

## **Foreword**

Selecting a program of studies is one of the most important decisions a high school student must make. The broad curriculum and specific elective courses a student selects determine, to a large extent, the avenues of opportunity available during the immediate post-high school years.

This Program of Studies has been prepared by a group of teachers, the counselor, and administration. Its purpose is to provide a comprehensive presentation of the programs of study available to Wilmington Area students at the high school level. An overall understanding of the curricula enables the students, together with the parents, guidance counselor, and teachers to set goals and objectives which can be met through the thoughtful selection of courses.

## **Non-Discrimination Policy**

In accordance with applicable federal statutes and regulations, it is the policy of the Wilmington Area School District not to discriminate on the basis of race, color, national or ethnic origin, age, sex, or handicap in employment or in the administration of any of its educational programs and activities in accordance with applicable federal statutes and regulations. For information about your rights and grievance procedures or for information concerning the full range of opportunities available in Vocational Education, location of services, activities, and facilities that are accessible to and usable by handicapped persons, contact Dr. Jeffrey Matty, Title IX Coordinator or Dr. Michael O'Donovan section 504 Coordinator, Wilmington Area School District, 300 Wood Street, New Wilmington, PA 16142 (724) 656-8866, ext. 6101.

## **The Curriculum**

The curriculum of the Wilmington Area High School has been designed to help students progress toward the achievement of high academic standards. Instructional services are both comprehensive and varied: comprehensive to meet the educational demands common to all youth and varied to provide for the wide range of interests and abilities found among students of a comprehensive high school. Because Wilmington Area students are looking forward to a variety of careers and post-secondary educational opportunities, the curriculum is organized to meet the needs of those who expect to enter an institution of higher learning as well as those who expect to enter directly into the world of work.

Each curriculum has been "blocked" for each year of the student's high school career. Each "block" is a model of the required courses that the Board of Education, teaching staff, and administration believe to be a necessary part of a student's academic background. Each "block" allows for a number of electives to be chosen by the student. Ideally, these curricula will provide students with a solid background in the basics, along with the flexibility to pursue special interests through electives. It is important that students take great care in selecting the curriculum that they believe will best suit both their present abilities and future plans. The "blocks" described are recommended models; they are not required. Students may design their own curriculum to fit their own needs. However, it must be understood that too many changes may detract from the continuity and completeness of the individual's education.

Students are encouraged to consider classes that prepare graduates for careers in STEAM (Science, Technology, Engineer, Arts, Math). STEAM classes are identified by an \*

## Curricular Programs

The various programs of study offered at Wilmington Area High School may be grouped into five broad classifications: Accelerated Academic, Academic, General, Vocational, and Vocational-Technical.

- The Accelerated Academic Curriculum (Grades 9-12)

This program provides opportunities for students who have demonstrated advanced academic achievement and who show interest in pursuing a course of study which will prepare them for college. Honors English, Social Studies, Math, and Science are suggested for each year in addition to other core requirements. It is recommended that AP English, AP Biology, AP and Honors Government, Chemistry 2, Anatomy and/or Physics, AP Calculus. Foreign Language is taken in this curriculum.

- The Academic Curriculum (Grades 9-12)

This program also prepares the pupil for entrance into college, differing from the Accelerated Academic Program only in that Math and Science are not emphasized to the same levels. Core requirements are English, Social Studies, Math, and Science. Foreign Language classes are suggested each year in addition to other core requirements.

- The General Curriculum (Grades 9-12)

This program is designed for those who intend to enter the world of work immediately after graduation. The curriculum offers a basic education to provide students with the fundamental skills and knowledge they need to become self-sufficient adults.

- The Agricultural - Vocational Curriculum (Grades 9-12)

This program is designed to provide a basic education, as well as the skills necessary for a particular vocational competency. Starting in ninth grade, students will choose courses to prepare for a career in Agriculture.

- The Vocational-Technical Curriculum (Grades 10-12)

The Lawrence County Career and Technical Center, located in New Castle, offers sixteen courses of study for students in grades 10, 11, and 12. All are three-year programs and are chosen by students when they are in ninth grade. If a Career and Technical Center student wishes to return to Wilmington Area High School, they may do so, but only after attending a minimum of one semester at the Career and Technical Center.

## 2016 – 2018 NCAA ELIGIBILITY

*The NCAA Eligibility Center will certify the academic and amateur credentials of all college-bound student athletes who wish to compete in NCAA Division I or II athletics.*

[www.eligibilitycenter.org](http://www.eligibilitycenter.org)

### COURSES, GRADE-POINT AVERAGE, and TEST SCORES

#### **CORE COURSES**

- These courses are academic courses, of a college preparatory nature, taken between your ninth grade year and graduation. Ten (10) of the core courses need to be taken before the beginning of a student's senior year.
- **Check the approved list from our high school to make certain that the courses you have taken are included on the list.**
- 16 core courses are required for NCAA Division I eligibility. **Sliding scales for GPA's are utilized.**
- 16 core courses are required for NCAA Division II eligibility. **A GPA of 2.2 or above is required.**

#### DIVISION I (16 Core Courses)

4 courses of English  
3 courses of Mathematics  
(Algebra I or higher)  
2 courses of Natural/Physical Science  
(1 year of lab preferred)  
1 year of additional English, math or  
natural/physical science.  
2 courses of Social Science  
4 courses of Electives (languages, or  
comparative courses that are approved)

#### DIVISION II (16 Core Courses)

4 courses of English  
2 courses of Mathematics  
2 courses of Natural/Physical Science  
(1 year of lab preferred)  
3 courses of additional academics  
(English, math, science)  
2 courses of Social Science  
4 courses of Electives (approved)

#### **GRADE-POINT AVERAGE**

Refer to the NCAA Eligibility Center Quick Reference Guide to see all information about Grade Point Average, Test Scores, and Core Courses.

The website is [www.eligibilitycenter.org](http://www.eligibilitycenter.org).

#### **TEST SCORES**

As noted above, for Division I, test scores are reviewed with grade-point average on a sliding scale. See the Quick Reference Guide for information.

Division II has a minimum SAT score requirement of 820 (CR and M), or ACT sum of 68.

(The writing section of the SAT is not used in this calculation. The ACT score is the sum of English, math, reading, and science sections—not the composite score.)

All SAT and ACT scores must be reported directly to the Eligibility Center from the testing agency. Test scores will NOT be accepted from high school transcripts! When registering for the SAT and/or ACT, use the Eligibility Center code of 9999 to make sure that the score is reported directly to the Eligibility Center.

An excellent reference regarding NCAA Eligibility is the "NCAA Eligibility Center Guide for the

College-Bound Athlete.” This publication is available online at [www.eligibilitycenter.org](http://www.eligibilitycenter.org) or through the guidance office.

If you are planning to participate in NCAA Division I or Division II Athletics, you should begin planning your courses NOW! During your JUNIOR year, you should register online with the Eligibility Center so that your transcripts can be sent from the guidance office for review.

### **Procedure for Course Selection**

At an appropriate time, each year, secondary students, after discussions with parents, the counselor, and teachers, will make course selections appropriate to their educational and vocational goals. In making course selections, students must meet the minimum standards for each grade level, including required subjects and number of credits.

1. Students should review the entire Program of Studies booklet with their parents before choosing a particular curriculum model.
2. Students must schedule all courses necessary to meet graduation requirements.
3. A minimum of 35 class periods of instruction per week must be scheduled and maintained by each student.
4. Where "elective" is designated in each "block", a course must be chosen from the provided list of electives. In order to schedule an elective, pre-requisites must be met.
5. Any deviation or change in the program curriculum must have the approval of the counselor and administration. These will be based on the needs of the student as identified by the staff.
6. In repeating courses, the following guidelines must be met:
  - a. A student must repeat a required course that he/she fails.
  - b. It is not educationally sound to schedule a required sequential course before the preceding course is passed. Therefore, when there is a failure, the course should be repeated and passed before the next course in the sequence may be scheduled. An exception is for students with senior standing. They may take two courses in the same subject area as long as passing grades are maintained in both.
7. The course selection form must be signed by the student and the parent or guardian.
8. Students who do not meet the pre-requisite/grade requirements for a course as stated in the program of studies, may still schedule the courses, but will need one or more of the following:
  - Teacher recommendation from their present course for the desired course, or
  - Written parental permission to schedule the desired course

Additionally, a parent conference may be requested and scheduled by an administrator, guidance counselor or teacher to discuss successful course completion.

***The Wilmington Area High School Counseling Department focuses on the academic, career and personal/social developmental needs of our students. Every student is valuable and their differences are important and embraced. Each student has unique needs and goals, thus programs and activities are varied. Parental involvement is always encouraged and appreciated!***

### **Schedule Change Rules and Information**

\*Students may change schedules up to and including the **first 5 class periods**.

#### **WE CANNOT CHANGE SCHEDULES FOR THE FOLLOWING REASONS:**

- The course has already met for 5 class periods.
- Seating is limited in classes.
- A student wants a different teacher.
- A student wants the class during a different period.
- A student wants a different lunch.
- A student is not getting along with other students in the class. (Talk to the teacher and school counselor immediately)

#### **WE CAN MAKE SCHEDULE CHANGES:**

##### **Schedule Change Rules and Information:**

- Students may make Drop/Add changes to their schedules up through the first **five** days of classes.
- If a student requests to drop a class from their schedule after the drop/add period is over, the student will need administrative approval from the principal.
- Students who need the credit in order to graduate, will not be permitted to drop an elective class after the drop/add period.

#### **INCOMPLETE GRADES**

A student who receives a quarter grade of "I" has a maximum of two (2) weeks after the date of report card distribution to fulfill the requirements:

- If the student **does** satisfy the requirements, the teacher will change the quarter grade to the earned value.
- If the student **does not** satisfy the requirements, the teacher will change all incomplete assignments to a "0".
- In all instances, the "I" must be removed by the teacher and replaced by a regular letter grade.

### ***MONITORING STUDENTS' ACADEMIC SUCCESS***

The Wilmington Area SD offers an online program for parents to view students' grades, attendance, and assignments. This can be accessed by logging onto [https://sis.miu4.org/WASD\\_Live/](https://sis.miu4.org/WASD_Live/)

The counseling department strongly encourages parents to take an active role in their child's education to achieve success.

For information on how to access your child's Tyler SIS account please contact the Ken Jewell at 724-656-8866 ext. 6600 or Taryn Powell at 724-656-8866 ext. 1020.

## Graduation Requirements

The standards for graduation from Wilmington Area High School are set by the Pennsylvania Department of Education and the local Board of School Directors.

### Credits Required for Graduation

*Guidelines represent minimum requirements*

CLASS OF 2018	CLASS OF 2019	CLASS OF 2020	CLASS OF 2021
27.5 Required Credits	27.5 Required Credits	27.5 Required Credits	27.5 Required Credits
English – 4 Credits	English – 4 Credits	English – 4 Credits	English – 4 Credits
Social Studies 4 Credits	Social Studies 4 Credits	Social Studies 4 Credits	Social Studies 4 Credits
Math – 3 Credits	Math – 3 Credits	Math – 3 Credits	Math – 3 Credits
Science – 3.5 Credits	Science – 3.5 Credits	Science – 3.5 Credits	Science – 3.5 Credits
Physical Education 1.5 Credits	Physical Education 1.5 Credits	Physical Education 1.5 Credits	Physical Education 1.5 Credits
Personal Finance – .5 Credit			
Health - .5 Credit	Health - .5 Credit	Health - .5 Credit	Health - .5 Credit
Electives – 10.5 Credits	Electives – 11 Credits	Electives – 11 Credits	Electives – 11 Credits

### CREDITS REQUIRED TO ADVANCE TO THE NEXT GRADE LEVEL

CLASS OF 2018	CLASS OF 2019	Class of 2020	Class of 2021
Sophomore – 7 credits	Sophomore – 7 credits	Sophomore – 7 credits	Sophomore - 7 credits
Junior – 14 credits	Junior – 14 credits	Junior – 14 credits	Junior – 14 credits
Senior – 21 credits	Senior – 21 credits	Senior – 21 credits	Senior – 21 credits

## Work Release Guidelines

1. The work release program is limited to seniors. Work release students must have the number of scheduled classes required to meet the graduation requirements.
2. The work release program is limited to those seniors who can fit it into their schedule.
3. Students on work release must take 35 instructional periods per week.
4. Work release is a privilege which may be revoked at any time. Education always takes precedence over employment.
5. If a student on work release receives a failing grade in any subject, he or she must return to a full day school schedule and give up the privileges of work release.
6. The principal or other school officials will contact the place of employment periodically to ensure that the employment arrangements are being carried out as agreed.
7. Reasonable schedule changes will be considered.



## **Vocational Technical Curriculum (Grades 10-12)**

Students wishing to obtain training for a specific vocation may apply to attend the Lawrence County Career and Technical Center. A representative from the Career and Technical Center visits each year to inform ninth grade students of the opportunities available at the Career and Technical Center. Students who are interested apply through our school's guidance office. Admittance to the Career and Technical Center is based on interest, attitude, academic record, discipline, attendance, and citizenship. Parent guardian permission is required for admission.

Students who wish to return from the Career and Technical Center may only do so after completing at least one semester at the Career Center.

Students attend the Career and Technical Center full time in grades 10, 11, and 12. Career and Technical Center students are eligible to take part in our school's athletic and related programs. The Career and Technical Center issues the student a high school diploma, and in addition, students will receive a certificate of satisfactory completion of the vocational shop course taken.

The 2017 – 2018 Vocational Courses offered by the Lawrence County Career and Technical Center are:

- Auto Body
- Collision Repair
- Commercial Art
- Construction Trades
- Cosmetology
- Computer and Office Tech
- Electrical Occupations
- Gas and Oil Industry
- Health Assistant
- Machine and Tool Technology
- Masonry
- Medical Office
- Restaurant Trades
- Vet Tech
- Welding

## Course Descriptions

### Language Arts

#### **English 9 (EN09)**

*Grade Level:* Nine

*Credit:* One

*Materials:* Elements of Literature, Third Course Holt, Rinehart, Winston, Inc., 1997, various novels

In English nine, emphasis is placed on reading literature in various genres, accompanied by complementary writing. Grammar lessons are given throughout the year. Reading selections are taken from: *Romeo and Juliet*, *Across Five Aprils*, *Out of the Dust*, and *Lord of the Flies* among others. Student research will follow MLA format.

#### **Honors English 9 (EH09) (weighted 5 percentage points)**

*Grade Level:* Nine

*Credit:* One

*Pre-Requisite* Student interest and completed application including recommendation of prior year's English teacher, well-developed writing and discussion skills, and completion of summer reading assignments.

*Materials:* Elements of Literature, Third Course, Holt, Rinehart, Winston, 1997, various novels

This Honors level course is for students who have demonstrated outstanding ability in English and are interested in pursuing a more rigorous curriculum. Literature will be studied in depth, and advance critical thinking, composition, reading comprehension and discussion skills will be required of students. Self-motivation and independent effort are necessary to be successful in this course. Summer reading prior to the start of class is required. Student research will follow MLA format.

#### **English 10 (EN10)**

*Grade Level:* Ten

*Credit:* One

*Materials:* Elements of Literature. Harcourt Brace & Company, 1997, various novels

In addition to continuing the study of literature, grammar, and written and oral communications, sophomore English emphasizes the use of the library for writing a research paper using MLA format. Students develop creative writing projects such as the short story and poetry. Major works of world literature are chosen from the following: John Knowles' A Separate Peace, Shakespearian dramas, Harper Lee's To Kill a Mockingbird, Elie Wiesel's Night, Anderson's Speak, Charles Dickens' A Tale of Two Cities, Mark Twain's The Adventures of Huckleberry Finn, and Ernest Hemingway's Old Man and the Sea.

#### **Honors English 10 (EH10) (weighted 5 percentage points)**

*Grade Level:* Ten

*Credit:* One

*Pre-requisites:* "A" in EN09 or EH09 Student interest and completed application including recommendation of prior year's English teacher, well-developed writing and discussion skills, and completion of summer reading assignments

*Materials:* Elements of Literatures, Fourth Course, Holt, Rinehart, Winston, Inc., 1997  
Warriner's English Grammar and Composition, Harcourt, Brace and Jovanovich, 1986, The Elements of Style, William Strunk Jr. and E.B. White, Fourth Edition, Various Selected Novels, and Plays

This Honors level course is for students who have proven a seriousness of purpose in previous English courses. Study will include extensive library research using MLA format and critical analysis of all genres of literature. Technology in the computer lab will be utilized for various projects. Self-motivation and independent effort are required.

### **English 11 (EN11)**

*Grade Level:* Eleven

*Credit:* One

*Materials:* Elements of Literature, Fifth Course, Holt, Rinehart, Winston, Inc., 1997  
Vocabulary for the College Bound, Amsco, 1986, Representative American novels and plays

This course is a comprehensive study of American literature, which attempts to instill an appreciation of America's heritage. Students discuss and write about the personal, social, psychological, and critical implications of major American literary works. Writing assignments, class discussions, and projects are based on the literature read. Continuing vocabulary and grammar study will incorporate techniques valuable in preparation for taking the PSAT's and SAT's. Student research will follow MLA format.

### **Honors English 11 (EH11) (weighted 5 percentage points)**

*Grade Level:* Eleven

*Credit:* One

*Pre-requisites:* "A" in EN10 or EH10, Student interest and completed application including recommendation of prior year's English teacher, well-developed writing and discussion skills, and completion of summer reading assignments.

*Materials:* Elements of Literature, Fifth Course. Holt, Rinehart, Winston, Inc., 1997  
Representative American novels and plays

Honors English 11 is a reading and writing intensive course designed for academically talented and motivated students. Students will read and analyze a survey of American literature beginning in early American and ending in the late 20th century. This course is designed to advance students' reading, writing, speaking, and listening skills and develop their critical competencies in research writing, literary analysis, contextual vocabulary acquisition, historical literary movements, and literary theory.

### **English 12 (EN12)**

*Grade Level:* Twelve

*Credit:* One

*Materials:* Elements of Literature, Sixth Course, Holt, Rinehart, Winston, Inc., 1997  
Representative British or world novels or plays

This course makes students aware of British literature from the Anglo-Saxon period through the 20th century. With the processes of research, composition, and presentation of senior papers, students explore subjects using MLA format.

**AP English Literature (EAP12) (weighted 10 percentage points)**

*Grade Level:* Eleven and Twelve (Offered in odd graduation years)

*Credit:* One

*Pre-requisites:* A in EH11 or B in AP English as Junior, or A In EH10

Completion of two summer readings

Teacher recommendation

*Materials:* Representative British or world novels and plays

This rigorous, college-level course is designed to engage highly motivated and academically talented students in close reading and critical analysis of literature. This course will build upon previous knowledge and literary experience while increasing students' exposure to, and understanding of, various works of literature. This course will expose students to various texts drawn from multiple genres, periods, and cultures (primarily focusing on British Literature). Students will develop their close reading skills at three levels: experience, interpretation, and evaluation. Students are expected (although not required) to take the course Advance Placement English Literature and Composition Exam.

**NOTE: If a student takes AP English Literature as a junior he or she CANNOT take Honors English 12 as a senior. They must either take AP English Language or English 12.**

**AP English Language (EAP11) (weighted 10 percentage points)**

***Not Offered 2017-2018***

*Grade Level:* Eleven and Twelve Offered in even graduation years

*Credit:* One

*Pre-requisites:* A in EH11 or B in AP English as Junior, or A In EH10, Completion of two summer readings, teacher recommendation

*Materials:* Selections drawn from primarily from American Non-Fiction

This rigorous, college-level course is designed to challenge highly motivated students who are interested in becoming strong communicators with the skills to write and reason effectively and confidently in an academic setting. Students will develop reading skills in a variety of rhetorical contexts, create compositions about a variety of subjects and for a variety of purposes, and expand their literacy skills beyond the written word through the examination of graphics and visual images. Through the reading and writing of many different kinds of essays, articles, short stories, etc. (primarily focusing on American Literature), students will also develop an appreciation for the way in which conventions and language resources contribute to effective communication. Students are expected (although not required) to take the course Advance Placement English Language and Composition Exam.

**Complete Grammar, Usage, and Mechanics (ENGR)**

*Grade Level:* Ten, Eleven or Twelve

*Credit:* .5

*Pre-Requisites:* Recommended for interested students who are college bound.

This course is designed to provide college bound students with the tools and the terminology needed to dissect and understand the structure of the English language. Covered will be: parts of speech, parts of a sentence, phrases, clauses, agreement, pronoun usage, and verb usage, correct use of modifiers, common usage problems and mechanics.

### **Creative Writing (ENCW)**

*Grade Level:* Ten through Twelve

*Credit:* .5

*Materials:* TBA

In this course, students will read published material and produce material in two genres: poetry and the short story. We will read and discuss material in each genre; then students will individually produce material for each genre to submit to workshop for discussion. Finally, each student will submit a portfolio of revised material at the end of the semester for a final grade.

## **Mathematics**

### **Algebra I (MAI1)**

*Grade Level:* Nine, Ten  
*Credit:* One  
*Materials:* Glencoe Algebra I, McGraw-Hill, 2014

In this course, the concepts of algebra are taught first at the rudimentary skill level and then practiced with real-life, application based problems. *Algebra 1*, published by McGraw-Hill Education will be the textbook used in this course. This course is built on the idea that students develop a better conceptual understanding of mathematics when solving real-life problems. Throughout this course, students will be challenged to develop 21<sup>st</sup> century skills such as critical thinking and creative problem solving while engaging with exciting careers within Science, Technology, Engineering, and Mathematics (STEM) related fields. Teaching fundamental algebraic methods and properties is a focal point of this course. Graphing of equations and inequalities, as well as teaching properties and relationships of linear equations is the most heavily covered material in this course. The TI-84 graphics calculator will be introduced in this course and used to aid students in problem solving.

There will be a focus on strengthening skills required for success on the Keystone Algebra 1 exam. Keystone diagnostic testing is administered throughout the course. Results of this testing inform instruction. All pieces of Keystone Algebra 1 eligible content are taught in this course. Using a systematic approach, these 33 pieces of eligible content are covered separately in some cases and covered jointly in others. This full credit course is chiefly responsible for teaching students the math skills they need in order to score advanced or proficient on the Keystone Algebra 1 exam.

### **Geometry**

*Grade Level:* Nine through twelve  
*Credit:* One  
*Materials:* Glencoe Geometry, McGraw-Hill, 2014

Geometry is the study of shapes and lines in a plane and in space. It builds on the mathematical topics from Algebra I with an emphasis on critical thinking and problem solving and skill development. Topics will include the study of lines, triangles, polygons, circles and space figures. Students will be required to write, explain, justify, prove and analyze throughout the course in order to hone critical thinking skills.

### **Algebra 2**

*Grade Level:* Nine through twelve  
*Credit:* One  
*Materials:* McGraw Hill c. 2014  
*Pre-requisite:* Successful completion of Geometry

Intended content to be covered: Equations and inequalities, linear relations and functions, systems of equations and inequalities, quadratic functions, polynomials and polynomial functions, inverses and radical functions, exponential and logarithmic functions, rational functions, statistics and probability, and trigonometric functions. Graphing calculators will be used extensively as students incorporate technology to discover generalizations of concepts and apply these concepts to realistic situations. Students may learn several methods for solving a problem and will be asked to choose the most efficient method to complete the task.

### **Pre-Calculus (MAPC) (weighted 5 percentage points)**

*Grade Level:* Ten, Eleven, or Twelve  
*Credit:* One  
*Pre-Requisites:* Successful completion of Integrated 1, Integrated 2, Advanced Integrated 3 and teacher recommendation  
*Materials:* Functions, Statistics, and Trigonometry, Scott Foresman, 1992  
TI-84 + Graphics Calculators and Computer Base Labs

This course stresses the role of functions and graphs in developing mathematical understanding. Applications of real-life problems are vital aspects of this course. Trigonometry is approximately one-half of the course, with an emphasis on solving triangles, properties of trigonometric functions, and applications. Graphic calculators will be used on a regular basis. Projects are done each nine-week period. Statistics is applied to numerous career areas.

### **Statistics with Introduction to Calculus (MAST) (weighted 5 percentage points)**

*Grade Level:* Eleven or Twelve  
*Credit:* One  
*Pre-Requisites:* Pre-Calculus  
*Materials:* Pre-Calculus and Discrete Math, Scott Foresman, 1992  
TI-83 Enhanced Statistics, Texas Instruments, 1997, TI-84+ Graphics Calculators  
Various Statistical Resources on Web & in Journals

The first semester is designed to further students' knowledge, skills, and techniques in analyzing statistics. The graphing calculator will be used to graph, collect data, and simplify statistical applications. The second semester will include work with trigonometric identities and introduce the calculus concepts of rate of change and area under a curve. Algebra and graphing skills will be mastered in introducing the calculus. A project will be required for each semester.

### **AP Calculus (MACA) (weighted 10 percentage points)**

*Grade Level:* Eleven or Twelve

*Credit:* One

*Pre-Requisites:* Pre-Calculus and teacher recommendation

*Materials:* Calculus Graphical, Numerical, Algebraic, Prentice Hall, 2003,  
TI-84+ Graphics Calculators

Calculus is a branch of mathematics which provides methods for finding the rate at which a variable is changing (differential calculus) and finding a function when its rate of change is given (integral calculus). In this course, students will learn the theories and applications of these methods. Students will be expected to incorporate a combination of approaches including algebraic, numerical, graphical, both with and without a graphics calculator in order to solve these problems. The course will address all topics covered on the Advanced Placement Exam.

### **Practical Applications of Math**

*Grade Level:* Twelve

*Credit:* One

*Pre-Requisites:* Integrated 2 Concepts or Advanced 2

*Materials:* Mathematics for the Trades-A Guided Approach, Carman and Saunders, 2011

For those interested in skill related vocations, technicians, junior colleges, technical schools, and the military. General concepts covered: probability, applications to algebra, geometry, trigonometry, fractions, decimals, percentages, and math skills without using calculators.



## Science

### **General Requirements for Graduation**

Credits: **3.5** (Which Must Include Successful Completion of the Following)

Biology or Advanced Biology	(Grade 9)	(1.5)
General Science or Chemistry I	(Grade 10/11)	(1.0/ 1.5)
One or More Science Electives	(Grade 11 and 12)	

Proficient or Advanced on Keystone Biology Exam or Successful Completion of the Biology Project-based Assessment for students in the class of 2017 and beyond.

Science Electives: (Please refer to individual course descriptions and pre-requisites)

Conceptual Science (Required Keystone Remediation)	(1.0)
Forensic Science	(0.5)
Environmental Science	(1.0)
General Chemistry I (Pitt Course)* (5%)	(1.5)
Anatomy	(0.5)
Physiology	(0.5)
AP Biology* (10%)	(1.5)
Physics* (5%)	(1.5)

\*Denotes Weighting

### **Biology 9 with Lab (SCB1)**

*Grade Level:* Nine

*Credit:* 1.5

*Materials:* Biology, The Dynamics of Life, Glencoe McGraw Hill, 2004

Biology 9 is a Standard-based course designed to provide essential preparation for the Pennsylvania Biology Keystone Exam. The course includes inquiry-based instruction and laboratory experience, enriched with direct instruction and technology. It fosters learning that encourages students to ask valid scientific questions, while engaging in investigations to understand and explain the behavior of living things in a variety of scenarios that incorporate scientific reasoning, analysis, communication skills, and real-world applications. This course investigates the composition, diversity, complexity, and interconnectedness of life on Earth. Fundamental concepts of cells, biochemistry, bioenergetics, homeostasis and transport, cell growth and reproduction, genetics, evolution, and ecology provide a framework, through inquiry-based instruction, to explore the living world, the physical environment, and the symbiotic interactions within and between them. The curriculum will focus on eight units:

Module A- Cells and Cell Processes

1. Basic Biological Principles
2. Chemical Basis of Life

3. Bioenergetics
4. Homeostasis and Transport

#### Module B- Continuity and Unity of Life

1. Cell Growth and Reproduction
2. Genetics
3. Evolution
4. Ecology

### **Honors Biology 9 with Lab (SCAB1) (weighted 5 percentage points)**

*Grade Level:* Nine

*Credit:* 1.5

*Materials:* Biology, The Dynamics of Life, Glencoe McGraw Hill, 2004

*Pre-requisite:* Student enrollment in Advanced Biology 9 will be made on the basis of teacher recommendations, academic performance in 8<sup>th</sup> grade science and diagnostic testing.

Advanced Biology 9 is a Standard-based course designed to provide accelerated preparation for the Pennsylvania Biology Keystone Exam. This course will provide both a rigorous review and an in-depth exploration of major biological topics (please see below). The course includes inquiry-based instruction and laboratory experience including dissection, enriched with direct instruction and technology. It fosters learning that encourages students to ask valid scientific questions, while engaging in investigations to understand and explain the behavior of living things in a variety of scenarios that incorporate scientific reasoning, analysis, communication skills, and real-world applications. This course investigates the composition, diversity, complexity, and interconnectedness of life on Earth. Fundamental concepts of cells, biochemistry, heredity, evolution, and ecology provide a framework through inquiry-based instruction to explore the living world, the physical environment, and the symbiotic interactions within and between them. Due to the accelerated nature of biological content addressed, this course is reserved for students who have scored Advanced on the eighth grade Science PSSA and/or have been recommended by the science department for their proficient, yet enhanced understanding of biology.

Eligible Content: (Pennsylvania Biology Keystone Exam)

Module A: Cells and Cell Processes

- Basic Biological Principles
- The Chemical Basis for Life
- Bioenergetics
- Homeostasis and Transport

Module B: Continuity and Unity of Life

- Cell Growth and Reproduction
- Genetics
- Theory of Evolution
- Ecology

### **General Science (SCGS)**

*Grade Level:* Ten or Eleven

*Credit:* One

*Materials:* TBD

The General Science curriculum is designed to continue the investigation of the physical sciences begun in earlier grades. The General Science course will provide an extensive knowledge base and a foundation for continued study of science, particularly tailored to meet the needs of students not interested in pursuing further in-depth science curriculum. The investigations will be approached in a qualitative and quantitative manner in keeping with the developing mathematical skills of the students. The curriculum will integrate topics from the chemistry, physics, and earth science curriculum.

### **Chemistry 1 with Lab (SCC1)**

*Grade Level:* Ten, Eleven or Twelve

*Credit:* 1.5 (Labs)

*Pre-requisites:* Completion of Algebra I with a minimum 85%

*Materials:* Chemistry: Connections to Our Changing World, Lemay, Beall, Robblee, Brower, 2000

In this course, students are introduced to the concepts of atomic structure, chemical bonding, writing equations, the solution process, radioactivity, and basic organic compounds. Students learn these through classroom discussions, showing mathematical relationships, and laboratory discovery methods.

### **General Chemistry I with Lab: (CHEM 0110) (Pitt College in the Classroom) (weighted 5 percentage points) (Formerly Chemistry II)**

*Grade Level:* Ten through twelve

*WAHS Credit:* 1.5 (Labs)

*Pitt Credit:* Four (Labs)

*Pre-requisites:* Successful completion of Chemistry I of 75% or higher, and Geometry/Algebra 2

*Materials:* The recommended text for this course is General Chemistry - 9th ed. or later, by Ebbing and Gammon; Houghton/Mifflin Publishing, now Cengage.

This course is a "College in the High School" course. Students may take the course for Pitt College credit or without the college credit. This course is the first half of a two-term introduction to general chemistry in college. Topics include atomic theory, molarity, gases and kinetic theory, thermochemistry, electronic structure and the periodic table, relationships between phases, ionic solutions and acid/base theories, redox reactions, carbon chemistry, rates of reactions, chemical equilibria, and thermodynamics. This course requires laboratory sessions and exams on the University of Pittsburgh campus.

### **Organic Chemistry**

*Grade Level:* Ten through twelve

*Credit:* .5

*Materials:* TBA

*Pre-requisite:* Successful completion of Chemistry I of a 75% or higher, Chemistry II is recommended, but not required.

The course is designed to provide an overview of organic chemistry to students interested in pursuing a career in the sciences. Organic chemistry is the study of compounds containing carbon. Students will explore the major classes of functional groups, including the relationship between structure and function of molecules, reaction mechanisms, synthesis of organic compounds, and how to determine structure via various spectroscopic techniques. Several themes are prevalent in each unit of study: nomenclature, chemical and physical properties, structures, mechanisms, and common molecules.

### **AP Biology with Lab (SCAP) (weighted 10 percentage points)**

*Grade Level:* Eleven or Twelve

*Credit:* 1.5

*Pre-requisites:* Successful completion of Biology and Chemistry 1.

*Materials:* Biology, 5th Edition, Solomon, Berg, Martin, 1999

The course is designed around the AP Biology Curriculum Framework that focuses on the major concepts in biology and their connections. Additionally, the Curriculum Framework provides a basis for students to develop a deep conceptual understanding as well as opportunities to integrate biological knowledge and the science practices through inquiry-based activities and laboratory investigations without having to teach a textbook from cover to cover.

--AP<sup>®</sup> Biology (CollegeBoard) Syllabus 3

AP Biology is a complex, laboratory-based course that builds upon field observation, analysis of scientific data, natural history, behavior, and identification, to provide an in-depth and cross-sectional study of living organisms (equivalent to an introductory-level collegiate biology course.) Throughout this course, students will explore a plethora of biological topics related to the four fundamental principles (“Big Ideas”) governing all living organisms and biological systems. The goal of this course is to further examine the living world around us through the implementation of an inquiry-based curriculum, focused on enduring biological understandings and essential knowledge, while providing clear learning objectives. This course provides students with an opportunity to develop an enduring conceptual framework of modern biology, while encompassing the best scientific practices and cross-curriculum collaborations; it also emphasizes biological knowledge and critical thinking to address environmental and social concerns (see below for additional details). However, because this is an AP-level course, our study will take a very advanced and accelerated approach to the realm of biological science and will include a variety of research methods, assignments, and laboratory investigations designed to prepare students for the AP Biology Exam and subsequent collegiate courses. Students are encouraged to take the Advanced Placement Exam upon completion of the course.

### **Physics with Lab (SCPH) (weighted 5 percentage points)**

*Grade Level:* Eleven or Twelve

*Credit:* 1.5

*Pre-requisites:* Pre-Calculus

*Materials:* College Physics, Saunders College Publishing, 1995

The goal of this course is to use a plethora of scientific concepts, mathematical equations, and experimental assumptions to not only describe, but to make predictions about a broad range of physical phenomena. The course emphasis is equally divided between developing a conceptual understanding of

the major topics of physics and developing problem solving skills in such topic areas. Algebra and trigonometry will be used extensively throughout. Emphasis will be put on understanding the theories at hand, while simultaneously, identifying them in everyday life through experimental design. Students will be expected to undertake and report on laboratory projects related to the topics in the class. Student will demonstrate entry-level proficiency typical of a first year physics course on the following topics:

- Newtonian Mechanics
- Classical Thermodynamics
- Vibrations and Wave Phenomena
- Optics and Light
- Electromagnetism
- Modern Physics

### **Forensic Science (SCFS)**

*Grade Level:* Ten through twelve

*Credit:* .5

*Pre-Requisites:* Biology and Chemistry 1 or General Science

This course is designed to expose students to the science behind forensic investigations, while simultaneously linking laboratory analysis to real world applications (forensic entomology, fingerprinting, DNA analysis, blood typing and spatter analysis, trajectories, forensic Anthropology, and chemical analysis of drugs, poisons, and trace evidence. Students will learn about forensic-related careers and will take part in mock exercises as experts in the field to solve crimes. Students will acquire the skills necessary to interpret data, as well as the specific techniques involved in the analysis of both chemical and biological evidence. The goal of the course is to prepare our students for citizenship and advance their knowledge of science and how it fits in to the world we live in. The course is designed to motivate students to continue to explore alternate fields of science, as well as to foster student interest in the learning process, especially as it relates to the field of forensic science.

As a result of this course, students will:

Become familiar with the forensic process from the crime scene to the courtroom

Obtain hands-on experience performing various forensic techniques

Understand the science behind significant forensic cases in history

Acquire a better scientific background in order to evaluate current criminal cases and forensic applications

Get real-world exposure to the field of forensic science

### **Environmental Science (SCPS)**

*Grade Level:* Eleven or Twelve

*Credit:* One

*Pre-requisites:* Successful completion of two Science credits, including Biology

*Materials:* Environment and Ecology for Pennsylvania, Meeting the Standards, Globe Pearson, 2003

The curriculum is designed to educate students about the importance of a watershed. Students will monitor the chemical, physical, and biological parameters of a stream. Students will study curriculum units on watersheds and wetlands, renewable and nonrenewable resources, Environmental Health, Agriculture and Society, Integrated Pest Management, Ecosystems, and their interactions, threatened, endangered and extinct species, humans and the environment, and environmental laws and regulations.

## **Conceptual Science (SCKCS)**

*Grade Level:* Ten or Eleven

*Credit:* One

*Pre-requisites:* Keystone Exam Scores

*Materials:* Keystone Finish Line Biology, Continental Press 2014

Conceptual Science is an interdisciplinary, standard-based course designed to further foster student understanding of fundamental biological and chemical principles. The course is specifically formulated to meet the needs of students who require additional review of biological topics and further opportunities to refine their scientific reading and writing skills to be successful in the area of biological sciences. The course will employ a number of instructional/ diagnostic strategies to promote Keystone proficiency, while simultaneously provoking scientific thought in the areas of biology and chemistry. Course instruction will provide a rigorous and comprehensive review/clarification of the Eligible Content established by the Pennsylvania Department of Education, with primary focus on such Biology concepts as Biochemistry, Homeostasis and Cell Transport, Bioenergetics, Mitosis and Meiosis, Mendelian genetics, Evolution and Ecology; and such Chemistry topics as Atomic Theory, Changes in Matter, Reactions, Significant Figures, Mole Concepts, and Gas Laws. This course is the remediation course for students that did not meet the state score expectation.

## **Anatomy (SCAN)**

*Grade Level:* Ten through twelve

*Credit:* .5

*Pre-requisites:* Biology / Chemistry 1 or General Science

*Materials:* Essentials of Human Anatomy & Physiology. 8th edition, Pearson, 2006

In this course, the students will use both a system and regional approach to uncover the anatomy (structure) of the heart, respiratory, lymphatic, appendicular and axial musculoskeletal systems, as well as the nervous system. This information will enable students to recognize the individual structures within each system and have an understanding of why we are “put together” the way we are.

## **Physiology**

*Grade Level:* Ten through twelve

*Credit:* .5

*Pre-requisites:* Biology / Chemistry 1 or General Science

*Materials:* Essentials of Human Anatomy & Physiology. 8th edition, Pearson, 2006

The focus of this course will be the functionality of the heart, respiratory, lymphatic, appendicular and axial musculoskeletal systems, as well as the nervous system. Students will obtain the basic information for each of these systems in regards to “how they work” and what their roles/jobs are within the human body.

## **Social Studies**

### **Civics and Government 9 (SS09)**

*Grade Level:* Nine

*Credit:* One

*Materials:* Building Citizenship / Civics and Economics, McGraw Hill 2014

This course provides a survey of the organization of American government, which includes an over view of the historical significance and an emphasis on the provisions of the United States Constitution. The organization and functioning of the legislative, executive, and judicial branches at the federal level are analyzed. The objective of the course is for students to arrive at a more comprehensive understanding of American Government and to apply their roles and politics and to lay the proper foundation for informed citizenship.

### **Honors Civics and Government 9 (SS09) (weighted 5 percentage points)**

*Grade Level:* Nine

*Credit:* One

*Materials:* Building Citizenship / Civics and Economics, McGraw Hill 2014

*Prerequisites:* Summer assignments and readings, teacher recommendations from the previous year's English and Social Studies teachers.

Honors Social Studies classes are content aligned courses that are designed to provide an intensive workload to the students through independent study, complex tasks and product-based assessments. They will expand upon the requirements of the academic level class to meet student needs.

This course provides a survey of the organization of American government, which includes an over view of the historical significance and an emphasis on the provisions of the United States Constitution. The organization and functioning of the legislative, executive, and judicial branches at the federal level are analyzed. The objective of the course is for students to arrive at a more comprehensive understanding of American Government and to apply their roles and politics and to lay the proper foundation for informed citizenship.

### **American History (SS10)**

*Grade Level:* Ten

*Credit:* One

*Materials:* US History and Geography - Modern Times, McGraw Hill 2014

The year will begin with an evaluation of the domestic and foreign policies of the United States throughout our history and how these policies affect one another. The course will focus on the people who have impacted our nation's history, various political and economic policies practiced, and challenges that have faced our nation. Emphasis towards an appreciation of our heritage and what it means to be an American will be approached. Concept learning will be emphasized. A comparison of primary and secondary sources will be practiced, and completion of projects will be required.

### **Honors American History (SS10) (weighted 5 percentage points)**

*Grade Level:* Ten

*Credit:* One

*Materials:* US History and Geography - Modern Times, McGraw Hill 2014

*Prerequisites:* Teacher recommendations from the previous year's English and/or Social Studies teachers.

Honors Social Studies classes are content aligned courses that are designed to provide an intensive workload to the students through independent study, complex tasks and product-based assessments. They will expand upon the requirements of the academic level class to meet student needs. The year will begin with an evaluation of the domestic and foreign policies of the United States throughout our history and how these policies affect one another. The course will focus on the people who have impacted our nation's history, various political and economic policies practiced, and challenges that have faced our nation. Emphasis towards an appreciation of our heritage and what it means to be an American will be approached. Concept learning will be emphasized. A comparison of primary and secondary sources will be practiced, and completion of projects will be required.

### **World History 1450 - Present (SS11)**

*Grade Level:* Eleven

*Credit:* One

*Material:* World History and Geography - Modern Times, McGraw Hill 2014

Description: This course is thematically organized to cover the institutions of religion, economy, and government throughout the known world. By examining various cultures, students will garner an understanding of the impact these civilizations. There will be an added emphasis on linking the past with the present to make essential connections to the modern world.

### **Twentieth Century World History (HIST 205) (BC3 College in the Classroom Course) (weighted 5 percentage points) (Formerly Honors World History 11)**

*Grade Level:* Eleven

*WAHS Credit:* One

*BC3 Credit:* Three

*Material:* TBA

In this course students will analyze such major issues of the Twentieth Century as the causes of World War I, the development of totalitarianism, consequences of World War II, the conflict between America and the Soviet Union during the Cold War, and the place of developing nations in the world community.

### **United States Political Science (SS12) (Formerly Government)**

*Grade Level:* Twelve

*Credit:* One

*Materials:* American Government, Holt, Rinehart and Winston 2003



This course provides a survey of the organization of American government, which includes an overview of the historical significance and an emphasis on the provisions of the United States Constitution. The organization and functioning of the legislative, executive, and judicial branches at the federal level are analyzed. Additionally, economic principles and theory will be examined. The objective of the course is for students to arrive at a more comprehensive understanding of American government, politics, and economics in order to lay the proper foundation for informed citizenship.

### **Advanced Placement American Government (SSAP12) (weighted 10 percentage points)**

*Grade Level:* Twelve

*Credit:* One

*Materials:* American Government, Institutions & Policies, Wilson, Dilulio, and Bose 2015

*Pre-Requisites:* An "A" in World History or a "B" in Honors World History. Teacher Recommendation is required.

AP Government offers students the opportunity to read and analyze materials in a college-level text and various primary and secondary sources as they study the relationship between politics and government. This course includes a comprehensive study of the art of politics and the workings of contemporary American political behavior as a primary social force. Students with a special interest in political science, law, or citizen political involvement will participate in a variety of activities which will allow them to apply theory into practice. Attention will also be given to comparative government, political frameworks, and political change. The grade for this course is weighted. Students are expected (although not required) to take the course Advance Placement Government Exam.

### **Advanced Placement United States History (weighted 10 percentage points)**

*Grade Level:* Eleven and Twelve

*Credit:* One

*Materials:* TBD

*Pre-Requisites:* An "A" in World History or a "B" in Honors World History. Teacher Recommendation is required.

AP US History focuses on developing students' understanding of American History from 1491 to the present. Students will investigate key events, individuals, developments, and processes in the historical time periods. Students will use the same methods employed by historians when they study the past. As an elective, this course allows juniors and seniors the opportunity to earn three college credits if they are able to pass the AP US History exam in May.

### **General Psychology (PSYC 201)**

#### **(BC3 College in the Classroom Course) (weighted 5 percentage points)**

*Grade Level:* Ten through twelve

*WAHS Credit:* One

*BC3 Credit:* Three

*Materials:* TBA

This course is an introduction to the basic concepts and methods of psychology. This course is an introduction to the scientific study of behavior.

### **Practical Law (SSPL)**

*Grade Level:* Ten through twelve

*Credit:* .5

*Materials:* Street Law, 1999

Practical Law offers a practical approach in providing information and problem-solving opportunities that develop into student knowledge and skills necessary for survival in our law-saturated society. This class will include a field trip to the Lawrence County Court House and a tour of the Lawrence County Jail.

## **Foreign Language**

### **French 1 (LAF1)**

*Grade Level:* Eight through Twelve

*Credit:* One

*Materials:* C'est a toi, level 1 EMC Paradigm publishing

In French 1, students learn the basics of reading, writing, and speaking in French. Focus is on elementary vocabulary and essential verb conjugations in the present tense as well as correct pronunciation. Students will also study French customs and traditions and various regions and cities in France as well as communicating with French speakers in France and other countries.

### **French 2 (LAF2)**

*Grade Level:* Nine through Twelve

*Credit:* One

*Materials:* C'est a toi, level 2 EMC Paradigm publishing

In French 2, students will build on the vocabulary and grammar points learned in French one and will acquire new verb tenses, including the future and conditional tenses. French 2 includes extensive units on French cuisine and Paris.

### **French 3 (LAF3) (weighted 5 percentage points)**

*Grade Level:* Ten through Twelve

*Credit:* One

*Materials:* C'est a toi, level 3 EMC Paradigm publishing or Controversies, Thomson

*Pre-requisites:* A 75% in French 2 and teacher recommendation

French 3 marks a transition from a more elementary grammar and vocabulary driven curriculum to a more advanced curriculum whose sequence is determined by the themes and topics covered in class. These topics will vary from year to year and will include elements of French popular culture such as comics, children's books, music, television and movies and elements of French history, politics, and controversial issues. Grammar elements such as the future tense, several past tenses and direct and indirect object pronouns will be covered within this context.

### **French 4 (LAF4) (weighted 5 percentage points)**

*Grade Level:* Eleven or Twelve

*Credit:* One

*Pre-requisites:* A 75% in French 3 and teacher recommendation

*Materials:* C'est a toi, level 3 EMC Paradigm publishing or Controversies, Thomson

In French 4, students will continue to work with authentic texts and audiovisual documents in French. As in French 3, the sequence of the curriculum will be determined by the topics covered in class. The topics will vary from year to year and will include elements of French popular culture such as comics, children's books music, television, and movies and elements of French history, politics, and controversial issues. Grammar elements such as the conditional tense, the passé simple, and the subjunctive will be covered within this context. This course will also focus on natural, spontaneous oral and written communication in French.

### **Intermediate College French I (FR 0003) (Pitt College in the High School Course) (weighted 5 percentage points)**

*Grade Level:* Eleven or Twelve

*Credit:* Three

*Pre-requisites:* A 75% in French 3 and teacher recommendation

*Materials:* C'est a toi, level 3 EMC Paradigm publishing or Controversies, Thomson

This course is Intermediate College French 1. High School students will take this course instead of French IV. The University of Pittsburgh College in High School class focuses on spoken and written French and on making and defending arguments. Each chapter focuses on a different controversial issue and asks students to examine both sides of the argument before choosing a side and arguing for it

through writing, speaking, and projects. Topics focus on cultural differences between countries including how friendship varies between cultures, the role of school in society, how much control the government should have over individual freedoms, and gender inequalities. **This course is only offered every other year.**

### **Spanish 1 (LAS1)**

*Grade Level:* Eight through Twelve  
*Credit:* One  
*Materials:* Paso a Paso 1, Scott Foresman, 2000

Spanish 1 introduces students to basic vocabulary and grammar structure which helps develop reading, writing, speaking, and understanding of simple phrases and sentences. Aural activities with tapes and videos are incorporated into the course. Culture is also explored. Conversations are used to help the student become more confident in the oral use of the language. Students also use Spanish in projects, such as creating greeting cards, clothing catalogs, house plans, family trees, and picture games.

### **Spanish 2 (LAS2)**

*Grade Level:* Nine through Twelve  
*Credit:* One  
*Materials:* Paso a Paso 2, Prentice-Hall, 2000

Spanish 2 is an intense grammar course with a concentration on four verb tenses-preterit, imperfect, present, and past progressive. In addition, more complicated grammar structures will be addressed, such as comparatives, superlatives, reflexive verbs, negative constructions and the use of direct and indirect object pronouns. Students will have the opportunity to use this grammar, along with new vocabulary in developing their speaking, reading, writing and listening skills.

### **Spanish 3 (LAS3) (weighted 5 percentage points)**

*Grade Level:* Ten through Twelve  
*Credit:* One  
*Materials:* Paso a Paso 3, Prentice-Hall, 2000  
*Pre-requisites:* A 75% in Spanish 2 and teacher recommendation

Spanish 3 concentrates on the development of the student's writing and speaking skills. This course includes a review of all grammar concepts taught in Spanish 1 and 2. New material includes commands and perfect tenses. Students will have many speaking and writing opportunities in this course. This course also includes the study of Spanish history, geography, culture and art.

### **Spanish 4 (LAS4) (weighted 5 percentage points)**

*Grade Level:* Eleven or Twelve  
*Credit:* One

*Pre-requisites:* A 75% in Spanish 3 and teacher recommendation

*Materials:* Paso a Paso 3, Prentice-Hall, 2000, Galeria de Arte v Vida Repaso

In Spanish 4, students further develop their language skills in reading, writing, speaking, and listening. More complex forms of the language are explored. Students' horizons are broadened through materials on Spanish culture. Creative projects in writing and speaking are an important part of this course.

## **Business Education**

### **Accounting I (BTA1)**

**Available 18-19 school year**

**Offered every other year**

*Grade Level:* Ten through Twelve

*Credit:* One

*Materials:* Century 21 Accounting 8E, Thomson South-Western, 2006. Zenith Global Imports, merchandising corporation simulation, Internet Research and Microsoft Excel

Through Accounting 1, students acquire an understanding of the basic accounting cycle using double-entry accounting. Both manual and computerized skills learned can be applied in personal financial affairs, small business management, post-secondary studies, and seeking employment immediately following graduation. This course incorporates Microsoft Excel as an industry leader in organizing financial records. Students are required to create and maintain Excel spreadsheets utilizing formulas and functions learned from the computer applications class. Students who complete the first year accounting course will feel a great sense of pride and accomplishment.

### **Sports and Entertainment Marketing**

**Next offered in 19-20 school year**

**Offered every other year**

*Grade Level:* Nine through Twelve

*Credit:* .5

*Materials:* Sports and Entertainment Textbook, Virtual Business Simulation Software

Sports and Entertainment Marketing is a course that is designed for students interested in sports, entertainment, and event marketing. Emphasis is placed on the following principles as they apply to the industry: branding, licensing and naming rights; business foundations; concessions and on-site merchandising; economic foundations; promotion; safety and security; and human relations. Students will also learn marketing strategies including sponsorship, marketing research, pricing, endorsements, and promotions.

## **Photoshop I**

*Grade Level:* Nine through Twelve  
*Credit:* .5  
*Materials:* Adobe Photoshop and Adobe InDesign

### **(Adobe Creations)**

Adobe Creations will focus on two Adobe Products: Adobe Photoshop CS5 and Adobe InDesign CS5. Adobe Photoshop is a graphic design program that focuses on picture editing. Adobe InDesign is a desktop publishing program. The program can be used to create posters, flyers, brochures, magazines, newspapers and books. Along with teacher demonstration, students will work collaboratively and independently on several in-class assignments and projects.

## **Photoshop II**

*Grade Level:* Nine through Twelve  
*Credit:* .5  
*Prerequisite:* Photoshop I  
*Materials:* Adobe Photoshop and Adobe Illustrator

This advanced class builds on your existing knowledge of Photoshop and expands your list of creative techniques. The course really drills design related techniques but also explores the real-world realities that apply to the everyday use of Photoshop. Projects will focus on ones that are designed to be printed. Students will also be introduced to Adobe Illustrator.

## **Web Site Design & Development (Pitt College in the High School) (weighted 5 percentage points)**

*Grade Level:* Ten through Twelve  
*WAHS Credit:* .5  
*Pitt Credit:* Three  
*Pre-Requisite:* None  
*Materials:* *Murach's HTML5 and CSS3*, Zak Ruvalcaba and Anne Boehm; Murach

The purpose of this course is to provide a basic understanding of the methods and techniques of developing a simple to moderately complex Web site using the standard Web page language XHTML, Dreamweaver or comparable, and JavaScript. Students also will learn Web site design and layout techniques as well as basic search engine analysis.

## **Intermediate Web Site Design & Development (Pitt College in the High School) (weighted 5 percentage points)**

*Grade Level:* Ten through Twelve  
*WAHS Credit:* .5  
*Pitt Credit:* Three  
*Prerequisite:* Web Page Design & Development

Materials: Murach's HTML5 and CSS3, Zak Ruvalcaba and Anne Boehm; Murach

The purpose of this course is to provide a basic understanding of the methods and techniques of developing a simple to moderately complex Web site using the standard Web page language XHTML, Dreamweaver or comparable, and JavaScript. Students also will learn Web site design and layout techniques as well as basic search engine analysis.

**Introduction to Computer Programming (CS 0007)  
(Pitt College in the High School) (weighted 5 percentage points)**

*Grade Level:* Ten through Twelve

*WAHS Credit:* One

*Pitt Credit:* Three

*Prerequisite:* Familiarity of computers and programs is assumed for this course

*Materials:* *Starting Out with Java 5: From Control Structures Through Objects*, 6<sup>th</sup> ed., by Tony Gaddis

This is a first course in computer science programming. It is recommended for students intending to major in computer science who do not have the required background for CS 0401. The focus of the course is on problem analysis and the development of algorithms and computer programs in modern high – level language.

**SWAT – Students Working Advanced Technology**

*Grade Level:* Ten through Twelve

*Credit:* One

*Materials:* Real World Technical Applications

SWAT is a real world technical application course for students. This course is for 10<sup>th</sup> through 12<sup>th</sup> grade students in small numbers. **Students MUST apply to take this course.** An application will be distributed to any interested student. Students can expect to work hands on in a variety of different technical areas such as managing the school website, managing social media, technology maintenance and several new technology adventures. Furthermore, students will also learn the ethics behind some of the technological aspects of the school such as posting on social media or the school website. Additionally, students will also learn many social skills such as organization, public speaking, interviewing, teamwork and leadership. ***Students must have taken and/or taking concurrently the Pitt Introduction to Computer Programming course to be eligible for the SWAT course.***

**Entrepreneurship (BTEP)  
Offered every other year**

**Available 18-19 school year**

*Grade Level:* Ten through Twelve

*Credit:* .5

*Materials:* Entrepreneurship and Small Business Management, Glencoe, 2000.

Developing a Business Plan, Scans 2000; Thomson Learning, 20001--automated mall simulation Internet Research and Microsoft Office

This course is designed to prepare students to own and/or operate a business. Students will learn the

skills necessary to develop a business plan, analyze cost and economic issues, advertise and market a business, and manage personnel. Much of the in-class work is complete as company partners and the use of the Internet is an intricate part of researching up-to-date business concepts.

**Personal Finance**  
**Offered every other year**

**Available 18-19 school year**

*Grade Level:* Eleven and Twelve

*Credit:* .5

*Materials:* Managing Your Personal Finances 6th Edition, Cengage Learning, 2010.  
Virtual Business—Personal Finance gaming, Knowledge Matters 1.0, 2008.

Preparing students to make life-changing financial decisions is the main goal for this course. The economic climate that we live in continues to evolve and change without regard to current knowledge about issues that affect money. Graduating without some basic strategies for correct monetary use, Wilmington Area students will have a great disadvantage in a highly competitive and technical marketplace. Topics include: Career Development ePortfolio, Work Laws and Responsibilities, Money Management, Financial Security, Credit Management, Resource Management, Consumer Rights and Responsibilities, and Risk Management.

## **Fine Arts**

**DEPARTMENT MISSION:** The mission of the Wilmington Area School District fine arts department is to educate students to be critical thinkers and aesthetic appreciators of the arts. The visual and performing arts offer unique opportunities to teach to students' various learning styles. We offer a holistic education centered on understanding theory and pedagogy that extends to personal creativity, the highest form of thinking. Students in the fine arts program will not only become more knowledgeable musicians and artists in the classroom, but will also be able to transfer that knowledge to our community and society at large. It is through this comprehensive K-12 program that students not only achieve excellence in chorus, band, drama, music and art, but that they also know how to collaborate as a team and present themselves well in public settings.

### **Music Theory and Composition**

*Grade Level:* Ten through Twelve

*Credit:* One

*Pre-requisites:* Either 1 semester or 1 year of Band or Chorus

Music Theory and Composition is an advanced course in the study of music theory. Students will learn the theoretical concepts necessary to enter a collegiate music program and use these concepts to develop basic composition skills. Topics covered include scales, modes, chord structure, harmonic progressions, and four-part writing. This is not an introductory course and requires a prerequisite of Band or Chorus as it builds upon the concepts taught in those ensembles. Special exceptions to the prerequisites must be approved by the teacher of this course.



### **Chorus (CH01 – 1 credit) (CH02 - .5 credits)**

*Grade Level:* Nine through Twelve

*Credit:* One or .5

*Pre-requisites:* Must complete simple vocal audition at the end of the previous school year or at the beginning of the current school year. Students should possess an ability to sing, willingness to work hard, and attitude necessary to be in an outstanding musical group.

Chorus seeks to further develop those musical skills begun in elementary and middle school chorus. Students will develop sight-reading skills, aural skills, and proper vocal technique while preparing for performances. Musicianship, discipline, and attitudes needed for outstanding performance are stressed. Opportunities for performing include school productions, evening concerts, and programs for local organizations. Students are required to attend all performances as part of the nine-weeks grade.

### **Women's Choir**

*Grade Level:* Nine through Twelve

*Credit:* One

*Pre-requisites:* Must complete and pass advanced vocal audition at the end of the previous school year. To take this class, you **MUST** have approval by the Choir Director.

Women's Choir is designed for female students who possess an advanced knowledge of music, strong sight-reading abilities, strong aural abilities, and good vocal technique. Students in this auditioned group will learn and perform all of the music from regular chorus while preparing their own pieces for performance. Opportunities for performing include school productions, evening concerts, and programs for local organizations. Students may only sign up for Women's Choir after completing the advanced vocal audition with the choir director and receiving approval. Students are required to attend all performances as part of the nine-weeks grade.

### **Band (BAND) (Concert Band & Marching Band)**

*Grade Level:* Nine through Twelve

*Credit:* One

*Pre-requisites:* Mastery of fundamentals of instrument and Band Camp

In this course, students develop the fundamental skills necessary to perform with their instrument in a group and individually. Students in the high school band program will be required to participate in both marching band, concert band, and pep band throughout the year and will perform at various music festivals, sporting events, and school assemblies as scheduled by the director. Summer rehearsals and attendance at Band Camp during the last week of July each summer will emphasize developing the marching skills needed to perform in parades and at football games. Proper attitudes toward team work, care of equipment, discipline, and respect for one another will be fostered through group participation. Enrollment in high school band will also allow students to participate in extra-curricular instrumental

activities such as Jazz Ensemble, PMEA festivals, and County Band Festivals each year. Students may be required to purchase various materials used each year. Fundraisers will be made available to assist in the purchase and funding of any band student's expenses.

## **Art Courses**

Students must have a strong interest in art, good time management skills, and a willingness to work hard to be successful in art classes. Course offerings must be taken in successive order. All students are required to purchase a sketchbook. Basic materials will be provided; however, students may be responsible for purchasing various materials throughout the school year if needed for individualized projects. Teacher recommendation will be considered in student's placement in course. ***The curriculum and the projects will differ from semester to semester during the course of one school year to reflect an introductory course and an advanced course. These courses are only able to be taken twice over the course of a four- year period.***

### **Art Foundations**

*Focus:* The introduction to and exploration of 2D & 3D art

*Grade:* Nine through Twelve

*Credit:* .5

*Prerequisites:* none

This course introduces the student to the creation of a variety of art forms. The elements of art and principles of design, plus the individual's creativity, will be the catalyst for students to complete two-dimensional and three-dimensional art work. Students will be introduced to basic visual communication, presentation and critique. Areas of study will include drawing, painting, printmaking, ceramics, fiber arts and mixed media. Research and writing are requirements of all art courses. Students will occasionally be required to purchase materials. All art courses address Pa art standards. Art history is a component of all art courses and subject matter may include studies of the human form, religious references and political viewpoints that differ from our own.

### **2D Media**

*Focus:* Drawing and painting

*Grade:* Nine through Twelve

*Credit:* .5

*Prerequisites:* none

This class will involve aspects of drawing and painting. Two dimensional mixed media work may be introduced. Students will obtain a strong foundation in both drawing and painting. Students will become confident in drawing from observation. Realistic drawing skills will develop as well as techniques in shading, composition and expanding overall creativity. Once students are comfortable with drawing skills, they will be introduced to painting. Acrylic and watercolor materials, their care and techniques will be covered. The elements of art and the principles of design, as well as the individual's creativity, will be the catalyst from which students complete 2D work. Research and writing are requirements of all art courses. Students will occasionally be required to purchase materials. All art courses address PA art standards. Art history is a component of all art courses and subject matter may include studies of the human form, religious references and political viewpoints that differ from our own.

### **World Art**

*Focus:* Cultural forms and methods

*Grade:* Ten through Twelve

*Credit:* .5

*Prerequisites:* Art Foundations or 2D Media required

In this course, students will explore art forms from around the world. Through the ages, art has remained a viable means of communication and inspiration throughout the world. Students will study the history, geography and art of various cultures and complete studio projects in the styles of indigenous cultures. Areas of study may include drawing, painting, printmaking, ceramics, fiber arts and mixed media. The elements of art and the principles of design, plus the individual's creativity, will be the catalyst for students to complete artwork. Research and writing are requirements of all art courses. Students will occasionally be required to purchase materials. All art courses address PA art standards. Let it be noted that art history is a component of all art courses and subject matter may include studies of the human form, religious references and political viewpoints that differ from our own.

### **Ceramics**

*Focus:* Clay hand building techniques and sculpture

*Grade:* Ten through Twelve

*Credit:* .5

*Prerequisites:* Art Foundations or 2D Media + teacher recommendation

This course will introduce students to three dimensional art constructed from clay. The students will study about and create both functional and decorative forms using various hand building methods and sculpting techniques. A variety of surface decoration and glazing techniques will be explored. Independent planning and work will be expected of students. The elements of art and the principles of design, plus the individual's creativity, will be the catalyst for students to complete aesthetic 3D forms. Research and writing are requirements of all art courses. Students will occasionally be required to purchase materials. Art history is a component of all art courses and subject matter may include studies of the human form, religious references and political viewpoints that differ from our own.

## **Practical Arts**

### **Introduction to Engineering**

Formerly (EDD1)

*Grade Level:* Nine through Twelve

*Credit:* One

*Materials:* AutoCAD Software 2016

Introduction to Engineering serves to introduce students to technical drawing, computer aided drafting, and engineering concepts. The use of math concepts is required to assist the process of design, measurement, and computer modeling. The student will acquire an understanding of mechanical drawing tools, sketching, orthographic projections, isometric drawings, 2D and 3D computer drawings. Students will use the computer aided drafting software AutoCAD 2016. Students are responsible for and

graded on participation, quizzes, projects, and final exams. Students must receive a 70% or higher in this course to move on to the other engineering courses offered.

### **Engineering Design**

Formerly (EDD2)

*Grade Level:* Ten through Twelve

*Credit:* One

*Prerequisite:* 70% or better in Introduction to Engineering

*Materials:* Autodesk Software

Engineering Design is intended for students who enjoy math, science, design, or technology. It is for intermediate level students who are interested in furthering their knowledge of mechanical drawing and/or Autodesk software. Students will apply the software and mechanical drawing to various engineering design challenges throughout the class. This class is the foundation for those interested in architecture, engineering, carpentry, blue print reading and other trades. Students will demonstrate proper labeling, dimensioning, sectioning of orthographic and isometric drawings, along with 3D modeling. This class requires students to attend on a regular basis as the tools and commands are continually built upon throughout the year. Students are responsible for and graded on participation, quizzes, projects, and final exam.

### **Architectural Design**

Formerly (EDD3)

*Grade Level:* Ten through Twelve

*Credit:* One

*Prerequisite:* 70% or better in Introduction to Engineering

*Materials:* Autodesk 2016

Architectural Design is intended for the student who wishes to build on his/her mechanical drawing skills. Students will need to use problem solving skills and work in a team environment. This class is designed as a preparation for entry-level drafting positions. Students will use drafting and design software from the Autodesk 2016 package. Students will research, learn, and use floor plans, site development, and blueprint reading to explain the solution to a given architectural problem. This class requires students to attend on a regular basis as the tools and commands are continually built upon throughout the year. Students are responsible for and graded on participation, quizzes, projects, and final exam.

## **Introduction to Welding**

*Grade Level:* Nine through Twelve  
*Credit:* .5  
*Materials:* TBA

Students will be introduced to careers in metal fabrication, how each one of the major welding processes work, and the history of welding. Students will learn the basics of soldering, brazing, oxy acetylene welding/cutting, plasma cutting, SMAW (Shielded Metal Arc Welding), MIG (Metal Inert Gas) Welding, TIG (Tungsten Inert Gas) Welding, as well as safety in working in such an environment. This class requires students to attend on a regular basis as the tools and equipment are only available in the classroom. Students are responsible for and graded on participation, quizzes, projects, and final exam.

## **Materials Processing I (IND1)** (Formerly Industrial Arts 1)

*Grade Level:* Nine through Twelve  
*Credit:* One  
*Materials:* Various materials and Safety Guide

Materials Processing I consists of demonstrations and hands-on activities pertaining to basic woodworking techniques. Throughout this course, a variety of hand, portable power, and stationary machines will be used, with a strong emphasis on safety. Each student will receive demonstrations for each individual tool and machine to be used in the class. Additionally, each student will demonstrate machine understanding and proficiency by operating each machine while being closely supervised by the instructor. Each student will be required to pass individual safety tests with a score of 80% or higher in order to operate any machinery. Demonstrations and safety tests will be re-taught until each student can demonstrate machine operation to a high degree of efficiency.

There will be a number of projects that will be worked on throughout the school year. The first several projects will be decided on by the instructor for the entire class to individually construct. The projects that are selected will range from a beginner level project and gradually become more difficult and more detailed as each projected becomes completed. Upon completion and grading of required projects, students will have the opportunity to apply their knowledge and skills learned to construct a project of his/her choosing.

## **Materials Processing II (IND2)**

(Formerly Industrial Arts 2)

*Grade Level:* Nine through Twelve  
*Credit:* One  
*Prerequisites:* Materials Processing I  
*Materials:* Various materials and Safety Guide

In Materials Processing II students will practice and refine basic skills developed in Materials Processing I to produce more advanced projects that are built to closer tolerances. Advanced machines will be demonstrated and used along with a strong emphasis on safety. As in Materials Processing I, each student will receive demonstrations for each individual tool and machine to be used in class. Additionally, each student will demonstrate machine understanding and proficiency by operating each machine while being closely supervised by the instructor. Each student will be required to pass individual safety tests with a score of 80% or higher in order to operate any machinery. Demonstrations and safety tests will be re-taught until each student can demonstrate proper machine operation with a high degree of efficiency.

There will be a number of projects that will be worked on throughout the school year. The first few projects will be decided on by the instructor for the entire class to individually construct. The projects that are selected will start at an intermediate level and gradually become more difficult as each project becomes completed. Upon completion and grading of required projects, students will have the opportunity to apply their knowledge and skills learned to construct a project of his/her choosing with at least one working feature (example: door, drawer, etc.)

## **Advanced CNC Design and Manufacturing**

Formerly (EDD4 / IND 3 & 4)

*Grade Level:* Eleven and Twelve  
*Credit:* One  
*Prerequisite:* 70% or better in Engineering Design or Architecture Design and a 70% or better in Materials Processing I  
*Materials:* See Below

Advanced Computer Numerical Control (CNC) Design and Manufacturing is intended for students who demonstrate advanced technical skills and are highly motivated. This class will further develop knowledge in the areas of engineering as it relates to manufacturing and prototyping. Determination of an area of individual focus will be decided with the guidance of the instructor. Students will use the Autodesk software to develop parts and 3D print the prototypes, create 2D tool paths for parts using the

CNC router, plasma cutter, or other similar equipment, as well as work with their hands to solve complex problems. This class requires students to attend on a regular basis as the lessons are continually built upon thorough the year. Students are responsible for and graded on participation, quizzes and projects.

## **Family and Consumer Science**

### **Family and Consumer Science (FCS1)**

*Grade Level:* Nine through Twelve

*Credit:* .5

*Materials:* TBA

The class is one semester long. Topics covered include: relationship skills, nutrition & wellness, organizational skills needed for success, and career explorations. Students have the opportunity to demonstrate skills learned through various projects, quizzes and tests. Students are exposed to various speakers from the community and surrounding areas as well.

## **Agriculture**

A student who wishes to be considered a “Completer” of the Agriculture Program upon graduation must take two agriculture credits a year for each of his/her four years in high school. Students considered “completers” are also required to take the NOCTI exam. In addition, he/she must sign up for the Supervised Agriculture Experience (SAE) each year. Students planning a future in Agriculture education should plan to take additional Math, Industrial Arts and technical electives. Students planning to study agriculture in college should make sure that they meet the math and language requirements of the college.

All students enrolled in Agriculture courses are encouraged to join and experience the FFA program and take advantage of the leadership opportunities it has to offer.

### **Forestry (AGFW)**

*Grade:* Nine through Twelve

*Credit:* .5

*Materials:* Introduction to Forestry Science, Delmar Publishing, 2008



Students will learn and have a basic understanding of forestry. During this course we will study career opportunity in the above areas, as well as forestry practices, forestry regions, importance of natural resources and individual species of wildlife and trees.

### **Wildlife**

***Not Offered 2017 -2018***

*Grade:* Nine through Twelve

*Credit:* .5

*Materials:* Wildlife and Natural Resources Management, Delmar Publishing, 2003

Students will learn and have a basic understanding of wildlife and natural resources. During this course, we will study career opportunity in the above areas, as well as identification of species, care and habitat management, importance of natural resources and individual species of wildlife and trees.

### **Food Science (AGFS)**

***Not Offered 2017 -2018***

*Grade Level:* Eleven and Twelve

*Credit:* One

*Materials:* Introduction to Food Science, Delmar Publishing, 2003

This class is an excellent overview for anyone interested in attaining a basic understanding of food science. Students learn about different types of foods, food composition, food processing, food preservation and other aspects of the food industry. Also included is information about the different categories of foods, environmental concerns, food safety regulations, labeling and careers in food science.

### **Landscaping (AGLA)**

*Grade Level:* Nine through Twelve

*Credit:* One

*Materials:* Landscaping Principles and Practices-6th Edition, Delmar Publishing, 2004

This class is an introduction to basic landscaping principles and design. Success as a landscape professional requires not only mastery of horticultural skills, but also the business aspects of the industry. Landscaping Principles and Practices thoroughly examines both the horticultural and business aspect of the industry. The class includes such skills as graphic design, installation, maintenance, pricing, human resource management, contract development, and the use of industry-specific technology. Computer technology will be used to design landscapes.

### **Animal Science (AGAS)**

*Grade Level:* Nine through Twelve

*Credit:* One

*Materials:* Modern Livestock and Poultry Production, Delmar Publishing, 2008

Students will learn and have a basic understanding about the breeds, reproduction, health, care and management of large animals in the agricultural industry as well as career opportunities available in the animal industry. These will include dairy, sheep, pigs, beef, and poultry.

### **Small Gas Engines (AGSG)**

***Not Offered 2017 -2018***

*Grade Level:* Ten through Twelve

*Credit:* .5

Students will learn and gain a basic understanding of how small engines work and operate. Students will learn operation and theory as well as assembling small engines. They will also have a basic understanding of troubleshooting engines.

### **Equine Management (AGEM)**

***Not Offered 2017 -2018***

*Grade Level:* Eleven and Twelve

*Credit:* One

*Materials:* Equine Science, Delmar Publishing, 2003.

This course will familiarize students with all aspects of the equine industry. This will include history, feeding, care, equine health management, judging and selecting horses, diseases, laws, career opportunities and more.

### **Veterinary Science (AGVS)**

*Grade Level:* Ten through Twelve

*Credit:* One

*Prerequisite:* Biology

*Materials:* Introduction to Veterinary Science, Delmar Publishing, 2005.

Students will learn about the different aspects of being a veterinarian. This will include studies of all of the various animal systems including circulatory, respiratory, renal, digestive, reproductive and nervous. Studies will also include nutrition and how different species compare. Diseases, classifications, diagnosis, and disease prevention will be studied. The daily lives of veterinarians will be explored, including basic principles of surgery.

### **Small Animal Care (AGSA)**

*Grade Level:* Nine through Twelve

*Credit:* One

*Materials:* Small Animal Care and Management, Delmar Publishing, 2002.

Students will learn about small animal care, safety, animal rights and animal welfare, careers in small animal care, nutrition and digestive systems of small animals. Animals studied will include: dogs, cats, rabbits, reptiles, amphibians, ferrets, hamsters, guinea pigs, birds and fish.

### **Introduction to Agriculture Education**

*Grade Level:* Nine

*Credit:* .5

Students will be introduced to the opportunities in Agricultural Education and learn about animals, plants, soils, forestry, wildlife, natural resources, landscaping, and the career areas available in the above mentioned. They will also be introduced to leadership opportunities and personal development.

### **Leadership / Personal Development (AGLP)**

*Grade Level:* Nine

*Credit:* .5

Students will learn about communication, personal development, public speaking, personality types and styles, goal setting, time management, employability, and parliamentary procedures. They will be encouraged to use skills in real life and expand on their knowledge to pursue a career path based on personal characteristics.

### **Electricity (AGEL)**

*Grade Level:* Nine through Twelve

*Credit:* .5

*Material:* Agricultural Mechanics: Fundamentals and Applications, Delmar Publishing, 1997.

Students will study how electricity works and learn how to wire circuits. They will learn about the various tools and materials that are used, as well as applications and career opportunities.

### **Building Trades**

*Grade Level:* Eleven and Twelve

*Credit:* .5

Students will explore a variety of aspects in the building and construction careers. Students will explore masonry, concrete, electricity, framing, plumbing, building design and other aspects that are included in

the business. They will learn about career options in these areas through research and industry representatives.

### **Ag Business**

*Grade Level:* Eleven and Twelve  
*Credit:* .5  
*Material:* Agribusiness: Decisions and Dollars

Students that are going to be completing the Agriculture program and take the NOCTI will need to schedule this class.

Students interested in agriculture business will benefit from this class. The class will focus on how financial management is vital in organizing and managing personal resources in agriculture. This class attempts to bring the record keeping and financial management commonalities together to introduce new concepts designed to keep agriculture current with today's financial practices.

### **Agriculture Welding**

*Grade Level:* Nine through Twelve  
*Credit:* .5

Students will learn about careers in metal fabrication, how each one of the major welding processes and the history of welding. Students will learn the basics of shielded metal arc welding, MIG welding as well as torch cutting. Students will also be able to work with the Plasma cam in designing and cutting metal.

### **Supervised Agriculture Experience (SAE1), (SAE2), (SAE3), (SAE4)**

*Grade Level:* Nine through twelve  
*Credit:* One

Supervised Agricultural Experience Programs are experience-based business and work ventures which help students enhance their decision making and record keeping skills. Ag Science completers are required to have an SAE project to accompany their regular class work during each school year. Usually this project extends into the summers after grades 9, 10 and 11. Projects require teacher supervision for credit.

## **Physical Education**

**DEPARTMENT MISSION:** The mission of the Wilmington Area School District's Physical Education Department is to educate minds, develop healthy bodies, and promote positive attitudes towards lifetime physical activity, fitness, and sports skills. With a quality physical education program in place, each student will be empowered with the knowledge and skills necessary to make responsible lifestyle choices that directly impact his/her health and wellbeing.

### **Health 11 (PEHE)**

*Grade Level:* Eleven, Twelve

*Credit:* .5

*Materials:* Glencoe Health, Glencoe, 2004

This course is designed to keep students up-to-date on current health standards. Units of study will include, but are not limited to, the following: alcohol, tobacco, and other drugs, human sexuality, reproduction and STDs, physical fitness, nutrition, and safety.

### **Physical Education (PE 9,10,11)**

*Grade Level:* Nine, Ten, and Eleven

*Credit:* .5

*Materials:* School gym uniform, athletic shoes, and a notebook

This course is designed to promote an active lifestyle, help build the foundation for determining what activities best suit each student's needs, teach the basic principles of conditioning, nutrition, and the body's systems and their reaction to activity and their relationship to exercise. Evaluation will be subjective and objective, based on participation, sportsmanship, skill testing, written tests and projects. Students are required to wear appropriate attire during PE classes. The activities include, but are not limited to: weight training, flexibility, cardiovascular activities, and determining nutritional needs.

Physical activity is critical to the development and maintenance of good health and overall well-being. The goal of Physical Education class is to develop physically educated individuals who have the knowledge, skills, and confidence to enjoy a lifetime of healthful physical activity. The class includes instruction and participation in various physical fitness activities, individual lifetime activities, sports, and team sports. Included in this but not limited to the following: flag football, ultimate football, ultimate Frisbee, soccer, team handball, mat ball, wiffle-ball, basketball, volleyball, crazy cricket, hockey, pickle-ball, table tennis, bocce, corn hole, badminton, cardio-respiratory, muscular strength, muscular endurance, and flexibility workouts. Students will be challenged in a variety of different methods to foster one's overall physical, mental, social, and emotional well-being. Students will be challenged in a variety of different methods to foster one's overall physical, mental, social, and emotional well-being.

### **Physical Education Summer / Independent Physical Education Class**

*Grade Level:* Nine, Ten, and Eleven

*Credit:* .5

*Materials:* School gym uniform, athletic shoes, and a notebook

*Time Frame:* Three hours a day for ten days/fifteen hours each nine weeks

***\*There is a non-refundable course fee of \$50 to enroll and participate in this course. Additionally, students are required to provide transportation to the school and to community based activity sites.***

***\*There may also be additional costs (up to \$50) for activity fees or equipment rental at community locations (i.e....bowling, golf, etc...)***

This course is designed to offer students at Wilmington Area High School the opportunity to meet or recover Physical Education credits toward graduation.

This class involves instruction and participation in both lifetime and fitness activities. The activities offered will vary depending on program enrollment and the facilities available. Activities may include but are not limited to: swimming, cycling, golf, bowling, pickleball, tennis, archery, cardiorespiratory fitness, and strength training.

The course will be split into two time frames. First, the class will meet for three hours a day Monday through Friday for two weeks in the summer totaling 30 hours. Second, during the school year, students will be required to participate in an independent study physical education class and record physical activity they complete using the Internet website software Daily Fit Log or a similar software application. Students will be required to complete 15 hours of physical activity each nine weeks for a total of 60 hours. Students will need to have an adult, approved by the physical education teacher, to sign off that they completed the recorded activities. Students are required to wear appropriate attire during PE class.

If a student is involved in a school sponsored extracurricular activity that is approved by the physical education department they may use that to meet the requirement as follows: First activity is worth 15 credit hours, second activity is worth 15 more credit hours, third activity is worth 15 more credit hours. Activities include the following: all varsity sports, band, band front, cheerleading.

## **GPA and Class Rank Description**

Wilmington Area High School computes GPA and class rank using a percentage grade point average. The class rank formula will give weight to both the difficulty of courses selected and the total number of credits a student has earned. This formula is based on the premise that it is to a student's benefit to schedule more courses in place of study halls, and to select courses with higher levels of difficulty.

**When calculating class rank**, AP Courses will be weighted by adding ten (.10) percentage points to the earned grade.

**A minimum 75% must be earned in order to receive the weighting of ten (10) percentage points.**

AP Courses include:

AP English Literature and Language  
AP Biology  
AP Calculus  
AP Government and Economics  
AP US History

**When calculating class rank**, accelerated and honors courses will be weighted to calculate class rank by adding five (.5) percentage points to the earned grade.

**A minimum 75% must be earned in order to receive the weighting of five (5) percentage points.**

Accelerated / Honors Courses include:

Pre-Calculus	Physics
Statistics with Intro to Calculus	Pitt Chemistry Course
French 3, 4	Pitt Web Page Design Course
Spanish 3, 4	Pitt Intro to Computer Programming
Honors English 9, 10	BC3 General Psychology
Honors Biology 9	BC3 Twentieth Century World History
Honors Civics 9	
Honors American History 10	

**The EARNED grade will be reported on the student's report card. The WEIGHTED grade will be used in calculating class rank and GPA. The weighted grade will not show on the report card.** Class rank is calculated during the course of the student's four years in high school, and throughout the senior year until the end of the third nine weeks. The graduating Top Ten students are determined by the cumulative QPA calculated up until the end of the third nine weeks of the senior year.

**Grade Forgiveness and class rank**, this is appropriate when a student chooses to repeat a course. Only the higher grade will be the grade used to calculate the Quality Point Average and Grade Point Average. The lower grade will be lined – out on the transcript.