.

**Semester Class**                      **Suggested Grade: 12**                      **Credit: 1**

### **COLLEGE ENGLISH 103**

This course is designed in cooperation with Allegany College of Maryland. Students may take it for a dual-enrollment option to earn three credits through ACM if they register and pay the enrollment fee. This course is intended to introduce the student to literary forms and approaches to literary criticism, to increase his/her reading ability and analytical skills, and to lead the student to form standards of taste and judgment. Recommended for pre-law students, students in humanities or social and behavioral sciences, and all those whose chosen careers involve analysis, interpretation, and evaluation.

**Prerequisites:** English 101

**Notes:** Dual Enrollment Class—must have teacher signature to schedule. A bill will be mailed to each family from ACM upon registration.

**Semester Class**                      **Suggested Grade: 12**                      **Credit: 1**

### MATH DEPARTMENT

#### **MATH 9**

Math 9 is pre-algebra with a main focus on the introduction of expressions and equations, systems of linear equations, functions, the Pythagorean Theorem, and analysis of two- and three-dimensional figures, while improving basic math computation and problem-solving skills.

**Prerequisites:** Math 8

**Full Year Class**

**Suggested Grade: 9**

**Credit: 1**

#### **APPLIED ALGEBRA I**

Applied Algebra is designed to introduce/review the algebraic concepts that are on the Keystone Algebra Exam and follow the Algebra 1 eligible content standards of Operations with real numbers and expressions, Linear equations, Linear Inequalities, Functions, Coordinate Geometry and Data Analysis.

**Prerequisites:** Completion of PreAlgebra or Math 9

**Notes:** The required PA State Assessment Keystone Exam in Algebra I will be administered at the end of this course. Students must pass Keystone trigger course for pathways to graduation.

**Full Year Class**

**Suggested Grade: 9,10**

**Credit: 1**

#### **ALGEBRA IB**

Algebra IB is a course that is designed to advance students through their understanding of algebraic concepts. The first half of the year will review and dive deeper into the algebraic concepts that students learned in Algebra IA. The topics that will be expanded upon are real numbers, solving linear equations, functions, graphing linear functions, systems of linear equations, exponents properties, and data analysis. New concepts that will be covered will include solving and graphing inequalities, solving and graphing systems of inequalities, and factoring.

**Related Textbook:** Pearson Algebra 1 Common Core

**Prerequisites:** A grade of at least a 70% or greater in Algebra IA and/or teacher recommendation.

**Notes:** The required PA State Assessment Keystone Exam in Algebra I will be administered at the end of this course. Students must pass Keystone trigger course for pathways to graduation.

**Full Year Class**

**Suggested Grade: 9**

**Credit: 1**

#### **ACCELERATED ALGEBRA IB**

The first part of this course will be a review of the concepts that were covered in the Accelerated Algebra IA course excluding the geometry concepts. The goal of overlapping the Algebra IA concepts is to review, strengthen understanding, and provide an opportunity to fill in gaps in the students learning. The course will then continue covering the second half of the Algebra I concepts including solving and analyzing inequalities / systems of inequalities, factoring, simplifying rational expressions and data analysis.

**Related Textbook:** Pearson Algebra 1 Common Core

**Prerequisites:** A grade of at least an 80% or greater in Accelerated Algebra IA and/or teacher recommendation.

**Notes:** The required PA State Assessment Keystone Exam in Algebra I will be administered at the end of this course. Students must pass Keystone trigger course for pathways to graduation.

**Full Year Class**

**Suggested Grade: 9**

**Credit: 1**

## Course Descriptions

### ALGEBRA I

Algebra I is the transition from the central focus of arithmetic to a more abstract, yet applicable use of arithmetic and real numbers in the world around us. Though not exclusive, this course will have a heavy focus on linear functions and relations. This course will provide a deep understanding into the concepts of real numbers, exponent properties, analyzing and graphing relations / functions, solving and analyzing linear equations / systems of equations, solving and analyzing inequalities / systems of inequalities, and data analysis.

This course will cover the Geometry concepts of transformations, volume of cones, cylinders, and spheres, as well as the Pythagorean Theorem.

All concepts covered will have a heavy emphasis on application and prepare students for Algebra II and put them on track for higher levels of math. (NOTE: This course will complete the entire concepts of Algebra I in a single school year. The pace and demands of this course will reflect that.)

**Related Textbook:** Pearson Algebra 1 Common Core

**Prerequisites:** 93% or higher final grade in Pre-Algebra 7, ability to complete operations of rational numbers without a calculator, and/or teacher recommendation.

**Notes:** The required PA State Assessment Keystone Exam in Algebra I will be administered at the end of this course. Students must pass Keystone trigger course for pathways to graduation.

**Full Year Class**                      **Suggested Grade: 8**                      **Credit: 1**

### ALGEBRA II

This course is designed to extend the principles and concepts studied in Algebra 1 and move beyond linear into nonlinear concepts. Some of these concepts may include factoring, quadratics, complex numbers, polynomials, radical functions, exponential functions, logarithmic functions, and rational functions. Applications in the real world will be explored in many of these concepts.

This course will require a level of analysis and critical thinking beyond what was required in the Algebra I course. This course will also require more time out of class studying and practicing the concepts being covered.

Students taking this course should be ones who have the capability to understand the Algebra II concepts. Two Algebra II courses are offered during the school day.

One class presents the concepts at a slower pace. These students also may require a little more class time to practice and apply these concepts. Application will be explored but may not be delved into quite as deeply. The faster pace course will delve into topics more deeply.

Algebra II is an academic course and successful completion may be used as a springboard into higher level math courses offered here at WHS.

**Related Textbook:** Pearson Algebra 2 Common Core

**Prerequisites:** Passing of the keystone algebra exam and a grade of 85% or greater in Honors Algebra 1 / a grade of 88% or greater in Accelerated Algebra IB and/or teacher recommendation.

**Notes:** Students will utilize graphing calculators throughout this course. Students will need a solid understanding of all Algebra I concepts and can recall these with some reteaching.

**Full Year Class**                      **Suggested Grade: 9,10,11,12**                      **Credit: 1**

### RESOURCE MANAGEMENT

A year long course dealing with consumer topics to prepare students to function in society. A general knowledge of mathematics is essential. Topics included in the course are income, banking, and credit, buying and maintaining a car, buying a house and expenses for repairs, taxes, insurance and investments, and operating on a budget. Students taking this class will also be exposed to a review of basic algebra.

**Full Year Class**                      **Suggested Grade: 10,11,12**                      **Credit: 1**

## Course Descriptions

### **TECHNICAL MATH I**

This course will focus on the required math skills that are applicable in today's workforce. The focus of this course will be on the application of these skills more than just completing computations or finding a value to a variable. The concepts and topics this course may cover, will range from skills required for entry level employment through careers that may require some additional post-secondary education. The course is designed and based on the various levels of applied mathematics used by ACT for the Work-Keys Job Skills Assessment.

**Prerequisites:** Be able to complete basic math operations without a calculator (including decimals and fractions). Be able to complete operations with rational numbers and follow order of operations with the aid of a calculator.

**Full Year Class**

**Suggested Grade: 10, 11, 12**

**Credit: 1**

### **TECHNICAL MATH II**

This course teaches students how to take the applied math skills they have learned over their years of schooling and in Tech Math I and apply them to everyday life and real-world situations in complex ways. Tech Math II focuses more on the complexity of using the skills learned in the prior course as well as applying graphic literacy for data analysis and decision making. The students will then learn how to apply all of these skills in the operation and running of a business.

**Prerequisites:** Be able to do basic computations (arithmetic) with decimals, fractions, and integers. Work with percentages, converting units of measurement, geometric formulas, apply workplace formulas, and complex ratios & proportions. Have a basic understanding on how to read and locate information on tables, charts, & graphs.

**NOTE:** Prior completion of the Tech Math I course is not required to be successful in Tech Math II. However, it would be very beneficial and advisable for a student to complete Tech Math I before enrolling in the Tech Math II course.

**Full Year Class**

**Suggested Grade: 11,12**

**Credit: 1**

### **GEOMETRY**

This course is the study of geometrical concepts. Topics will include the study of points, lines, planes, angles, pairs of angles, parallel and perpendicular lines, work within the coordinate plane, congruent and similar polygons, Pythagorean Theorem and triangle inequalities, quadrilaterals, circles, and right triangle trigonometry. Students will strive to understand and construct many two-column proofs. A strong Algebra I background is needed as many algebra concepts are woven throughout this course, especially solving multistep equations. This class can move quickly and outside work will be required.

**Related Textbook:** Holt McDougal Geometry (with online subscription)

**Prerequisites:** A grade of 80% or greater in Algebra II or a grade of 90% or greater in Accelerated Algebra 1B and/or teacher recommendation.

**Notes:** Students will be expected to attempt the challenge problems in each section and be able to use critical thinking and reasoning skills.

**Full Year Class**

**Suggested Grade: 10,11,12**

**Credit: 1**

## Course Descriptions

### **PRINCIPLES OF GEOMETRY**

This course will focus on the basics of geometrical concepts without the construction of proofs. Topics will include the study of points, lines, planes, angles, pairs of angles, parallel and perpendicular lines, work within the coordinate plane, congruent and similar polygons, Pythagorean Theorem and triangle inequalities, quadrilaterals, circles, and basic right triangle trigonometry. The class will move at a pace consistent with students' ability with a heavy emphasis on review of concepts throughout the year. A proficient Algebra I background is necessary as many concepts will involve solving equations to complete problems. Outside work may be necessary at times if work is not completed during class time.

**Related Textbook:** Holt McDougal Geometry (with online subscription)

**Prerequisites:** A grade of 77% or greater in Accelerated Algebra 1B or a grade of 88% or greater in Algebra 1B or a grade of 88% or higher in Integrated Math with at least an 80% in Algebra 1B and/or teacher recommendation.

**Notes:** Most work will be done in this class through a computer-based system and work can be accessed from home.

**Full Year Class**

**Suggested Grade: 10,11,12**

**Credit: 1**

### **PRECALCULUS**

This course is a study of advanced algebra and trigonometry. We will cover advanced algebra topics such as arithmetic and geometric sequences, advanced equations and inequalities, and polynomial, rational, exponential, and logarithmic functions. Trig topics include basic right triangle and unit circle trigonometry, graphs of trigonometric functions, solving trigonometric equations, solving triangles and application of triangle problems, and the Law of Cosines/Law of Sines. A strong algebra background is required for this course and it will also require time out of class studying and practicing the covered concepts.

**Related Textbook:** Holt Precalculus

**Prerequisites:** A grade of 88% or greater in Honors Algebra 2 with at least an 80% in Geometry or a grade of 93% or greater in Algebra 2 with at least an 80% in Geometry and/or teacher recommendation.

**Notes:** Students will utilize graphing calculators and/or Desmos throughout this course. Having your own graphing calculator is highly recommended.

**Full Year Class**

**Suggested Grade: 11,12**

**Credit: 1**

### **CALCULUS**

This course is offered for dual enrollment and is an extended study of functions using fundamental concepts of calculus: limiting behaviors, derivatives, rates of change, the definite integral, ant derivatives and indefinite integrals, and the Fundamental Theorem of Calculus. Students will use these concepts then to solve a variety of real-world problems. A strong algebra background is required and students must have strong analytical and critical thinking. This course will also require time out of class studying and practicing the concepts being covered. Advanced algebra concepts will be reviewed at the beginning of the course and students will need to recall these without much reteaching.

**Related Textbook:** Holt Calculus

**Prerequisites:** A grade of 88% or greater in Precalculus and/or teacher recommendation.

**Notes:** Students will utilize graphing calculators and/or Desmos throughout this course. Having their own graphing calculator is highly recommended. This can be taken as a Dual Enrollment Class through Mount Aloysius College. Registration for the college credit takes place in the fall.

**Full Year Class**

**Suggested Grade: 12**

**Credit: 1**

## ***Course Descriptions***

### **STATISTICS**

This course is offered for dual enrollment and is designed to acquaint students with the methods of gathering, organizing, analyzing, and describing descriptive statistics, as well as interpreting descriptive data with the intent of applying it to inferential statistics. The use of the principles of probability will be utilized greatly in the interpretation and analysis of statistical problems. Students will learn of discrete and continuous distributions, with a heavy emphasis on the application of normal distribution. They will test a variety of hypotheses and make inferences based on the testing.

There will be many real-world applications of these statistical processes. This is a fast-moving course and strong critical thinking will be required to achieve success. There will be required work outside of the classroom that will be necessary to the understanding of concepts.

**Related Textbook:** Elementary Statistics by Mario Triola

**Prerequisites:** A grade of 80% or greater in PreCalculus, a grade of 85% or greater in Algebra 2 and Geometry, and/or a grade of 93% or greater in Business Math/Accounting and/or teacher recommendation.

**Notes:** Students will utilize some technology/software throughout this course, particularly the TI-83/84 graphing calculator. Having their own graphing calculator is recommended. This can be taken as a Dual Enrollment Class through Mount Aloysius College. Registration for the college credit takes place in the fall.

**Full Year Class**

**Suggested Grade: 12**

**Credit: 1**

### SCIENCE DEPARTMENT

#### **BIOLOGY**

In Biology, we will be learning about 5 major units. These units include Introduction to Biology, Ecology, Cells, Genetics, and Evolution. In Introduction to Biology, we will discuss the science of biology, the scientific method, the nature of matter, and the chemistry of life. In Ecology, we will discuss ecological hierarchy, energy, characteristics of populations, human impact on resources, and biodiversity. In Cells, we will discuss cell structure, cell function, cellular transport methods, photosynthesis, cellular respiration, and mitosis. In Genetics, we will discuss Mendel's experiments, Punnett squares, patterns of inheritance, meiosis, transformation, DNA, replication, RNA, translation, transcription, protein synthesis, mutations, selective breeding, and genetic engineering. In Evolution, we will discuss Darwin, natural selection, the theory of evolution, adaptation vs. variation, the relationship between genetics and evolution, molecular evolution, evolution of populations, speciation, scientific and evolutionary classification, fossils, and Earth's early history.

**Prerequisites:** Science 7 and 8

**Notes:** The Keystone Biology Exam is administered at the conclusion of this course. Students must pass Keystone trigger course for pathways to graduation.

**Full Year Class**                      **Suggested Grade: 9**                      **Credit: 2**

#### **GENERAL SCIENCE**

General Science introduces four major areas in science—energy and matter, the living world, planet earth, and space. Students thus become acquainted with the basic ideas upon which a number of sciences are built, including Earth Science, Astronomy, Biology, Physics, and Chemistry.

**Full Year Class**                      **Suggested Grade: 10,11,12**                      **Credit: 1**

#### **CHEMISTRY**

This course covers the background and origin of chemistry. We will look in depth at the periodic table, how to identify which elements are positively or negatively charged, and how to combine these positively and negatively charged elements to form ionic compounds. We will also look at how to create a chemical equation and how to identify which elements react to form new compounds. The students will be able to calculate the number of atoms, molecules, and ions in a given weight of a particular element. Finally, the students will examine gas laws and identify how volume, temperature, and pressure interact.

**Prerequisites:** Algebra and Biology

**Full Year Class**                      **Suggested Grade: 10, 11, 12**                      **Credit: 1**

## ***Course Descriptions***

### **CHEMISTRY II**

The second year of chemistry study begins with a review of Chemistry I principles and continues on to the energies of chemical change, rates of reactions and equilibrium, acid-base properties and reactions, electrochemistry, and an introduction to biochemistry, organic chemistry, and nuclear chemistry. This class includes procedural labs to reinforce topics discussed.

**Prerequisites:** Chemistry I

**Full Year Class**

**Suggested Grade: 11, 12**

**Credit: 1.4**

### **PHYSICS**

This full-year course covers a broad variety of physics. The topics covered include motion, displacement and force in both one and two dimensions. We examine vibrations, waves, and sound. The class focuses on rotational motion as well as gravitation. Finally, the class will conclude with forms of energy and how work is produced from each type of energy.

The class also includes procedural labs to reinforce different topics discussed.

**Prerequisites:** Chemistry, Precalculus

**Full Year Class**

**Suggested Grade: 12**

**Credit: 1.4**

### **ANATOMY**

In Anatomy, we will be learning about 6 major units. These 6 units include Levels of Organization, Support and Movement, Integration and Coordination, Transport, Absorption and Secretion, and The Human Life Cycle. In Levels of Organization, we will discuss the chemical basis of life, cells, cellular metabolism, and tissues. In Support and Movement, we will discuss the integumentary system, skeletal system, and muscular system. In Integration and Coordination, we will discuss the nervous system, the senses, and the endocrine system. In Transport, we will discuss blood, the cardiovascular system, the lymphatic system, and immunity. In Absorption and Excretion, we will discuss the digestive system, nutrition, the respiratory system, and the urinary system. In The Human Life Cycle, we will discuss the reproductive system, pregnancy, growth, development, and genetics.

**Prerequisites:** Biology

**Full Year Class**

**Suggested Grade: 11-12**

**Credit: 1**

## ***Course Descriptions***

### **HORTICULTURE**

Students will explore the use and history of plants in modern landscapes before designing their own landscape. Furthermore, students will explore the science of plant growth through the operation of the schools greenhouse. Finally, the class will explore different marketing and management methods through the plant sale.

**Prerequisites:** Introduction to Agriculture Strongly Encouraged

**Notes:** CASE Course - Articulation Agreement with Rutgers University and Delaware Valley University

**Full Year Class**

**Suggested Grade: 10-12**

**Credit: 1**

### **ANIMAL SCIENCE**

Students will explore the use of animals in society from both a current and historical perspective. Students will study the anatomy and physiology of animals the functions of key body systems. Finally, students will understand how to properly care for and house animals.

**Prerequisites:** Introduction to Agriculture Strongly Encouraged

**Notes:** CASE Course - Articulation Agreement with Rutgers University and Delaware Valley University

**Full Year Class**

**Suggested Grade: 10-12**

**Credit: 1**

### **NATURAL RESOURCES**

Students will explore the natural world around them. Different topics to be covered include: soil science, forestry management, wildlife and aquatic habitats. In addition, students will explore renewable energy and green technologies. Throughout the entire course, students will be asked to reflect on the interaction between humans and the environment.

**Prerequisites:** Introduction to Agriculture Strongly Encouraged

**Notes:** CASE Course - Articulation Agreement with Rutgers University and Delaware Valley University

**Full Year Class**

**Suggested Grade: 10-12**

**Credit: 1**

### SOCIAL STUDIES DEPARTMENT

#### **AMERICAN CULTURES II**

American Cultures II is a course that covers American history and all aspects of American culture from approximately 1890-present. In this course, we examine each time period covering a variety of areas that relate to American life. These areas include history, geography, economics, government, citizenship, popular culture (music, sports, fads), science, technology, and daily life.

**Prerequisites:** American Cultures I

**Full Year Class**                      **Suggested Grade: 9**                      **Credit: 1**

#### **WORLD CULTURES**

World Cultures is an exploration of world history beginning in the ancient worlds of Greece and Rome to the battlefields of World War II and Vietnam. In this world history class there is also emphasis on all areas of the globe including the Aztecs in Mexico, Samurai culture in Japan, and African imperialism. Students will design a number of individual projects as well as traditional assessments.

**Full Year Class**                      **Suggested Grade: 10**                      **Credit: 1**

#### **HIGH SCHOOL PSYCHOLOGY**

In this course, we examine why we think and behave the way we do. We analyze a variety of topics dealing with our behavior and mental processes. Once we understand our thinking and behavior, it will enable us to improve ourselves as human beings. We begin with principles of behavior and advance through topics including the brain, motivation and emotion, consciousness, learning, memory, intelligence, lifetime psychological development, gender differences, stress and health, and psychological disorders.

**Full Year Class**                      **Suggested Grade: 10, 11, 12**                      **Credit: 1**

#### **CIVICS**

Civics is a course that covers all of the various different aspects of our American government, including how it began and how it operates today. In this course, the students will learn how our government works and what they can do to affect it. The students will also learn of their rights and responsibilities as American citizens. The goal of the course is to prepare students to give students a working knowledge of government and to prepare them to be contributing members of society. We begin with the basic forms of government and proceed to cover the origins of American government, the Constitution, the legislative branch, the executive branch, and finish with civil rights and civil liberties.

**Full Year Class**                      **Suggested Grade: 11**                      **Credit: 1**



## Course Descriptions

### HEALTH & PHYSICAL EDUCATION DEPARTMENT

#### **PHYSICAL EDUCATION 9**

P.E. 9 will meet five times a week for two semesters. The course is designed to promote, through a variety of planned activities, every students optimal physical, mental/emotional, and social development. The class will provide opportunities for activity and sport that all students may enjoy and can pursue throughout their lives. Activities will include: Capture the Flag, Ultimate Frisbee, Ultimate Ball, Soccer, Flag Football, Volleyball, Basketball, Dance, 4-Square, Shuffleboard, Weight Training, and Fitness Walking. Fitness testing will include: Sit-ups, Push-ups/ Pull-ups/Flexed Arm Hang, Shuttle-run, Sit & Reach flexibility, Mile-run, and jump rope ability.

**Notes:** Students will be required to have sneakers and appropriate athletic apparel. Students who have asthma or respiratory conditions must have inhalers available during class.

**Full Year Class                      Suggested Grade: 9                      Credit: 1**

#### **PHYSICAL EDUCATION 10**

P.E. 10 will meet five times a week for one semester. The course is designed to promote, through a variety of planned activities, every students optimal physical, mental/emotional, and social development. The class will provide opportunities for activity and sport that all students may enjoy and can pursue throughout their lives. Activities will include: Badminton, Kan Jam, Capture the Flag, Ultimate Frisbee, Ultimate Ball, Soccer, Flag Football, Volleyball, Basketball, 4-Square, Shuffleboard, Weight Training, and Fitness Walking. Fitness testing will include: Sit-ups, Push-ups/ Pull-ups/Flexed Arm Hang, Shuttle-run, Sit & Reach flexibility, Mile-run, and jump rope ability.

**Notes:** Students will be required to have sneakers and appropriate athletic apparel. Students who have asthma or respiratory conditions must have inhalers available during class.

**Semester Class                      Suggested Grade: 10                      Credit: 0.5**

#### **HEALTH 10**

This class will meet five times a week for one semester. Health 10 is taught in gender segregated classrooms. The course is designed to enhance students' healthy lifestyle and educate them on how to make appropriate choices that lead to overall improved wellness. The focus of health skills will be: In depth study of the function, structure, problems, and prevention techniques within the systems of the human body. Other units to be covered will be First Aid/ CPR, substances that lead to addiction, managing weight, eating disorders, safety and injury prevention, and responsible choices within relationships.

**Prerequisites:** Health 7

**Notes:** Students must have a notebook and pencil to complete classroom and homework assignments.

**Semester Class                      Suggested Grade: 10                      Credit: 0.5**

#### **PHYSICAL EDUCATION ELECTIVE**

This class will meet four or five times a week for two semesters. The course is designed to promote, through a variety of planned activities, every students optimal physical, mental/emotional, and social development. The class will provide opportunities for activity and sport that all students may enjoy and can pursue throughout their lives. Activities offered will be: Volleyball, Basketball, Weight training, Fitness walking, Pilates, and Outdoor activities weather permitting.

**Prerequisites:** PE 10

**Notes:** Students will be required to have sneakers and appropriate athletic apparel. Students who have asthma or respiratory conditions must have inhalers available during class. Students will be expected to interact with each other in a respectable and friendly manner. This class is offered twice during the school day. Credit will vary based on how many days you are scheduled.

**Full Year/Semester Class                      Suggested Grade: 11, 12                      Credit: 1/0.5**

# FOREIGN LANGUAGE DEPARTMENT

### **FOREIGN LANGUAGE TO BE DETERMINED ON AVAILABILITY OF TEACHER... INFORMATION BELOW IS BASED ON LAST YEAR CLASSES**

#### **SPANISH I**

This course is an introduction into the Spanish language and culture. It is designed to focus on vocabulary, grammar, and sentence formation. We will discuss cultural aspects of Spanish speaking countries where the students will have the opportunity to also study geography, history, and common customs/practices of Spanish speaking countries. Students will be assessed by the following: tests, homework, projects, verbal presentations, listening, reading, and writing activities. All Spanish classes will focus on the 5C's of Language Learning: communication, comparisons, connections, culture, and community.

**Full Year Class**

**Suggested Grade: 8**

**Credit: 1**

#### **SPANISH II**

This course is designed to strengthen the four basic skills in a language: Reading, Writing, Speaking and Listening. This course reviews the basic principles from Spanish I and continues to build a foundation for communication development. Exposure to large amounts of vocabulary and grammar is required to communicate in the target language. Students will practice more extensively oral communication and personal narratives. All Spanish classes focus on the 5C's of Language Learning: communication, comparisons, connections, culture, and community.

**Prerequisites:** 80% average in Spanish I is recommended.

**Full Year Class**

**Suggested Grade: 9**

**Credit: 1**

#### **SPANISH III**

Spanish III is designed to further develop and strengthen Spanish language skills at a proficient level. We will review grammar concepts from Spanish I and II before starting new tenses and grammar concepts. This course will improve your reading, writing and comprehension skills by utilizing new reading resources and developing dialogues. In addition, there will be an emphasis on speaking and accurately pronouncing the target language. Students will also look at resources such as film, short stories, and audio files.

**Prerequisites:** Minimum of B in Spanish II

**Class**

**Suggested Grade: 10-11**

**Credit: 1**

Spanish  
**Full Year**

#### **SPANISH IV**

Spanish IV has an emphasis on grammar, vocabulary, literature, and culture to strengthen a student's proficiency in Spanish. Students will reinforce reading, speaking, listening, and writing skills through individual and group activities. Students will also expand their vocabulary of new topics and review grammatical concepts and verb tenses previously learned in Spanish I-III courses. Students will be expected to use the target language on a daily basis.

**Prerequisites:** Minimum of B in Spanish III

**Notes:** Dual Enrollment Class—must have teacher signature to schedule. Students may choose to pay for the college credit. A bill will be mailed to each family from ACM upon registration. This class is taught by ACM staff.

**Full Year Class**

**Suggested Grade: 11-12**

**Credit: 1**

## Course Descriptions

### ART & ELECTIVES DEPARTMENT

#### INTRO TO ART

This class is an overview of Drawing, Painting, Sculpture and Ceramics. Students will engage in a variety of lessons that explore art history, media skills, cultural differences, and self expression.

**Full Year Class**

**Suggested Grade: 9**

**Credit: 1**

#### VISUAL ARTS

This class is suggested for students that enjoy multiple forms of art. The class will explore a variety of creative art topics with a focus on art elements and principles. Media may include, but is not limited to drawing, painting, sculpture, clay, digital and multimedia arts. A variety of interesting subject matter and themes will be explored throughout this year long course.

**Prerequisites:** Intro to Art and/or teacher recommendation

**Full Year Class**

**Suggested Grade: 10, 11, 12**

**Credit: 1**

#### STUDIO ART

This class explores the visual art through painting, drawing, ceramics, sculpture, printmaking, digital, and 2 & 3-Dimensional design. Students will be able to explore art through self expression, critical thinking, and inspiration from different art movements.

**Notes:** This class can be taken as a full year course or as a semester course. Students will earn 0.5 credits for each semester.

**Full Year/Semester Class Suggested Grade: 10,11,12**

**Credit: 1/0.5**

#### MARCHING BAND

Marching band focuses on the development, rehearsal and performance of the halftime show during the fall football season. Participation in all performances and parades is required

**Prerequisites:** instrumental students must have prior experience with an instrument

**Notes:** It is expected that instrumental marching band students will continue into concert band following the marching season. Band front students are eligible to participate in Marching band only. Band front students only report to band on Fridays.

**Marking Period Class Suggested Grade: 7-12**

**Credit: 0.4**

#### CONCERT BAND

Band concentrates on the study and performance of repertoire that represents various composers, genres, and historical periods. The focus of the student's learning experience is on the continued development and application of instrumental musicianship. Participation in all public performances is required. Students who are enrolled in grades 7, 8, and 9 are eligible to participate in Blair County Junior High Honors Band. Students who are enrolled in grades 10, 11, and 12 are eligible to participate in Blair County Senior High Honors Band, and audition for the PMEA District, Region, and All-State bands

**Prerequisites:** Students are expected to have prior experience playing a musical instrument.

**Notes:** It is expected that instrumental marching band students will continue into concert band following the marching season.

**3 Marking Periods Suggested Grade: 7-12**

**Credit: 0.6**

## Course Descriptions

### **CHORUS**

Chorus concentrates on the study and performance of repertoire that represents various composers, genres, and historical periods. The focus of the student's learning experience is on the continued development and application of vocal musicianship. Participation in all public performances is required. Students who are enrolled in grades 7, 8, and 9 are eligible to participate in Blair County Junior High Honors Chorus. Students who are enrolled in grades 10, 11, and 12 are eligible to participate in Blair County Senior High Honors Chorus, and audition for the PMEA District, Region, and All-State choirs.

**Full Year Class 2 days/week      Suggested Grade: 7-12      Credit: 0.4**

### **FAMILY AND CONSUMER SCIENCE**

In this course, the students will learn basic life skills that will help them live independently. Topics covered include safety in the kitchen, proper table etiquette, and nutrition and food preparation. The students will learn how to meal plan. The students will learn how to sew, iron and wash clothes. They will also learn about identity theft, purchasing a home, renting an apartment, taxes, career decisions, financial planning, banking, consumer credit, financial security, investments and insurance.

**Notes:** This class will prepare students to live on their own after High School.

**Semester Class      Suggested Grade: 11, 12      Credit: 0.5**

### **STEM (Science Technology Engineering Mathematics)**

Students will explore topics related to STEM.

**Semester Class      Suggested Grade: 11, 12      Credit: 0.5**

### **INTRO TO AG**

Students will build their foundation of agricultural knowledge and the FFA organization. Students will study the different career opportunities available within the agricultural industry and how agriculture impacts the local community. Finally, students will be introduced to the agricultural shop and FFA competitions.

**Full Year Class      Suggested Grade: 9      Credit: 1**

### **AG MECHANICS I**

Students will gain skills to perform basic home repairs. Topics covered include electricity, plumbing, woodworking, masonry and business. Students will learn how to safely use tools, design and layout projects, and calculate costs of production.

**Prerequisites:** Introduction to Agriculture Strongly Encouraged

**Notes:** This class is offered twice during the school day. Students receive 0.5 credit for each semester.

**Full Year Class      Suggested Grade: 10-12      Credit: 1**

### **AG MECHANICS II**

Students will explore additional areas of agricultural mechanics. Students will work on small gas engines, design their own woodworking project and simulate the operation of a business.

**Prerequisites:** Introduction to Agriculture Strongly Encouraged

**Full Year Class      Suggested Grade: 10-12      Credit: 1**

## ***Course Descriptions***

### **SUPERVISED AGRICULTURE EXPERIENCE (SAE)**

In this independent and online course, agricultural students will maintain records of their Supervised Agricultural Experience using the AET system. Students will also have additional assignments and responsibilities to complete throughout the course. Students require permission from the instructor to enroll in the course.

**Notes:** Students must be enrolled in the Agricultural Program and are expected to participate in the Williamsburg FFA Activities.

**Full Year Class**                      **Suggested Grade: 9-12**                      **Credit: 1**

### **AG INTERNSHIP**

This course is only available to qualifying seniors who must apply to be considered for the program. Students will work 15 hours per week in the agricultural industry as part of their daily instruction. Students will gain real world work experience while completing their high school education.

**Prerequisites:** Must have completed 50% of Agricultural Program Course Work

**Notes:** Students will need to take an active role in establishing their Internship program.

**Full Year Class**                      **Suggested Grade: 12**                      **Credit: 1**

### **PUBLIC SPEAKING 101**

This course is designed in cooperation with Penn Highlands College to help the student build confidence in the theory and practice of public speaking, with the emphasis on the speaker-audience relationship. Skills include analyzing the speaking situation, choosing appropriate topics, conducting research, organizing ideas, utilizing evidence, using voice and body to deliver public speeches effectively to a live audience, and developing the ability to listen actively and critically.

**Notes:** This can be a Dual Enrollment Class through Penn Highlands Community College.

Registration for the college credit takes place in the fall.

**FALL Semester Class**                      **Suggested Grade: 11-12**                      **Credit: 1**

### **STUDENT AIDE**

Senior students in good academic standing may take one period of student aide. Student aides assist teachers by copying, correcting papers, filing, changing bulletin boards etc. Student aides in the elementary school often have the opportunity to work with students.

**Full Year Class**                      **Suggested Grade: 12**                      **Credit: 1**

### **LEARN & EARN**

Senior students in good academic standing may participate in Learn & Earn Work Experience Program. This program is intended for students who are employed outside of the school. This program allows SENIOR students to attend WHS for part of the day and then leave school to work for the remaining part of the school day. Students do not earn high school credit for the Learn & Earn; certain policies and procedures apply.

**Full Year Class**                      **Suggested Grade: 12**                      **Credit: 0**

## Dual Enrollment

### DUAL ENROLLMENT

DE= Dual Enrollment

These courses are offered at WHS and taught by our faculty. Students have the opportunity to register for these courses through the affiliated college/university and earn college credit. Currently, we offer courses through Allegany College of Maryland, Mount Aloysius College, and Penn Highlands Community College. Costs and registration procedures differ by college/university and typically occur in the fall. The school counselor will discuss this information with students at the beginning of the school year.

The student is responsible to see if and how these credits transfer to other colleges/universities after high school. This information can usually be found on the college/university website or by contacting the admission office. Your school counselor can also help in obtaining this information.

The following table will help when transferring credits to another college.

High School Course Name	College	College Course Name	Course #	Total College Credits
College Sociology	Allegany College of MD	Intro to Sociology	SOC101	3
College Psychology	Allegany College of MD	General Psychology	PSYC101	3
College English 101	Allegany College of MD	Freshman English I	ENGL101	3
College English 103	Allegany College of MD	Introduction to Literature	ENGL 103	3
Calculus	Mount Aloysius	College Algebra	CM112	3
Statistics	Mount Aloysius	Introduction to Statistics	CM 220	3
Public Speaking 101	Penn Highlands	Public Speaking	COM101	3
Spanish IV***	Allegany College of MD	Introductory Spanish I	SPAN-103	3

\*\*\*Spanish IV is taught by ACM staff and is 100% online.

Students that have maintained a 93% average at WHS are also eligible to take dual-enrollment courses off campus at Juniata College during their junior and/or senior years. Students must have their credits aligned to graduate at WHS and be in good standing in order to take advantage of this opportunity. Comparable college courses may be substituted for any of the major subjects. Students should begin planning for these courses early in their high school careers.